

A Gesture Theory of Communication

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THESIS

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I came to the University of Illinois at Chicago with the hope that Communication Studies, nestled at the heart of the Social Sciences as English Literature and Rhetoric are nestled in the heart of the Humanities, would allow me to combine my interests in language, cognition, and rhetoric (as communication process, theory, and philosophy) with my interests in technology. I was right. It might have something to do with the fact that the communication doctoral program was brand new when I arrived and has remained (thanks only to budgetary strictures) relatively small, but I have largely been left alone to pursue my own multidisciplinary interests. And I am very grateful for that.

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1. SUMMARY: FROM BYTE TO LINE TO SPACE

This dissertation aims to integrate a variety of disciplinary perspectives on communication and interaction in order to address a set of broad methodological issues in the study of communication and digitally mediated communication, in particular. One symptom of these problems is that the study of digital media as ‘new’ media has generally been limited—or even defined—by a fetishization of novelty. This novelty fetish has tended to generate short-lived bursts of scholarly activity focused on specific media technologies or platforms, which have had the compounded effect of reinforcing the usually unstated assumption that digitally mediated communication is something *different in kind* from typical human interaction. This understanding of mediated communication is related to an uncritical reliance on methods of analysis that ignore the limitations and constraints inherent in the processes by which ‘data’ and ‘information’ are constituted. The digital character of networked media technologies as information technologies can make the reliance on information-theoretical methods and assumptions seem perfectly natural, but, among other things, this reinforces the assumption that digitally mediated interaction is inherently different from—is of a wholly different logical order—than typical human interaction, typically explained in terms of digital media’s ‘narrow bandwidth’ given the attenuation or lack of embodied, nonverbal cues.¹ Now that so much of our mundane daily interaction is enacted and performed with and through digitally networked technologies—and dynamic sets or ensembles of multiple digital technologies simultaneously—

¹ Somewhat paradoxically, however, the roots of communication studies, including digital media studies, in information theory, cybernetics, linguistics, and semiotics, assume that all communication is *the same* in that it can be analyzed as the transmission of discrete units of information as signs. Hence, ‘nonverbal’ communication is studied as the ‘transmission’ and ‘exchange’ of discrete ‘signs’ analogous to ‘words’, which works for actual sign languages (then becoming the province of Linguistics rather than Communication), but has been of limited value more generally, despite popular fascination with ‘body language’, etc.

the analytical separation of digital interaction from physical interaction makes little sense and constitutes an important limitation not just on our understanding of mediated communication, but on our understanding of communication and interaction in general—with implications for how we understand cognition, conceptualization, and human being itself.

The investigation of digital and social media typically takes one of three dominant forms, which address three different, broad scales of interaction: 1) the investigation of systemic structural factors or networks, whether technological, economic, social, etc., or some combination of these; 2) ethnographic investigations of the users of technologies and their relationships in and through technology, typically in very specific media forms or platforms; or 3) the linguistic and/or semiotic analysis of discrete digital ‘messages’ in some form of content analysis, including ‘big data’ analyses of large corpora of messages and metadata. These three dominant forms are often combined or variably intermingled (most often at the boundaries or limits of different scales or orders), as in the use of content analysis in ethnographic investigation, and other approaches certainly exist. However, the investigation of digitally networked communications technologies (or internet communication technologies, ICTs) in the broad field of Communication Studies tends to be dominated by the two latter approaches (i.e., discrete ‘users’—even if in ‘communities’—and their discrete ‘messages’).

This large and diverse body of work continues to reveal patterns of technology use and illuminate the diverse and evolving usages to which ICTs and new technologies are put by various groups at specific historical moments. However, these dominant approaches are variably limited by 1) a continued (though typically implicit) reliance on an outdated ‘transmission’ model of communication, and 2) related basic conceptual assumptions about the character of ‘information’ rooted in early information theory and cybernetics, as well as in linguistic and

semiotic models of the ‘sign’ (as the basic unit of ‘transmitted’ ‘information’). Even ostensibly rhetorical (and therefore more humanistic, interpretive) approaches to the investigation of communication, since for example Edwin Black (1965), betray the influence of classical information theory and semiotics (in the positing of rhetoric as a transactional process of ‘transmission’) and cybernetics (in the concept of feedback): the ‘act of communication’ as a ‘rhetorical transaction’ is understood as a ‘system’ constituted by three constituent processes (strategies, situations, and effects—roughly analogous to the domains or orders of systems/networks, communicators/users, and messages/data) which, Black argues, “are intimately related and interact [such that] a scale of one will perforce involve the other two” (Black, 1965, p. 136).² The fundamental act and process of communication is thereby understood (i.e., widely assumed) to comprise systemic linear (if highly complex) interactions among discrete actors exchanging discrete signs as units of information comprising ‘messages’.

Most investigators (though not, unfortunately, most communication textbooks) now acknowledge the weaknesses of the ‘transmission’ model, and most will acknowledge that the sign—regardless of its form—is inherently polysemous and situationally dynamic. However, the semiotic ‘code’ model is, uncritically, assumed to account for the instability of the ‘sign’. This is true, for example, of theoretical orientations influenced by forms of social constructionism which argue that ‘reality’ is, in essence, what an individual’s culture tells her it is. When applied to the study of communication technology, the technological ‘codes’ from which digital technologies

² Similar and analogous distinctions can be found in other mid-20th century social scientific accounts of human interaction, as for example anthropologist Edward Hall’s (1959) identification of *sets*, *isolates*, and *patterns* in the study of culture, which also draws from information theory, cybernetics, and semiotics, as well as from both Gibsonian psychology and Marshall McLuhan’s theory of mediation (explicit in Hall, 1966). With the addition of the latter, Hall’s approach to the study of culture can be read as an early, analytical form of assemblage theory.

and their ‘messages’ are generated are often equated to or assumed to be analogous with semiotic ‘codes’ of social meaning, masking a completely disparate character and level of fixity in the unit of digital ‘information’ on the one hand and the unstable semiotic ‘sign’ on the other: if the socially constructed ‘sign’ is a discrete ‘unit of information’, and ‘reality’ is only what a determining culture (as a system of ‘signs’) says it is, then the very notion of (‘objective’) ‘information’ is destabilized. This incongruence is rarely obvious, and isn’t always much of a practical problem. It is, however, an unnecessary—and potentially critical—limitation that is most apparent in the application of linguistic models to digitally mediated communication in which ‘text’ is taken as ‘data’.

An entailment of the insistence on discretely bound and delimited units of analysis in the investigation of communication and interaction is the methodological insistence on, or even *need* for, a discrete agent, actor, or actant. In the study of ‘natural’ human, i.e. face to face, communication, the identity of the physically embodied actor is a given. In mediated communication the identity of the actor or agent is destabilized—a situation prefigured in 20th century literary theoretical discussions debating the status of ‘the author’, ‘the reader’, and various ‘voices’ in ‘the text’. In contemporary digitally mediated communication, similar questions are complicated by (among other things) the imbrication of multiple technologies and network-systems, as well as effective and affective functions of non-human, technological agents that mediate—and even perform—interpersonal interaction. The question of how a not-person (i.e., non-human agent) can perform ‘interpersonal’ social actions is more than semantic quibbling; it is symptomatic of the problem of what constitutes an ‘actor’, ‘agent’, (inter)‘actant’, or ‘communicator’—a particularly thorny problem at both the infra-human level of technological devices, platforms, algorithms, and interfaces, and at the ultra-human level of systems, networks,

and assemblages.³ Without a well-defined ‘actor’, the concept of ‘action’ itself is destabilized—a problem illustrated in recent attention to the theoretical distinction between, and pragmatic incongruences among, effects and affects (a domain of theoretical discussion that pits philosophy against psychology and highlights the tenuous relations among action, causation, and intentionality).

This dissertation attempts to address these issues first by configuring them as two, interrelated, general, theoretical and (ultimately) methodological problems in the study of communication broadly, and digitally mediated communication specifically. Chapters 1 and 2 formulate these problems as, respectively, (1) the assumption that the investigation of communication in any form can be based upon linguistic and semiotic assumptions, which follows from the assumption that language (as ‘text’) can be transparently and/or unproblematically investigated as discrete ‘data’; and (2) the problem of ‘context’ of communicational and rhetorical agency given (1) (i.e., the problem of the ‘text’). The invocation of rhetoric at this point is an invocation of intentionality, which points directly to questions of agency. If communication research comprises the investigation of interactional practices, the problem of discrete actors and agents, as well as the actions they perform, all constituted by discrete data interpreted as information, such investigation must account for how information is constituted and how such agents are constituted and invested with the capacity to act, as well as how researchers themselves—as observers, interpreters, and participants—are similarly constituted in, by, and with the production of shared knowledge. Chapter 2 offers an account of this problem with a theoretical reorientation from discrete units of information (discussed in Chapter 1) to dynamic hermeneutical and rhetorical spaces of meaning-making-through-

³ A different—but certainly related—discussion would include non-human animals and ecosystems to the former and latter sides of this continuum, respectively.

interaction by integrating contemporary information theory with contemporary rhetorical theory through a reassessment of and emphasis upon the fundamental concept and metaphor of *space*. Chapter 3 then addresses the problems as configured in Chapters 1 and 2 with an integration of contemporary information theory (Floridi) with sociological theory of interaction (Garfinkel) and social psychological theories of the self (Gergen, Shotter), followed by the explication of a novel theory of communication anchored in a theoretical concept of gesture as shared spacetime-making. Chapter 4 provides a rudimentary illustration of how the (meta)theoretical orientation offered in Chapter 3 may be applied with analyses of specific instances of mediated communication and interaction. Finally, a brief conclusion discusses some implications of the gesture theory of communication offered, acknowledges some of the perspectives that are not addressed herein (and why), and considers future directions for research and theoretical development.

But first, some preliminaries. As should by now be apparent, I am interested in understanding communication not as the *transmission* of discrete messages, nor as the *exchange* of information, but as *interaction*. Ursula Le Guin's metaphor of communication provides a colorful image that speaks to the difference:

In human conversation, in live, actual communication between or among human beings, everything "transmitted"—everything said—is shaped as it is spoken by actual or anticipated response.

Live, face-to-face human communication is intersubjective. [...] Intersubjectivity is mutual. It is a *continuous interchange* between two consciousnesses. Instead of an alternation of roles between box A and box B, between active subject and passive object, it is a *continuous intersubjectivity that goes both ways all the time*. [...]

My private model for intersubjectivity, or communication by speech, or conversation, is amoebas having sex. As you know, amoebas usually reproduce by just quietly going off in a corner and budding, dividing themselves into two amoebas; but sometimes conditions indicate that a little genetic swapping might improve the local crowd, and two of them get together, literally, and reach out to each other and meld their pseudopodia into a little tube or channel connecting them. [...] they literally give each

other inner bits of their bodies. They hang out for quite a while sending bits of themselves back and forth, mutually responding to each other.

This is very similar to how people unite themselves and give each other parts of themselves—inner parts, mental not bodily parts—when they talk and listen. [...]

Two amoebas having sex, or two people talking, form a community of two. People are also able to form communities of many, through sending and receiving bits of ourselves and others back and forth continually—through, in other words, talking and listening. Talking and listening are ultimately the same thing. (Le Guin, 2004, p. 187-189)

Le Guin's Bakhtinian-inflected metaphor doesn't abandon the idea of 'exchange', but her emphasis on 'continuous intersubjectivity' provides an important reorientation from the discrete character of 'messages' and 'communicators' to the mutually constitutive interactional (and mediational) processes in which communication happens and 'individuals' are constituted. She reminds us that 'individuals' (to reappropriate Edwin Black) 'are intimately related and interact', as much as are and do the scales of 'message' and 'messenger'—and this holds for mediated interpersonal interaction as it does for face-to-face conversation.

The idea that the world can be understood by dividing it into its discrete constituent parts (and the assumption that those 'parts' are both 'objective' and ontologically stable) can be traced back to ancient Greek thinkers such as Democritus and Lucretius, and to Plato's desire to understand and explain human experience by 'carving the world by its proper joints'—understanding and explaining being, for Plato, 'ultimately the same thing' in the same way that listening and talking are 'ultimately the same thing' for Le Guin. But today these assumptions are primarily derived from mechanistic models of the world developed in the Enlightenment—the birth of 'science'. There can be little argument that this general strategy has been very successful. Our digital age was made possible only by the drive to dissect—to *ana-lyse* is to 'cut apart'. But that which is taken apart no longer functions; that which is dissected—including the living processes of communication and interaction—dies. Plato understood the importance of the

mutually constitutive relation of the Thanatos of analysis and the Eros of synthesis. Understanding communication processes in a digital world, and the sociotechnical processes in which that world is enacted, requires a reevaluation of the relationship between analysis and synthesis, categorization and generalization, division and combination, form and process, which also entails a reevaluation of assumptions about the levels or scales or orders at which communication and interaction occur (e.g., ‘system’ and ‘individual’, or ‘pattern’ and ‘set’, or ‘network’ and ‘node’, etc.). This dissertation explores these themes and offers a (preliminary and surely incomplete) means to address them. While these themes relate to all processes of interaction, the present discussion is framed in terms of digitally mediated communication and interaction because it is in that space where the tensions among the ‘orders’, ‘levels’, or ‘scales’ of analysis are most apparent—and, consequently, where the problem of agency is arguably most apparent. Furthermore, in the developed world—and increasingly in other parts of the world as well—networks of digital interaction have come to play a vital role in mundane human activities, but our conventional models and understandings of communication—relying on taking things apart—are ill-equipped to understand the novel combinations and processes these systems of intersubjective interaction enact. Instead of using traditional analytical communication models based on (spoken) language and face-to-face interaction to understand mediated communication (assumed to be ‘different’), I offer an understanding of communication and interaction that incorporates digitally mediated interaction from the beginning—as most of our lives now do.

Finally, a quick note on the form of this argument and how to read it. This dissertation returns to the common roots of the study of language and communication to make an argument for relevance in the necessary and explicit reintegration of empirical description and rhetorical interpretation. Such an argument entails some important rhetorical concerns. Most importantly,

the form and the content of the argument must align and support one another or the entire project risks self-sabotage. Because I am presenting communication as space-making, attempting to force the complexity of the argument into a strictly linear, hierarchical, reductive, and analytical line of thought would be both self-contradictory and ultimately self-defeating. For that reason, terms and concepts precipitate and dissipate, emerge, submerge, and cycle through the argument, weaving a whole that, by the end, I hope, comes to make sense in its own terms. For the same reason, there are more citations and quotations in this dissertation than may be thought necessary, especially since they come from many different fields of study. This is not intended as a pretentious or misguided effort after comprehensiveness but as an illustration and enactment of the kind of space-making that communication is argued to be. The main idea might be articulated most simply and directly as: *information is always and necessarily rhetorical*. But that directness and simplicity is also, and therefore, deceptive. Explaining what exactly I mean by this, and why it's important, involves rearticulating, to some degree, both 'information' and 'rhetoric'. To that end, the first two chapters take things apart and clear the ground so that the third and fourth can put the pieces back together again—ultimately showing that the 'pieces' are far less important than their constitutive relations.

2. PROBLEMATIC POINTS—TEXT AS DATA, COMMUNICATION AS LANGUAGE

2.1 Cursory Tracings of Toasters, Texts, Transmissions, and Topoi

This predisposition to the wow factor in digital media studies—the novelty of the newest LOLcat meme or latest social networking service—makes it hard to shift the conversation away from specific bits of technology to the social complexities that offer anything but clear, universal answers to our questions about media’s historical impact on society. (Gray, 2012)

At the 2012 conference of the Association of Internet Researchers, Mary Gray, senior researcher at Microsoft’s Social Media Collective, decried what she had come to call ‘toaster studies’: the preoccupation of new and digital media researchers with ‘the next big/cool thing’ at the expense of the interactional and social processes that communication technologies affect and effect. This preoccupation with each succeeding, typically short-lived, shiny novelty can make media researchers as a group resemble the internet cats the digitally astute are so fond of. But this preoccupation is more than simply a directive inscribed in the label ‘*new media*’ studies. It is a symptom of the methodological assumptions of media and technology research that can be traced back to the roots of Communication Studies as a discipline (and beyond), in which subfields such as new and digital media studies are typically enfolded.

Fundamentally, the assumptions involved can be traced back to the roots of the scientific enterprise and its emphasis on discrete analysis: each ‘thing’ in the world is composed of its ‘parts’, hierarchically organized and empirically determinable and definable. Understanding the world is thereby assumed to involve empirically determining the world’s ‘things’ and ‘parts’ and the intricate relations among them. In the 20th century, assumptions about the discrete and empirically determinable character of the world (especially ‘the world’ as human experience) came under increasing attack from several different directions, including (quantum) physics,

complexity theory, and chaos theory, as well as phenomenology and the philosophy of science. The ensuing battles saw the drawing of lines dividing the ‘humanistic’ from the ‘empirical-scientific’, the interpretive from the descriptive, the qualitative from the quantitative, etc. Communication Studies, a hybrid field that was born early in the 20th century United States as a social-scientific reconfiguring of the humanistic study of language and practices of speech, has historically attempted to interweave the two general methodological mores, or at least provide a big enough umbrella to accommodate them both.

While, the humanistic validity of interpreted experience is rarely denied, the generalizability of empirical description provides, for many, an instrument both weightier and more finely honed, less subject to the vicissitudes of human biases because always grounded upon the ‘real’, the objectively observable, definable, and measurable. To investigate the discretely observable actions and interactions of actual people using actual technologies is also, frankly, both easier and faster. The pressures for academic ‘production’ (and the ‘realities’ related to the funding that it both requires and generates) rarely smile upon the longitudinal or the ethnographic, to say nothing of the speculative or the theoretically exploratory. Documenting the uses of the newest shiny social media app (even given the problem of access to the data) is often faster and simpler than a deep dive into interpretive depths or lengthy immersion in a sub-sub-culture that, in the end, will provide a description of that single, historically specific community, and likely little else. Similarly, empirical observation and quantification provide a comforting veneer of functional relationality by reducing all phenomena to discrete, measurable and (at least theoretically) relatable data points. In media studies, this has led to a profusion of empirically descriptive research on specific technologies that are all too often obsolete by the time the relatively slow processes of research and publication are completed. Such work is

undeniably valuable as description of human activity and sociotechnological phenomena, but in the end there is little more connecting these discrete phenomena than there is connecting various ethnographic descriptions of distinct, historically specific communities.

I have no interest in taking a side in this battle for the privileging of either the interpretive or the descriptive. Doing so would, in fact, entirely misplace the point. In contrast, I am interested in the shared methodological, epistemological, and ontological assumptions about what constitutes the ‘data’ of media and communication research (whether quantitative or qualitative), the ensuing ‘information’ that is interpreted, and how shared ‘knowledge’ of the world is thereby constituted and contested. Accepting the socially constructed (or synthetic) character of data, information, and knowledge does not necessitate denying their actuality, their effectivity, nor their affectivity. To begin to address this set of issues, this chapter provides some necessary background in an overview of the study of new and digital media interaction, followed by an examination of the historical roots of this field of investigation in linguistics, semiotics, information theory, and cybernetics. By confronting digital media research with its inherited and inherent analytical assumptions, I hope to make the review itself a subtle argument about the relations among digitally mediated communication, human interaction more broadly, and face to face embodied interaction specifically.

2.2 Digital Discourse: Data as Text, Text as Data

The arrival of “social media” at the turn of the millennium (or “web 2.0,” O’Reilly, 2007; or “participatory culture,” Jenkins et al, 2006; among a variety of other labels) only intensified an already widespread interest in the mediated interpersonal practices networked technologies afford. A wide variety of methodological perspectives have been applied to a similarly wide

range of specific investigational foci (i.e., ‘toasters’), including social networks broadly (e.g., boyd & Ellison, 2007; Barton & Papen, 2010; Chaka, 2010; Walther & Jang, 2012; Westaby, Pfaff, & Redding, 2014), Facebook (e.g., Wagner, & Stempfhuber, 2013; Fox, Osbourn, & Warber, 2014; Sosik & Bazarova, 2014) and Twitter (e.g., Crawford, 2009; boyd, Golder, & Lotan, 2010; Chang, 2010; Schandorf, 2012; S. Sharma, 2013; Scott, 2015; Zappavigna, 2015) specifically, 3D virtual worlds (e.g., Newon, 2013; Pulos, 2013), blogs (e.g., Lindemann, 2005; Rettberg, 2008; Peterson, 2011), email (e.g., Rains & Young, 2006; Rains, Tumlin, & Knapp, 2009), chat technologies (e.g., Latzko-Toth, 2010; Kumpulainen & Mikkola, 2014), instant messaging (e.g., C. Lee, 2007a, 2007b; Neo & Skoric, 2009), and a sizable body of work on relational practices and implications of mobile phones, mobile media, and SMS (e.g., Oksman & Turtiainen, 2004; Ling & Pederson, 2005; Ling, 2008; Harper, Palen, & Taylor; Schwarz, 2011; Baron, 2013; S. Park, 2013; Hall, Baym, & Miltner, 2014), as well as systems for categorizing and analytically organizing these technologies and their technological and interactional features (e.g., Herring, 2007; El Ouiridi et al, 2014). After a decade of social media use and research, several collections dedicated to the investigation of digital discourse and mediated interpersonal communication are now available spanning the range of these technologies and discursive phenomena (e.g., Konjin et al, 2008; Rowe & Wyss, 2009; Thurlow & Mroczek, 2011; Wright & Webb, 2013; Tannen & Trestor, 2013). However, there are rich precedents for the study of mediated interpersonal communication, including Gumpert & Cathcart’s (1986, first edition 1974) *Inter/Media*, which argues that the traditional division of communication studies into interpersonal, group, public, and mass communication is an inadequate approximation of the realities of media and mediation in even a pre-digital world dominated by broadcast media. Rogers’ (1986) *Communication Technology: The New Media* describes computer-mediated

communication technologies as bridging the divide between interpersonal and mass communication with “machine-assisted interpersonal communication” (see also Williams & Rice, 1983). Horowitz & Samuels (1986), among many others, speculated early on about the implications of computer-mediated interpersonal communication for wide-scale linguistic and social change. Subsequently, the 21st century explosion and normalization of the technological mediation of interpersonal relationships has drawn a matching expansion of academic attention to the related social processes. Wright & Webb (2011, p. ix) note that between 2006 and 2008, nearly 38% of the manuscripts submitted to the *Journal of Computer-Mediated Communication* had an interpersonal focus, and attention to interpersonal computer-mediated communication has generally increased across the communication field more broadly (according to van Ochs & Coursaris (2014), academic publications dedicated to ‘social media’ grew by 250% between 2004 and 2011).

The continually increasing variety of social and interpersonal media technologies now available, and the fact that such technologies are often used in concurrent multiplicities or ensembles, has led to a growing interest in comparisons of interpersonal and interactional practices across or between and among different modalities and/or technologies, e.g. digital text (e.g., email, chat, instant messaging, or some combination of these) versus face-to-face interaction (e.g., Quan-Haase, Wellman, Witte, & Hampton, 2002; Baym, Zhang, & Lin 2004; Derks, 2007; Condon & Čech, 2010; Silva, 2010; Meredith, & Stokoe, 2013; Siampou, Komis, & Tselios, 2014; Shalom et al, 2015) or written correspondence (Elspaß, 2002); digital text interaction versus phone calls (e.g., Ramirez et al, 2008; Walther, Deandra, & Tong, 2010; Holtgraves & Paul, 2013; Gonzales, 2014); or cross-modal technology comparisons, such as email versus chat (e.g., Lee, 2007c), voicemail (e.g., Duthler, 2006; Watts, 2007), or SMS and

paper letters (e.g., Oskman & Turtianen, 2004; Hölfich & Gebhardt, 2005), instant messaging versus chat (e.g., Lee, 2007c; Maness, 2008), or texting versus formal writing (e.g., Grace, Kemp, Martin, & Parrila, 2013). Some such studies have looked specifically at comparative interactional phenomena, such as Jones, Schieffelin, & Smith's (2011) investigation of teens' gossip on IM about other teens' Facebook activity and the relationships between the two modes, and Jones & Sheffelin's (2009) investigation of the relationships among text messaging, YouTube comments, and television commercials. Others have offered important historicizations of new media, such as Wyss's (2008) comparison of online flirting, in the form of emails and text messages, to love letters, in the form of letters, postcards, and telegrams. Similarly, Humphreys, Gill, Krishnamurthy, & Newbury (2013) compare Twitter to personal diary forms of the 18th and 19th century (in a manner resonant with earlier genre analyses of blogs, see, e.g., Miller & Shepherd, 2004; Herring, Scheidt, Wright, & Bonus, 2005; Rettberg, 2008; Lehti, 2011). Occasionally such studies uncover interesting interactional phenomena, such as that people are more likely to lie using email compared with writing on paper, regardless of expectation of future interaction (Naquin, Kurtzberg, & Belkin, 2010). The dialectically opposing response to these media, mode, and genre comparisons is categorical compression, such as Jucker & Dürscheid's (2012) "keyboard-to-screen" communication, which compresses all forms of typed electronic communication into a single categorical entity that washes out any platform- or interface-specific effects or influences. Regardless, the majority of this sociolinguistic investigation of digital media interaction usually follows the typically straightforward statistical comparisons of usage and demographic variation, or forms of "coding and counting" (Herring, 2004b; see for example, Siebenhaar's, 2008 review of quantitative

approaches to linguistic variation in IRC, as well as Herring's, 2008 and 2010b, general overviews of internet sociolinguistics).

The sociolinguistically oriented investigation of digital discourse and interaction is extensive. Sociolinguistic investigative focus on the use of specific technologies includes, for example, investigations of interactional structures in email (e.g., Waldvogel, 2007; Cho, 2010; Herring, 2010a; Gruber, 2013; Lewin-Jones, 2014), conversational turn-taking organization in and structural dynamics of chat (e.g., Goutsos, 2005; Markman, 2005 & 2010; Beißwenger, 2008; Holmer, 2008; Anderson, Beard, & Walther, 2010; Silva, 2010; Simpson, 2013), linguistic and cultural practice variation in instant messaging (e.g., Baron, 2004, 2010b; Quan-Haase, 2009; Squires, 2012) and SMS (e.g., Ling 2005; Hutchby & Tanna, 2008; Sotillo, 2010) or both (e.g., Ling & Baron, 2007, Crystal, 2009), and the conversational structure of mobile phone interaction, both in terms of linguistic and discursive organization of the conversations themselves (e.g., Arminen, 2005; Laursen, 2012; Laursen & Szymanski, 2013) and the pragmatic organization of phone use when others are physically co-present (e.g., DiDomenico & Boase, 2013). Beiswanger (2013) provides a recent overview of micro-linguistic investigations of CMC in both the English- and German-language literature.

Hentschel (2010) is among those arguing that computer-mediated communication provides an ideal perspective from which to observe broad and evolving changes in language structure and function. However, such functional approaches tend to be highly reductive, as in Park's (2007) reduction of language function to 1) the transactional or information-exchange and 2) the interpersonal or interactional. Investigation in this vein includes the elucidation of specific linguistic markers of, for example, gender (e.g., Rafi, 2010), social status (e.g., Rowe, 2010), self-disclosure (e.g., Houghton, 2010), empathy (e.g., Pfeil & Zaphiris, 2007), authentication

(e.g., Gill, 2013), and repair (e.g., Baker Jacobs & Garcia, 2013), as well as more diffuse phenomena, such as conversational topic boundary crossings in task-oriented interaction (Kumpulainen & Mikkola, 2014), the structure and function of compliments in social network postings (e.g., Maiz-Arevalo & Garcia-Gomez, 2013) and bilingual linguistic identity performance online (e.g., C. Lee, 2011). Various sociolinguistic and interactional sociolinguistic methodological perspectives have been applied to digital interaction, including, for example, politeness theory and face (e.g., Papcharissi, 2004; Nishimura, 2008; Kaul & Kulkarni, 2010; Locher, 2010; Morand, 2010; Lorenzo-Dus, Blitvich, & Bou-Franch, 2011; Danet, 2013; Hössjer, 2013; Chen & Abedin, 2014), as well as combinations such as interactional sociolinguistics with network analysis (e.g., Bergs, 2006). In addition, several scholars have proffered guides to such sociolinguistic research, e.g., Georgakopoulou (2006) on interactional sociolinguistic methods in digital discourse; Androutsopoulos (2008) and Coleman (2010) and Hines (2015) on digital ethnography; Androutsopoulos & Beißwenger (2008) and Jones, Chik, & Hafner (2015) on digital discourse analysis; and Stommel (2008) on digital conversation analysis, as well as general discussions of methodological issues in such research (e.g., Markham & Baym, 2009; Jucker & Dürscheid, 2012; Bolander & Locher, 2014).

Given that digital communication is by definition *encoded*, the fact that interaction within such media is assumed to be constituted by the transmission and reception of discrete, quantifiable messages is plainly banal. The assumption that new and digital media communication is composed of the exchange of discrete verbal messages has been a guiding principle of their investigation from inception (whenever that is argued to be). Naturally and therefore, the investigation of new media use and interaction has often aimed at the elucidation of “how people adapt semiotics as they move from one set of symbol systems to another, from

speech to text” (Walther, 2004, p. 386). The study of contemporary new media (post-mass-media, or computer-mediated communication, or electronic/digital discourse⁴) began in the 1970s with studies of the impact of networked computer messaging systems (such as the introduction of computer conferencing systems and email) on organizational communication—not surprising given that large organizations were the first places such systems became widely available. Research on the impact of computer-mediated communication in organizations continued to develop well into the 1990s,⁵ and is not uncommon in business and organizational communication research even today, though usually in more sophisticated forms, often focusing on effective affective communication (see e.g., Reinke & Chamorro-Premuzic, 2014; Skovholt, Grønning, & Kankaanranta, 2014).

The first major studies of mediated group communication (Vallee, Johansen, Lipinski & Miller, 1974; Vallee & Johanson, 1974; Vallee, Johansen, Lipinski, Spangler & Wilson, 1975; Vallee, Johansen, Lipinski, Spangler & Wilson, 1978), conducted on ARPANET’s FORUM conferencing system, argued that “One of the most important concerns about FORUM [...] is the loss of those nonlinguistic communications which accompany face-to-face meetings” (Vallee, Johansen, Lipinski & Miller, 1974, p.79, *op cite* Asteroff 1987, p.73). This lack of conventional pragmatic markers and paralinguistic features in early computer-mediated communication systems limited to text message exchange was the central focus of the investigation into the functionality and effective application of these tools. Concurrently, Short, Williams, & Christie (1976) developed their *social presence theory*, which, though specifically addressing audio-

⁴ Or “electronically mediated communication,” “digitally mediated communication,” “internet-based communication,” “internet-mediated communication,” etc. For a discussion of these and other competing terms and terminologies, see Crystal (2011) and Jucker & Dürscheid (2012).

⁵ Hiltz & Turoff (1993) provide a valuable selective bibliography of early research on computer-mediated communication from 1978 to 1992.

visual conferencing systems, was later widely applied to networked computer communication systems. Social presence theory argues that the fewer the channels or codes available within a communication medium, the less attention will be paid by the user to the presence of other participants. The less social presence available within a given communication medium, the more impersonal messages thus transmitted are said to become. Social presence, therefore, is conceived as a differential property of communication media, which differ in their “capacity to transmit information about facial expression, direction of looking, posture, dress and nonverbal, vocal cues. [Computer-mediated communication], with its paucity of nonverbal elements and backchanneling cues, is said to be extremely low in social presence in comparison to [face-to-face] communication” (Walther 1992).

Hiltz & Turroff (1978) initiated an entire field of research dedicated to applying this perspective to computer-mediated communication in organizational settings (dubbed ‘cues-reduced’ models by Culnan & Markus, 1987; see for example Kiesler, Siegel, & McGuire, 1984; Kiesler, Zubrow, Moses, & Geller, 1985; Kiesler, 1986; Sproull & Kiesler, 1986), typically concluding that the lack of paralinguistic social cues in text-based interaction disrupts conventional hierarchies and leads to problematic (anti-)social behavior. As a rule, such investigation is formulated in terms of effective message transmission and reception (i.e., ‘communication and control’) by, for example, making an explicit connection between the (discrete, quantifiable) number of available social cues (understood as additive ‘bandwidth’ in the form of voice, kinesics, and proxemics which supplement the ‘real content’ of verbal messages) and the degree of social presence. A reduction in social presence equates to “a reduction in interpersonal warmth and affection that communicators enact and experience with one another” (Walther, Slovacek, & Tidwell, 2001, p. 107), in a manner analogous to uncertainty

reduction theory's supposition that "more information leads to greater personal regard" (*op cite*, Storck & Sproull, 1995)—a problematic assumption, at best.

Testing social presence theory and 'cues-reduced' findings, researchers began to address the adaptations of computer-mediated communication 'users' to the text-only interaction afforded by computer messaging systems (an early example is Hiltz, Johnson, & Agle, 1978). Some (e.g., Spitzer, 1986; Steinfield, 1986) argued that new forms of communication can allow for the development of new forms of hierarchy: better communicators rise to the top, while text-adapted paralinguistic cues (e.g., capitalization, punctuation, use of space) can mitigate challenges to effective communication. In contrast, Selfe & Meyer (1991), outside of the business context, found that conventional social hierarchies were largely immune to 'reduced cues' effects: men and high-profile community members continued to dominate group communication, even in the context of an anonymous or pseudonymous text-limited online conference system for English composition teachers for whom concerns about social hierarchies and power relations are highly salient. Such work often draws from, supports, or is otherwise framed in terms of "media/information richness theory" (Daft & Lengel, 1984, 1986), which, like social presence theory, examines the relationship between the technological capabilities of a communication medium and its interactional possibilities and implications—a perspective that explicitly defines a given medium in terms of its information-carrying capacity.⁶ Many of these findings were later found to be heavily context-dependent (see Foulger, 1990; Walther 1992, 1993, 1996; and Walther & Parks, 2002), particularly in terms of the instrumental emphasis of communication in organizational settings (as opposed to social or phatic emphases—"a relatively

⁶ Models assuming the quantifiability of interactional and affective influences are not unheard of even today, as seen in High, Oeldorf-Hirsch, & Bellur's (2014) model of *emotional bandwidth* in the context of Facebook interaction.

narrow and deterministic perspective [...] predefined by overarching rationalist concerns for efficiency and productivity,” according to Lea, 1991, p. 153-154), and to fail to account for temporal and chronemic differences inherent to mediated communication in comparison with face-to-face interaction (see Walther & Burgoon, 1992; Walther, Anderson & Park, 1994; and Walther & Tidwell, 1995).

The discovery that social, pragmatic, and paralinguistic cues were far more than “interpersonal noise” efficiently “filtered out” of text-only communication (Murrell, 1983; *op cite* Lea, 1991) was an important step in understanding mediated interaction, but the ‘cues-reduced’ models still underestimated the inherent possibilities for adapting text-only media to interaction. Among the earliest to apply explicitly sociolinguistic (and therefore broadly pragmatic) assumptions to computer-mediated communication, Kochen (1978) argued that “the form of linguistic communication used in computerized conferencing may be neither conversational speech nor formal writing, but a new linguistic entity with its own vocabulary, syntax, and pragmatics” (p 23, *op cite* Hiemstra 1982). Baron (1984) and Crystal (2001) have subsequently discussed online language as a novel linguistic register (see also, Garrison et al, 2011). Hiemstra (1982) was among the first to apply interactional and sociolinguistic approaches, such as Goffman’s notion of *facework* and Brown & Levinson’s politeness theory, to computer-mediated interaction, specifically in the form of text-based computer conferencing, as well as (telephone) conference calls, and video-conferencing. Ronald Rice applied Marshall McLuhan’s ideas to the study of and speculation about computer-mediated communication, with particular emphasis on socio-emotional communication and other interactional aspects of mediated conversation as compared with face-to-face interaction (Rice, 1984; Rice & Case, 1983; Rice & Love, 1987). Hesse, Werner, & Altman (1988) drew from transactional theory to apply a holistic (as opposed

to an analytical) look at the mediated interactional event, incorporating the physical and social context, temporal elements, and the psychological factors of the participants in both dyadic and group communication. What all of these early investigators share is an interest in the ways in which people using text messages for interpersonal interaction were able to adapt—or not—to the unavailability of embodied, nonverbal, paralinguistic, and metacommunicative cues, a pragmatic adaptability with wide social implications. These and others (e.g., Finholt & Sproull, 1990) found that differential purposes and goal orientations of communicators in different interactional contexts led (unsurprisingly) to the evolution of widely disparate interactional norms of mediated interaction.

John Carey (1980) is typically credited as the first investigator to report specifically on the “paralanguage” of computer-mediated communication, or the accessibility of and adaptation to extralinguistic cues (potentially) available in typically text-only interaction (though Hiltz & Turroff, 1978, had commented on many of the textual phenomena Carey addresses). Drawing on Trager’s (1964/1958) work on “paralanguage” and Crystal’s (1969) work on prosody to look at textual features and elements that “mimic or contain elements of oral communication,” Carey investigated communication on two text-based conferencing systems as a Goffmanian frame analysis (see Goffman, 1974). Carey identified textual adaptations, which are commonplace today, such as “vocalic,” phonetic, or unconventional spelling; “lexical surrogates,” or interjections; “spatial arrays,” or the orthographic manipulation of screen space for emphasis or temporal effect; the use of “grammatical markers” for expressivity; and “minus features,” which include the “absence” or manipulation of proper spelling and grammar for tonal effects. In concluding, Carey presciently comments that he seems to be witnessing the development of conversational conventions for digitally networked textual media. While many of the features

Carey discusses are commonly found in poetry and literature, one seemingly novel element of such conventions was the development and spread of emoticons. The origin of these iconic, graphical forms generated from typographic symbols, have been variously credited to different electronic bulletin board users in the 1970s, but Western Union's "92 Code" of 1859 had "used



Figure 1. Typographical art and the proto-"emoticon." (*Puck* magazine, no. 212, p.65, March 30, 1881. Reprinted in Christianson, 2012)

numerous numerical symbols as substitutes of various common phrases, such as the use of 88 to denote 'love and kisses'" (Christianson, 2012, p. 159), and explicitly iconic forms typographic

representation have been found as “typographic art” at least as early as the 1880s. ...nothing new under the sun...

Following Carey’s initial presentation, a number of researchers began investigating these and other textual phenomena in terms of “paralanguage” or pragmatics, or in relation to nonverbal communication or, more generally, in the application of “oral” forms to “literate” textual communication, often by comparing face-to-face interaction with forms of technologically mediated communication.

2.2.1 Pragmatic Markers, Social Cues, & Emoticons

Chesebro (1985) pointed to the lack of cues in text-only communication and the ensuing need for knowledge of “verbal codes” such as “asides,” “parenthetical comments,” and “oral additions,” as well as practical (embodied) requirements such as good typing skills, in order to communicate effectively in these media. Chesebro (1985) and Chesebro & Bonsall (1989) examined the interpersonal and social effects of wide-scale computer-mediated communication systems, giving special attention to pragmatic concerns including the verbal coding of such pragmatic markers or ‘paralinguistic cues’. Fulk & Van Tassel (1985) described the developing “netiquette” and other discursive norms (e.g., “smileys” or emoticons), which Spitzer (1986) and Rivera, Cooke, & Bauhs (1996) similarly argued could mitigate the challenges of the lack of nonverbal interactional processes inherent in face-to-face interaction (see also Bielman, Putney, & Strudler, 2003). Blake (1999) provides one of a number of handy guides to email pragmatics for business communication, which covers the emotional connotations of grammar and punctuation, fonts, and text formatting, as well as emoticons and common online abbreviations (see also Mackiewicz, 2003).

Hentschel's (1998) overview of the pragmatics and common paralinguistic forms of IRC (internet relay chat), includes conversational turn-taking behaviors, the verbal encoding of nonverbal behavior, and even "singing." This and Bays's (1998) frame analysis of IRC added to prior research in other electronic-text media, such as Wilkins's (1991) description of interaction in zero-history email groups, in which "conversational topic was maintained through lexical repetition, synonyms, and shared cultural knowledge" (p. 64). Wilkins relates textual paralinguistic features (e.g., "emotes" or verbal markers of typically embodied actions, such as "<hugs>") to phatic communication and identifies oral and graphic features, including disfluencies (e.g., hesitations, false starts, and afterthoughts), innovative uses of language, graphic displays (e.g., ASCII art, see Danet, 2001), and describes various aspects of interactive language use, including validation and (both ego- and hearer-) involvement, and, to a lesser degree, expressions of interest such as exaggeration, exclamation, expressive vocabulary, and vivid particles, all of which, she argues, contribute to affective identification and community-building over time (see also Baym, 2000). Marvin (1995) similarly examines the expressive resources available in the "virtual conversation" of MOOs,⁷ and in electronic text-communication, more generally. Referring to Elmer-Dewitt's (1994) characterization of online, text-based interaction as "written speech," Marvin discusses the uses of emoticons, emotes, interjections, expressive punctuation, jargon, temporal dynamics, and narrative enactment/performance (i.e., "emotes" and "spoofs"), as well as lurking and spamming behavior, emphasizing the ludic element in online interaction enacted in and around conversation.

In one of the earliest investigations of non-English digital discourse, Livia (1999) describes the technological characteristics of the French Minitel system, including a small

⁷ A MOO is a text-based virtual reality system, a version of a MUD (multi-user domain): MUD, object-oriented. See Bartle (2003).

screen, quick time-outs following inactivity, pseudonymity, no way to retrieve previous messages, and pricing by minute. Pragmatically, these formal/technical features contribute to an overall dialogic character to Minitel interaction and favor “brevity, ensure interlocutors get to the point, answer promptly, and employ a highly abbreviated, coded style, featuring a large number of initials and shorthand references” (p. 426), characteristics similar to those found in English-language chatrooms, BBSs (electronic bulletin board systems), and other messaging systems. Comparing Minitel “messengeries” to neighborhoods, Livia argues that conversations on Minitel might have more in common with graffiti, and usernames with vanity license plates.

Condon & Čech (1996) investigated “synchronous machine-mediated interaction” (“including use of telephone devices for the deaf”) in comparison with face-to-face conversation in the context of task-oriented, decision-making communication.⁸ They found the two communication modalities to be broadly consistent, though mediated interactions were somewhat more efficient if only because technical constraints comparatively limited interaction, i.e., face-to-face dyads relied more upon discourse markers such as “ok” and “so...” However, when discourse and orientation (or indexical) markers were combined, the two modes were nearly identical: computer-mediated communicators simply used orientation markers to absorb the technical constraints of the textual medium.

While all of this research emphasizes the lack or attenuation of nonverbal pragmatic markers, an associated characteristic of electronic discourse is grammatical reduction relative to

⁸ A very interesting, though rarely acknowledged, predecessor to the bulk of the investigation of the relationship between typically “oral” (i.e., face-to-face) and “written” (i.e., text-based, mediated) forms of interpersonal interaction can be found in Nash & Nash’s (1982) investigation of the linguistic and pragmatic characteristics of teletype exchanges among the hearing impaired (see also, investigations by Bakken, 2005; Barak & Sadovsky, 2008; and Okuyama, 2013 of text messaging and internet use among deaf teens).

more formal written communication. Comparing the grammatical form of synchronous electronic text messages to the common written register of “note-taking,” the particular features of which function as general responses to “constraints on time, memory, and general effort” (30), Ferrara, Brunner, & Whittemore (1991) describe four characteristics the two forms share: 1) omission of unstressed pronouns, 2) omission of articles, 3) omission of finite forms of the copula, and 4) shortening of words with abbreviations and symbols. Appropriate to their “note-taking” frame, the authors identify paralinguistic forms related to correction, editing, repair, and compensation for lack of embodied cues, such as parentheses, dashes, ellipses. A decade and a half later, Hård af Segerstad (2005a, see also 2005b), in a review of the literature describing the linguistic characteristics of SMS, lists several forms of grammatical reduction, including deletion of subject, deletion of articles, deletion of pronouns (especially subject pronouns), contractions, g-clippings, acronyms, letter/number homophones, oralized spellings and accent stylizations, omission of punctuation and word spacing, reduction of flectional endings, misspelling and typos, substitution of longer native-language words with shorter foreign-language words, and, of course, emoticons.

Perhaps the first monograph-length treatment of the paralanguage of computer-mediated communication is provided by Asteroff (1987). Comparing conventional written (i.e. paper-based) and electronic paralinguistic forms, and building explicitly on Carey’s and other’s previous work in nonverbal paralinguistics, Asteroff (1987) also hints at cybernetic influences through the concept of feedback as metacommunication: “Because paralanguage provides information over and above the literal meaning, it is computer-mediated communication’s internal and principle form of redundancy, or the means by which additional signs or rules

prevent mistakes in the reception of the message” (p. 137). She formally defines ‘electronic paralanguage’ as

features of written language which are used outside of formal grammar and syntax, and other features related to but not part of written language, which through varieties of visual and interpretive contrast provide additional, enhanced, redundant or new meanings to the message (Asteroﬀ, 1987, p. 139).

She points out that not every medium or technology can represent or accommodate every potential written paralinguistic feature or symbol; for example, most BBSs couldn’t accommodate italics. However, “Some paralinguistic features, such as lexical surrogates (word substitutes) and vocal segregates (sound substitutes, i.e., interjections) are independent of medium and recording technique. They are available in all, but are more prominent in some [text-based media] than in others” (p. 113-114). Paralinguistic forms and expressions, she points out, are inherently contextually dependent and will be more or less acceptable in some situations than others, for example, in personal versus business letters.

Building on Carey’s categories, Asteroﬀ categorizes electronic paralanguage, in an increasing level of abstraction from conventional written language, into three forms: 1) *alphabetic* (vocal spellings, lexical surrogates, and vocal segregates), 2) *symbolic* (manipulation of grammatical markers and special symbols), and 3) *spatial* (spatial arrays, text form, and text movement). She oﬀers five characteristics of both paper-based and electronic paralanguage: 1) paralanguage is part of a communication system which is delayed and recorded; 2) it is visible; 3) occurrences of paralinguistic features can be easily identiﬁed; 4) when recorded on paper, paralanguage is permanent and easily retrieved; and 5) when recorded in electronic media paralanguage can either be permanent or temporary and retrieval aspects vary widely (p. 111). Vocal spellings, Asteroﬀ argues, are often used simply as time-saving typing devices, as when

using single letters in the place of words (e.g., “c u soon”). In the use of vocal segregates, she notes an intertextual influence: many such expressions she finds similar to those found in comic books, e.g., “wham” and “arghh,” and serve a similar function of semantic compression⁹ – “Like some spatial arrays, they may achieve a very compact informational function” (p. 123). She adds to Carey’s *manipulation of grammatical markers*, the category of *manipulation of special symbols*, which “includes any symbol on the computer keyboard used to mark off various parts of a message by surrounding certain words or phrases” and “used outside of the their traditional or formal meaning” (p. 123). “Like grammatical markers, special symbols indicate degrees of stress, show pause, signal a shift in tone or changes of subject” (p. 123). She limits spatial arrays to ASCII art and emoticons. For the latter she provides a contemporary definition from an anonymous BBS post: “emoticon: n. a figure created with the symbols on a keyboard that is read with the head tilted to the left. Used to convey the spirit in which a line of text was typed” (p. 126) (She also provides a 6-page Appendix of “common” emoticons, though in bare quantitative terms, emoticons have consistently been found to be used sparingly, if at all, by most users of text-based computer-mediated communication). Asteroff’s new category of *text forms* is based on Carey’s *minus features* but more widely encompasses the orthographic and typographic capabilities of writing on screen. Her second additional category, *text movement*, is a special feature available in only certain systems, and not widely available today (though animated gifs

⁹ Sugimoto and Levin (2000) make a similar claim in the Japanese context relative to the popularity and influence of *manga* (graphic novels tremendously popular Japan) on digital paralinguistic forms, including the development of Japanese emoticons (which are unrelated to those common in the West). Itou, Motojin, & Munemori (2013) have gone as far as proposing a chat program based on manga conventions of nonverbal expression—which is related to the discussion of emoji below. The intertextual influence of popular media on language is, of course, not limited to comic books. Jones & Schieffelin (2009) investigate the reciprocal influence of text messaging and television commercials in YouTube comments from the perspective of Jakobson’s poetic and metalinguistic functions.

and animated emojis might be considered imagistic descendants). She also notes that some computer-mediated communication systems of the time allowed writers to insert the sound of a bell (or, more likely, beep) into text.

The next significant investigation of the pragmatics and paralinguistics of online language is Blackman's (1990) ethnography focusing on the developing etiquette and norms of the computer-using subculture on publically available (in this case, CompuServe) BBSs in the late 1980s. Blackman emphasizes "how new users of electronic communication use and get socialized to public electronic message systems" (p. 41), and therefore "how language and paralinguistics were invented, codified, employed and transmitted" (p. 54) in these emerging media. In addition to the examination of basic pragmatic characteristics of discussion board interactions, Blackman identifies seven types of "nonverbal surrogates" divided into 22 distinct subcategories: *Kinesic surrogates*: kinesic descriptors (e.g., <wink>, <grin>), kinesic pictographs (e.g., typical face-representation emoticons), and self-pointing to a username (e.g., "[username] <----->"); *Vocalic surrogates*: emphasis indicators (multiple punctuation, all-caps, and asterisk bracketing), duration and rate indicators (letter repetition, spaces between words, run-together words), pause indicators (ellipses, in-line blank spaces), and vocalizations (vocal characterizers, e.g. "Ahhh," "(cough)," "hmmmmm"; vocal segregates, e.g. "like," "you know," "ummm," "er"; and interjections); *Haptic surrogates* (touch descriptors, e.g. "hugs," and haptic pictographs, e.g. "xxxxx" for 'kisses'); *Physical appearance surrogates* (appearance descriptors, sometimes with indicated sound effects); *Artifact surrogates* (object displays, e.g. "sucking down coronas"); *Action surrogates* (action descriptors and sound effects); and *Conventional symbols*. These features, Blackman argues, serve two distinct metacommunicative functions: 1) they provide contextualizing and social cues, "a general guide to new users," in specific online

environments; and 2) they provide a symbolic substitution for the embodied nonverbal cues missing in text-only interaction. Blackman devotes a separate chapter to “pictographs,” or emoticons, for which he identifies two primary functions of their own, aimed at supplementing the lack of “multichannel sensory input that characterizes face-to-face communication” (p. 200): 1) “to make a statement about communicative intent,” and 2) to convey a symbolic message about “the wit and creativity of the participants and the possibilities of the medium. Pictographs provide an opportunity for balancing the cold technology with playful and warm human self expression” (p. 199). “It seems a smile, so wonderful and complex off-line,” Blackman concludes, “has multiple meanings even on-line” (p. 201).

In an in-depth and influential analysis of IRC relating the paralinguistic features of computer-mediated interaction to the pragmatics of face-to-face interaction, Werry (1996) describes some of the compensating conventions that

in face-to-face encounters would typically be negotiated by paralinguistic cues such as intonation, pauses, gesture and gaze [...] Thus for example, it has become entirely conventional for speakers to indicate the intended addressee by putting that person's name at the start of an utterance. [...] Such a high degree of addressivity is imperative on IRC, since the addressee's attention must be recaptured anew with each utterance. (Werry, 1996, p. 52).

Werry identifies important constraints (spatial, temporal, social and, therefore, rhetorical) of the technology: screen [or window] size, typing speed, response times, competition for attention, [IRC] channel [i.e., “chatroom”] population, and pace, all of which push interactions toward brevity (e.g., short turns, abbreviation, acronyms, deletion of pronominal reference, and formulaic responses). He describes a “complex set of orthographic strategies designed to compensate for the lack of intonation and paralinguistic cues that interactive written discourse imposes on its users [...which...] functions to create the effects of voice, gesture and tone

through the creative use of capitalization, spelling and punctuation” (p. 56-57): reduplicated letters, punctuation to indicate tempo, capitalization for emphasis, colloquial verbalizations and non-standard spellings (including the mimicking of regional accents), and “hybrid, heteroglossic forms that incorporate all manner of communicative styles [...], bricolage discursive fragments drawn from songs, tv characters, and a variety of social speech types” and “an almost manic tendency to produce auditory and visual effects in writing, a straining to make the words simulate speech” (p. 58). In addition to this indication of the intertextuality of digital discourse, Werry provides an important historicizing of computer-mediated communication, noting the resemblance of many of its pragmatic conventions to

the efforts various writers in the eighteenth century made to produce written language that captured the ‘music’ of speech, its distinctive tones, timbres and patterns of intonation [...] Interlocutors frequently construct graphic simulations of sounds such as laughter, exclamations, snarls, barks, singing, the sound of racing cars, and various other noises. (Werry, 1996, p. 58).

Werry describes such emotes as “actions and gestures” (p. 59), “feats of creative ventriloquism that [construct] a physical context (often surprisingly sophisticated) for communicative acts” (p. 60):

a set of codes whereby words and visual images are used to symbolize gestural qualities of face-to-face communication. The symbolic enactment of physical actions is a particularly distinctive and fascinating discursive property of this genre. Hugs, kisses, offers of coffee, yawns, shaking hands, and the popping of champagne are all enacted symbolically. This convention for doing this [...] resembles stage directions” (Werry, 1996, p. 59-60; see also, Hentschel, 1998).

Coming to similar conclusions, Utz (2000) examines the microprocesses of relationship development in text-based virtual communities (‘multi-user domains’ or MUDs), specifically

investigating “devices with which to overcome the lack of nonverbal cues” (e.g., “feelings”/ “social verbs,” “smileys,” and “emotes”/“posings”). Utz found that expression of otherwise nonverbal paralanguage tended to increase with user experience, and correlated with the reported development of friendships (i.e., more emoticons were used in messages to friends, and, correlatively, the use of more paralanguage led to the development of more friendships). However, the use of such pragmatic markers depended to some degree upon the attitude of the individual user: “Individuals who believe it is possible to build up relationships in virtual worlds learn how to use smileys, feelings, and emotes and thus make friends in MUDs, but those who are more skeptical of CMC do not.”

In her extended ethnography of an IBM project manager utilizing several forms of task-oriented mediated interaction, sometimes concurrently, Murray (1991a) focused on the effect of choice of media or channel (face-to-face, telephone, email, or messaging) and their differential pragmatic affordances on communication and interaction. Combining linguistic, discourse analytic, and conversation analytic text-based, as well as speech act theory assumptions, Murray defines ‘conversation’ as “any interactive, cooperative exchange through language between two or more human beings” (p. 83), emphasizing the multimodal character of conversational interaction, especially when a number of options for interaction are concurrently available. Distinguishing between “conversation for action” and “conversation for social maintenance,” Murray argues that, “[m]odes such as lectures, journal articles, newspaper reports, and so on can be considered as nodes in the network of conversation for action [...] Ritual such as church prayers, on the other hand, could be considered within the framework of conversation for social maintenance” (p. 104). Her model of “conversation for action” focuses on instrumental interaction (i.e., accomplishing “action” in line with intentional goals) – a natural choice given

the corporate business environment in which her data was gathered. This aligns Murray's work with other early CMC investigations in the context of organizational communication, but her emphasis on 'conversation' and attention to the social goals of mediated interaction is both prescient and uncharacteristic.

Investigating how different media and modes of interaction perform different relational functions and social goals related to immediacy, formality, etc., Murray identifies a number of conventions for "reduc[ing] the number of keystrokes" (a practical issue in the use of a system which limited messages to two lines of text): *syntactic simplification* (i.e., subject deletion, auxiliary deletion, determiner deletion, copula deletion), *markers* (i.e., asterisks for emphasis; letter repetition, e.g., extra vowels for rising intonation; punctuation repetition for emphasis), and *abbreviations*. She also provides some examples of emoticons, which she argues function as "suggestions (largely tongue-in-cheek)" for avoiding message "ambiguity and misinterpretation resulting from the absence of oral/aural channels" (p. 24). "While ambiguities and misinterpretations do occur," she argues, "CmC [sic] within this community fulfills interpersonal functions and is considered appropriate unless real damage is likely to occur to interpersonal relations. Within the IBM VM community, the system of E-messages functions because users know its special rules" (p. 25).

Using the same data, Murray (1991b) applies a more cognitive-rhetorical perspective to evaluate the effects of medium on the written communication composition process by examining synchronous messaging practices (where the "process is the product"). Here, as above, 'computer conversation' is characterized by grammatical features common to face-to-face interaction, such as interpersonal involvement (i.e., active voice, personal pronouns, emotive and informal diction, hedging and vagueness, paralinguistic cues, and direct quotation) and

fragmentation (e.g., ellipses, contractions), as well as features more indicative of formal written communication, such as both personal detachment (more “I” or “one”) and integration (e.g., nominalization, attributive adjectives, participles, and complement and relative clauses), technical language, and definiteness. Similar to face-to-face conversations, computer conversations “make use of some structural organizers [...] such as openings and closings as well as turn-takings” (p. 36), but with “complex turn-taking, absence of adjacency pairs in openings and closings, and often the complete absence of openings and closings characteristic of oral conversation and written letters” (p. 37). Murray argues that

[t]he context for composing computer conversations includes a combination of temporal, spatial, and channel characteristics peculiar to this medium. These unique temporal, spatial, and channel dimensions shape the personal memory context as well as the cognitive strategies of planning, translating, and reviewing [messages ... C]ognitive process and context are interdependent.¹⁰ (1991b, p. 38-39)

In such a sociotechnological context, better typists are better communicators, but typing takes longer than speaking, and network speeds and reliability affect transmission and reply time. Murray argues that in her research population “[c]omputer conversationalists knew the structure and function of alternative discourse types such as face-to-face interaction or telephone conversations, electronic or hard-copy mail, memos, and documents [...choosing] from among these options the genre most appropriate for the rhetorical purpose and audience” in a “shifting rhetorical context” (p. 44-45).

Asteroff (1987), Blackman (1990), Werry (1996), and Utz (2000) provide important refutations to the early computer-mediated communication literature, based largely on task-

¹⁰ A quarter century later, Rotman (2008) makes the closely related argument that “every act of self-enunciation is medium-specific”—see Chapter 3.

oriented communication in organizations, about the paucity of social cues available in computer-mediated interaction. Murray, while still oriented toward task-oriented organizational communication, describes a range of grammatical and pragmatic features of computer-mediated interaction that also belie the contention that mediated interaction is inherently ‘impersonal’. In an important direct test of such cues-reduced assumptions, Lea & Spears (1992) argue that paralinguistic features are, in fact, an integral component of computer-mediated communication influenced by the specific social context. Arguing that paralinguistic cues are integral to all written communication, particularly correspondence, they find that in situations where communicators have little else to go on, we rely on cues and stereotypes to form impressions and judgments about others (just as we do in novel face-to-face situations and contexts). In other words, “the reduction in the number of cues available in CMC does not point to a reduction in the social context of CMC” (p. 324). In their social identity and deindividuation (SIDE) theory, Lea & Spears argue that people bring to mediated interactions a set of social identities that affect the conduct and outcomes of the communication; the relative salience of these identities (self versus group) determines which particular norms and standards are adhered to. When group identity is salient, paralinguistic cues are interpreted as a prototypical feature of the group (and judged more positively), while when self-identity is salient, they will be more readily (and more negatively) perceived as individual idiosyncrasies. In a study of novice and experienced email users, the authors found that under certain conditions paralinguistic cues (in this case misspellings, mistakes, and expressive punctuation) assisted in impression formation for both groups. In a second study, “paralinguistic marks, which were spontaneously generated during group discussions, were also associated with impression formation, and furthermore, [...] their interpretation as positive intragroup social cues or as negative interpersonal cues depended on

the preestablished group or individualistic context of the communication” (p. 335). Therefore, contrary to the suppositions of social presence and media/information richness theories, “a lack of interpersonal cues, relative to face-to-face interaction, does not necessarily mean that the communication that takes place is impersonal, but that processes of social cognition ensure that impressions of communicators are formed from whatever meager cues are available” (p. 336).

In a similar challenge to conventional assumptions about the tenuousness of interpersonal interpretation in text-based communication, Hancock (2004) investigated the use and interpretation of irony in computer-mediated communication compared with face-to-face interaction, hypothesizing that communicators would use less irony in mediated contexts due to the challenges of interpretation given a lack of nonverbal cues. “Contrary to expectations, speakers in the computer condition used *more* irony than face-to-face speakers. Comprehension of irony did not appear to differ across settings, although addressees in the computer condition provided less feedback (positive or negative) to their partners about their comprehension” (447). Mediated irony cues included amplification, ellipsis, punctuation, emoticons, and adapted vocalization; face-to-face irony markers included amplifiers, prosody, laughter, and kinetic signals. Hancock tentatively suggests that “Perhaps punctuation can be considered the prosody of text” (460), a position discussed earlier by Chafe (1998). All equivalent irony cues were more prevalent in mediated interaction (sarcasm by far) with the exception of understatement.¹¹ Regardless, computer-mediated participants rated their partners more positively and as more humorous than those in the face-to-face condition, and there was little evidence in either condition that irony was misinterpreted. Hancock posits that the difference in the two modes is a

¹¹ In contrast, Whalen, Pexman, & Gill (2009) found that riskier forms of nonliteral language, such as sarcasm, were used sparingly in email and more often marked with discourse markers than forms deemed less risky, such as hyperbole.

result of the different assumptions relative to impression formation, mediated communication being more anonymous, thereby lowering the potential costs of misinterpretation, and being less bound to politeness conventions, thereby reducing reflexive self-protection behaviors. Hancock suggests that verbal irony may be used more heavily in mediated contexts in order to compensate for the lack of physical cues. He further suggests that the somewhat surprising lack of emoticons as irony signals in his data is explained by the idea that one of the primary characteristics of irony is subtlety: emoticons, as iconic signs, are too blatant, give too much away by reducing polysemy.

Emoticons, as has already been made evident, have been a particular focus of interest for both academics and the popular imaginary, which have been alternately fascinated by the novelty of these verbalized nonverbal forms and horrified by what they are thought to indicate about the language and communication skills of the (initially, at least, primarily young) people who use them, as well as supposedly declining language standards, generally (though studies such as that of Grace, Kemp, Martin, & Parrila, 2013, tend to find that young people know when “textisms” are appropriate and when they are not; see also Cingel & Sundar, 2012 and Tagliamonte, 2016). Because of their obvious nonverbal functionality presented in verbal form, Lo (2008) dubs emoticons *quasi-nonverbal cues*. Thompson & Foulgar (1996) noted the moderating effect of pictographs (i.e., emoticons), as “surrogates for nonverbal behavior,” on the perception and interpretation of flaming behavior¹². Hellerstein (1989) hypothesizes that “for most users of electronic communication icons [i.e., emoticons], rather than substitute for nonverbals, are used

¹² The term “flaming” refers to excessively argumentative, often overtly rude and hostile communication in electronic text interaction. In contemporary parlance this would be considered a form of ‘trolling’ (though in earlier contexts, flaming was often thought to be the result of miscommunication – and, as indicated here, potentially mitigated by paralinguistic cues such as emoticons – rather than necessarily intentional provocation).

to enrich the communication. [...C]omputer-mediated communication presents an outlet for expressing emotions without actually having to deal with them or confront them directly” (p.243), i.e., face-to-face. In a study of emoticons in four higher education email listserves, Rezabek & Cochenour (1998) aimed to “1) discuss the utility of emoticons as visual cues from the perspective of traditional communication models, and 2) present and discuss research regarding the frequency and variety of emoticons” in computer-mediated interaction (p. 202). The authors specifically relate emoticons to “body language” and nonverbal communication (typically facial expression), but do little beyond counting usage on different listserves and do not, in fact, provide a discussion of how emoticons might relate to nonverbal communication.

Walther & D’Addario (2001), in contrast, investigate the impact of emoticons on email message interpretation and affect using findings from nonverbal communication research to contextualize the relationship between emoticons and verbal behavior. They note that in nonverbal communication research, visual (especially facial expression—for which emoticons, as ‘smileys’ were often taken to be directly, iconically representative) and vocal cues are often found to carry more interpretive weight than verbal cues, particularly in the interpretation of emotion and affect, but such findings are often ambiguous and context-dependent. They argue that previous research has taken for granted the communicative/interpretive value of emoticons as being more or less equivalent to nonverbal cues, despite the fact that they “are not, literally speaking, nonverbal behavior” (p. 329): “Emoticons may or may not have the same intentional connotations as nonverbal behavior,” but the use of emoticons cannot be unintentional or accidental, i.e., there is always a rhetorical and strategic element in the use of such cues. They point out that “CMC commentators discuss emoticons in terms of their emphatic function or signaling function, not mere repetition or substitution of otherwise-conveyable verbally

transmitted meaning” (p. 330). Asking whether there might be a connection between the increase in smiling seen in face-to-face attempts at persuasion/influence and evidence that even simple graphics in text messages achieve greater social influence than verbal messages alone, the authors found a high level of consistency in interpretation of emoticons in email messages, consistent, in fact, with the consistency of interpretation of actual facial expressions. However, they argue that, overall,

emoticons had few impacts on message interpretations [...] and when they did have an impact, they were not consistent across replications [...] In most cases, emoticons were overwhelmed by the valence of verbal statements that they accompanied. [...] the emoticon may serve the function of complementing verbal messages at best but not contradicting or enhancing them. (Walther & D’Addario, 2001, p. 341-342)

Finding that emoticons showed a negative interpretation bias, consistent with the negativity effect in person-perception dynamics, the authors conclude that in text-based communication “graphic representations may function more as verbal behavior than as nonverbal behavior functions. Alternatively, emoticons may function as ‘phatic communication’ [...] redirecting the function from a phatic one to a content exchange” (p. 342). Walther & D’Addario conclude with an interesting speculation:

Perhaps emoticons do not actually serve direct socially communicative functions but an indirect one. Although writers of e-mail indeed use emoticons, perhaps the generation of an emoticon acts as a self-signaling cue, prompting the writer to write in such a way that is as expressive as he or she intends. Such is considered the sometimes function of nonverbal gesturing, also. Individuals often use gesticulation to help them stimulate their verbal selections and regulate their verbiage by using gesture to make visible representation of that which they are trying to articulate as they speak [...] Emoticons may help the writer, not the reader, in a similar way, by helping to express, to check, and if need be to edit, that which may be unclear during initial message production. As such, emoticons are not communicative but generative. (Walther & D’Addario, 2001, p. 343)

More recent studies, however, have not unequivocally supported this idea (though the idea that self- and other-oriented communication behaviors are so distinguishable is problematic, at best). In a large quantitative corpus analysis of blog, chat, and email data, Riordan & Kreuz (2010) found that paralinguistic cues (i.e., vocal spelling, emoticons, and the manipulation, e.g., repetition, of several forms of punctuation, symbols, and lexical form, e.g. capitalization) were most commonly used to indicate emotion or to disambiguate messages, with no significant differences seen across the different communication channels. Derks, Bos, & von Grumbkow (2007) found emoticon use among secondary school students to be heavily context- and function-dependent, and that more emoticons were used in socio-emotional than in task-oriented contexts, reflecting common face-to-face norms. Citing Walther & D'Addario (2001), the authors acknowledge that though "emoticons are not actually nonverbal behavior," emoticon use seems, in general, to track to emotional expression in face-to-face interaction. However, while in face-to-face contexts people are generally more positively emotive, in mediated contexts positive and negative emotional expression are relatively equivalent, which the authors attribute to the relative anonymity of mediated interaction affecting conventional social biases against the expression of negative affect. However, in a separate study Derks, Bos, & von Grumbkow (2008a) conclude that "to a large extent, emoticons serve the same functions as actual nonverbal behavior" (p. 379) with communicative motives for emoticon usage including expressing emotion, strengthening the message, regulating interaction, and providing interpretive perspective (see also Fullwood & Martino, 2007; O'Neill, 2010). Similarly, Derks, Bos, & von Grumbkow (2008b) found that emoticons are used to express emotion, strengthen a message, and express humor. They also confirmed that emoticons are used more often with friends than with strangers and in more positive than negative contexts.

In contrast, Markman & Oshima (2007) argue that emoticons serve primarily as conversational punctuating devices (see also, Garrison et al, 2011), and Sakai (2013) describes the use of emoticons as conversational closings in Japanese mobile phone text conversations. Bays (2010) argues that emoticons indicate a form of visual or iconic prosody (recalling Hancock's, 2004, suggestion that punctuation is the prosody of text). Similarly, comparing the function of emoticons in digital discourse to the function of laughter in sign language conversation, Provine, Spencer, & Mandell (2007) posit a conversational "punctuation effect": "Laughter occurs at those places in the speech stream where punctuation would be placed in a transcript of a conversation" (300), which reflects the dependence of laughter (as a pragmatic form) on linguistic structure. The authors argue that the usage of emoticons and similar text-discourse conventions, which occur between phrases, can be understood analogously as emotional or affective meaning-bearing icons: "LOL [...], for example, may be placed in text at the points where conversational experience has taught us to expect laughter" (304).

In their important contribution to the elucidation of the function of emoticons, Dresner & Herring (2010) apply speech act theory to argue that the primary function of emoticons is not, in fact, to convey emotion at all, but (evoking hints in Asteroff, 1987, and Blackman, 1990, regarding the signaling of intention) to convey pragmatic meaning as illocutionary force, which can but does not necessarily include the bearing of explicitly emotional content or the indexing of bodily and facial movements. In this sense, they argue, emoticon function "needs to be understood in linguistic, rather than extralinguistic, terms" (250), and, in fact, that the term *emoticon* is a misnomer that may be biasing the investigation of these discursive phenomena as iconic (as opposed to pragmatic) indicators of emotion indexed as facial expression (which is problematic in and of itself since facial expression is far from a straightforward signaling

system). The authors enumerate three pragmatic functions of emoticons: 1) emotion indicators, mapped directly to facial expression, 2) nonemotional meaning indicators mapped onto facial expressions, and 3) illocutionary force indicators that do not map onto facial expression. Similar findings lead Jibril & Abdullah (2013) to argue that emoticons are more than paralinguistic elements, but rather carry “distinctive significantive functions. In other words, they are morpheme-like units and could be derivational, inflectional, or abbreviations but not unbound. [...T]hey should be approached as contributory to conversation itself not [as] mere[ly] compensatory to language” (p. 201). These various functions of emoticons, in classic pragmatic function, skirt the borders of the linguistic and non-linguistic—or, more precisely, the syntactic and the semantic.

In contrast, there does as of yet not seem to be much, if any, published research dedicated specifically to the study of emojis, graphically rendered symbols first available in specific, branded media, particularly instant messaging and text-messaging apps, as well as many email services. Emojis were first developed by a designer in the Japanese mobile technology company Docomo in the mid-1990s (Blagdon, 2013; Emoji). The Unicode 6.0 standard incorporated 722 emoji characters, 114 of which were based on the original Japanese emoji (Brownlee, 2014a). These characters, in particular, retain a variety of Japanese-specific cultural meanings that are not always apparent to users from other cultures (Goldberg, 2014). When addressed at all (e.g., Huang, Yen, & Zhang, 2008; Kavanaugh, 2010; Sudyaki, 2011; Kadir, Idris, & Husain, 2012) emojis are treated indistinguishably from conventional emoticons rendered with typographic symbols. This is likely because emojis began as graphic renderings of common emoticons that can even now, in some systems, be actively encoded into a message by typing the appropriate symbols: typing “:)” = “☺” in Microsoft Word. This dearth of research attention will certainly

not last, however, since emojis have become a common component of digital interaction as well as an object of particular fascination (or invective) for some—see for example *Moby Dick* ‘translated’ into emojis, Wagner, 2013; or even a social network, emoji, that uses only emojis (<http://emoj.li/>) and an emoji-only chat network (emojicate, available as an iOS app), the Western equivalent of Itou, Motojin, & Munemori’s (2013) proposed chat program based on manga conventions. Because of their graphic character, emojis are able to more clearly present iconic images than typographic emoticons, despite the impressive creativity of emoticon users demonstrated in numerous popular (e.g., Sanderson, 1993) and academic (e.g., Danet, 2001) treatments. The challenges that these iconic images bring to the production and management of digital discourse in applications with a global or near-global reach—far beyond the interpretive challenges of text-based emoticons—is being recognized as a significant one in terms of intercultural communication, for example (see Brownlee, 2014b; Schwartzberg, 2014). Some have made the case for emoji (see Rosenfeld, 2014) and emoticons (Azuma & Maurer, 2007; Azuma & Ebner, 2008) being the beginning of a new, ‘universal’, visual language—an argument (not incidentally) related to arguments and attempts in earlier centuries for a ‘universal’ language based on gesture.

2.2.2 Discursive Play, Online Performance, & Digital Identity in Cultures and Communities

The comparative social and interactional uses of emoticons and other paralinguistic and pragmatic markers in digital discourse point toward studies of identity performance and play in textual interaction; see, for example, Vandergriff’s (2010) extensive review of the literature on humor and linguistic play in computer-mediated communication and Green’s (2007) discussion

of ‘textisms’ as slang that recalls Halliday’s (2007) concept of “anti-languages.” A decade earlier, Herring (1999a) emphasized the ludic character of synchronous messaging in addition to discussing its common nonverbal conversational markers as “backchannels,” and other textual devices for turn-change signaling, cross-turn reference (e.g., forms of addressivity), and topical organization. In a classic paper, Danet, Ruedenberg-Wright, & Rosenbaum-Tamari (1997) detail an IRC interaction in which emoticons are playfully and creatively used to iconically present embodied behavior. The authors consider the highly ludic character of IRC using a micro-sociolinguistic approach and fault earlier researchers for previously ignoring playful and expressive elements of computer-mediated communication in an emphasis on task-oriented, instrumental communication (see also Danet, 2001). Subsequent research has often addressed linguistic play and creativity in mediated interaction, especially amongst young people (see for example Kasesniemi & Rautianinen, 2002; Ito, 2010; and Vaisman, 2011).

Given this strongly ludic character of computer-mediated interaction outside of the organizational context, identity performance has been a common topic in text-based CMC research since the early to mid-1990s (e.g., Turkle, 1995). In attempt to addresses the microprocesses of such performance, Jacobson (1999) uses prototype theory (cf, Lakoff & Johnson, 1980; Lakoff, 1987) to examine aspects self-presentation and impression formation in MOOs, MUDs, and chat rooms versus “reality,” such as character names (i.e., pseudonyms), direct descriptions, volubility, and language style. A critical aspect of such identity performance is gender, and the investigation of gender performance online has been another rich vein of theory, research, and scholarship (e.g., Stone, 1995; Herring, 1996; Danet, 1998; and more recently Marciano’s, 2014, investigation of online transgender discourse and identity performance). Perhaps surprisingly, people, in general, are typically quite good at inferring

gender from text-based communication (Thompson & Murachver, 2001). Witmer & Katzman (1997), among several early studies of gender and language online, point to conventional descriptions of gender variation in language to explain this, which in digital discourse translates to, among other things, the typical finding that women tend to use more ‘graphic accents’ (e.g., emoticons) and punctuation (e.g., Waseleski, 2006, Tannen, 2013) and are generally more expressive than men (e.g., Fox et al, 2007). Fullwood and Martino (2007) confirmed that higher levels of emoticon use are generally associated with female gender, and McAndrew & De Jonge (2011) similarly supported the contention that email readers tend to interpret the increased use of expressive punctuation as an indication of female gender.

In a number of studies of gender and language variation in digital discourse, Herring (e.g., 1999b, 2000, 2003, 2010a; Herring & Paolillo, 2006; Herring & Zelenkaukraite, 2009) has found that women tend to be more apologetic and supportive, offer more justification for their opinions, and generally be more expressive (see also Tannen, 2013), while men tend to be more aggressive and assertive, with some variation depending on the specific medium (e.g., blogs versus SMS). Hussey & Katz (2006) found that men use more metaphor in online conversation than women, regardless of context, as Hancock (2004) found that men use more irony and sarcasm online. This supports Utz’s (2001, *op cite* Riva, 2002) findings that men were more likely to use emoticons for sarcasm and teasing, while women were more likely to use emoticons to express humor. In a study of Norwegian teenagers’ text messages, Ling (2005) found that teenager girls send more messages, use more complete syntax, include more salutations and closings, and use better punctuation than boys, a finding that Baron (2005) notes to be consistent with previous findings that female writing and speech tends to more closely approach normative standards than that of men. In terms of reading, rather than performing gender, however, Herring

& Martinson (2004) found evidence that basic gender stereotypes (as activated by conversational topic and content) have more influence on judgments of gender in text-only interaction than linguistic or stylistic markers of gender.

Noting that the implicit gender bias in the popular condemnation of emoticons at the turn of the millennium projected a general bias against emotional ('feminine', oral) expression in favor of more rational ('masculine'), literate (written) expression, Wolf (2000) found that, rather than reinforcing the "emotional female" stereotype, males in mixed-gender groups tend to adopt a more 'feminine' style of emotional expression (or at least emoticon use). In accord with other work applying accommodation theory to digital interaction (e.g. Riordan, Markman, & Stewart, 2012), Thomson, Murachver, & Green (2001), likewise, found that email users tended to adapt their own language to that of their interlocutor, regardless of gender. Similarly, in a study of chat room conversations amongst adults of a wide range of ages, Fullwood, Orchard, & Floyd (2013) found that although women used more emoticons (a common finding, e.g., Ledbetter & Larson, 2008; Tannen, 2013), men used an equivalent range of emoticons, supporting the idea of convergence toward feminine-marked language styles in mixed gender groups. Conversely, Bamman, Eisenstein, & Schnoebelen (2014) found that on social network sites same-gender language markers correlate with network gender homophily (i.e., males with a high ratio of males in their networks demonstrated more masculine-marked linguistic features; women with a high ratio of females in their networks demonstrated more feminine-marked linguistic features). In an interesting study of gender self-presentation, Palomares & Lee (2010) found that the random assignment of gender-matched avatars increased the likelihood of gender-typical language, while "gender-mismatched avatars promoted counter-typical language, especially among women" (p. 5). These findings, in general, support the interpretation that online language

usage reflects typical offline gendered language and communication patterns, but with some situational and goal-oriented convergence (cf, Boneva & Kraut, 2002; Kaul & Kulkarni, 2010; O'Neill, 2013; Fullwood, Orchard, & Floyd, 2013). In short, gender is performed online in language as it is performed offline (Tannen, 2013).

While some evidence suggests that explicit gender differences in online language are diminishing (e.g., Huffaker & Calvert, 2005; Fox et al, 2007; Fullwood, Morris, & Evans, 2011), with perhaps, in some cultural contexts at least, some relationship to broader changes in gender norms (cf, Onadeko, 2010), Baron (2004) found that digitally mediated interaction reflects conventional gender norms common to both face-to-face conversation and written language standards (see also Herring 1996, 2000, 2003). She analyzed instant messaging interaction in terms of linguistic structure and specific “lexical issues” (abbreviations, acronyms, contractions, and emoticons) basing gender distinctions on the conventional male/informative versus female/interactional-involved-social characterizations, as well as on previous research suggesting that “women's speech reflects standard phonological, lexical, and grammatical patterns more than men's does” (Baron, 2004, p. 402). Based on her findings, Baron argues that common abbreviations (e.g., “lol”) are often used as “phatic fillers” (equivalent to spoken “ok” or “really”) rather than as denotative markers (a finding that resonates with Dresner & Herring's, 2010, argument for electronic paralinguistic features as markers of illocutionary intent), and the usage of such conventionalized abbreviations in her sample shows no gender-based pattern. However, while males used more contractions, females (again) used more emoticons (in fact, *all* male emoticon use in this particular study was by a single individual in conversation with female interlocutors). Based on these findings, Baron argues that female IM conversations “reflect a female *writing* style rather than a female *speech* style” (p. 418), supported by a generally more

interactional and normative-standardized style (including more proper punctuation and capitalization) among females.

Another critical area of identity performance online is similarly related to broad cultural considerations.¹³ While the early internet, being the invented in and under control of the U.S. government and corporate interests, has been dominated by the English language (down to the ASCII alphabet originally used to encode its basic features), this is a situation that has evolved rapidly over the past two decades. Themistocelous (2010) provides a valuable historical background and review of online orthographies, examining a variety of adaptations of the ASCII character set to different languages. Olúbòdé-Sàwè (2010) discusses the challenges and pitfalls of adapting romanization practices to indigenous African languages in the introduction of ICTs. Back & Zepeda (2013) investigate the mixing of Spanish and indigenous Quecha-influence orthography in Peru. Warschauer, el Said, & Zohry (2002) and Palfreyman & al Khalil (2003) investigate users' romanization practices in Arabic-language computer-mediated textual interaction, while Vaisman (2011) explores teenage Israeli girls' gender performances in the creative use of Hebrew orthography and digital typography.

This and other work follows Danet & Herring's (2003) special issue of the *Journal of Computer-Mediated Communication* dedicated to the multilingual internet, and their subsequent edited collection (Danet & Herring, 2007). Since this drawing of new media researchers'

¹³ A related and growing area of interest is concerned with how specific ethnic and cultural groups around the world make use of social media and language in the performance of shared identity (e.g., Nguyen, 2015), such as in the phenomenon of 'Black Twitter' (e.g., Brock, 2012; Sanjay, 2013; Cunningham, 2014; Florini, 2014; Steele, 2014), though the recent success of the #BlackLivesMatter movement has both generated interest and slightly shifted its direction (see, e.g. Guest Editor Bryant Keith Alexander's, 2016, recent special issue of *Cultural Studies <--> Critical Methodologies*). The study of race and ethnicity online is a significant area of interest, see e.g., Nakamura (2007, 2010), Brock (2011), Daniels (2012), Nakamura & Chow-White (2012), Noble & Tynes (2016).

attention to the fact that digital interaction is not limited to interaction in English, a wide range of scholarship (though arguably still not enough) has explored and compared linguistic and pragmatic features of digital discourse in different languages. Taiwo (2010a) and Thurlow & Mroczek (2011) provide two recent collections emphasizing the non-English and multilingual internet, and investigation of Chinese internet discourse is burgeoning (e.g. Kuah-Pearce, 2008; Yunyu, et al, 2008; Tien, 2010; Fan, Zhao, Chen, & Xu, 2013; Yuan, Feng, & Danowski, 2013; Hsieh, Wang, & Wang, 2014; Hu, 2014; Wei, 2014). In addition to this scholarship in English, Herring, Stein, & Virtanen (2013, p. 4) note that “Native-language traditions of research into computer-mediated language have now become established in Germany, France, and the Nordic countries, and are starting to emerge in Japan, China, Spain, Italy, and Greece. Cross-linguistic research has identified both similarities and cultural specificities as regards language use online.”

One of the most common pragmatic phenomena considered in the context of multilingual computer-mediated communication has been code-switching between languages and language mixing—usually English (as internet and globalized *lingua franca*; but see, e.g., Siebenhaar, 2006; Rajah-Carrim, 2009) and another language of a specific online speech community (Androutsopoulos, 2013a, provides thorough review of this literature). For example, Georgakopoulou (1997) investigates code-switching between Greek and English in email among Greek speakers in the U.K., finding that such behaviors function as contextualization cues to “evoke knowledge frames,” typically between formal/professional and informal/personal. He argues that in the absence of nonverbal cues, “code-switches prove to undoubtedly represent the lion's share of cues in the process of contextualization” (p. 148), often as markers of illocutionary force. Such code-switches are aligned with transactional frames and personal footings, as well as with hedges that often function to moderate potentially face-threatening requests (see also

Koutsogiannis & Mitsikopoulou, 2003; Leppänen et al, 2009; Tsiplakou, 2009; Androutsopoulos, 2012). Similarly, Hinrichs (2006) provides an extensive examination of code-switching between English and Jamaican Creole in email. Cunliffe, Morris, & Prys (2013) examine code-switching between English and Welsh by young people on Facebook, Goldberg (2009) discusses Spanish-English code-switching in email, and B. Sharma (2012) reports on the differential relational uses of English and Nepali also on Facebook. Similarly, Taiwo (2010b) investigates language mixing and code-switching in the Nigerian context, and Deumert (2014a & b) examines online communication in English, Afrikaans, and isiXhosa (see also, Deumert & Masinyana, 2008; Velghe, 2011).

Investigations of the use of Asian languages online has been particularly interesting, not only given the challenges of adapting pictographic/iconic scripts to technologies originally designed for a romanized and predominantly English digital world, but also given the novel linguistic and pragmatic characteristics and adaptations Asian-language speakers have developed in digital discourse. Addressing the Taiwanese context, Su (2003) draws on Ochs's notion of indexicality (but in terms of code and register rather than strict gender indexing) and Bourdieu's concept of linguistic capital to examine differential uses of language, specifically forms of romanized Taiwanese and Taiwanese-accented Mandarin, on two Taiwanese BBSs. Su provides a sociolinguistic history of Taiwan explaining the ways in which Taiwanese and Mandarin index different sociopolitical and economic interpretations in the Taiwanese context, and how they both interact with English. Further, Su explains Taiwanese writing systems, e.g. Chinese characters and romanization schemes, and the technologies for their input in order to discuss code-switching between Chinese and English writing, as well as stylized and other accented

forms of Mandarin, with an emphasis on the ludic aspects of computer-mediated communication, generally (see also Yang, 2007; Hsieh, Wang, & Wang, 2014; C. Lee, 2007b).

Matsuda (2001, 2002) provides some of the earliest investigations of Asian-language digital discourse, focusing on identity performance (in terms of individual “voice”) and relational social power in online Japanese discourse (blogs and email). Fouser, Inoue, & Lee (2000) examine and describe the comparative pragmatic character of online language in English, Japanese, and Korean emphasizing the adaptation of the different orthographies available to users in the different languages to convey messages typical to ‘oral’ or face-to-face interaction. Focusing on “expressive speech acts (greetings, apologies, pleasure/happiness, sadness, praise/compliments)” (p. 58), the authors “found that users of online communications developed a variety of ways to convey orality in expressive speech acts by creating new expressions while drawing on slang, popular culture, and oral traditions” specific to their cultures and more focused speech communities (p. 62). Rivière & Licoppe (2005), however, demonstrate how different language-cultures, in this case French and Japanese, make use of the affordances of ICTs quite differently. In this specific case, Japanese text messaging users were more likely to use pictographic means for emotional expressions (i.e. emoticons and emoji) than French users, who were more likely to make use of more conventional, if creative, verbal means of affective and ludic expression.

In a cross-cultural study of nonverbal representations in English and Japanese blogs relying on high/low context and individualist/collectivist cultural dimensions, Kavanaugh (2010) found that the high-context Japanese culture was reflected in a much greater use of emoticons, generally—a finding consistent with other earlier cross-cultural comparisons (e.g., Kayan, Fussell, & Setlock, 2006). Focusing on blog comments, where most of the emoticons appeared,

and where they serve obvious interpersonal communicative uses, the authors compiled nine primary functions of emoticons: 1) as devices of modesty, 2) as hedging devices, 3) to soften requests, 4) as positive politeness strategies, 5) as rapport-building devices, 6) for humor, 7) to convey emotion and/or humanize online interaction, 8) for emphasis, and 9) in lexical use (where a graphic image, i.e., *emoji*, replaces a word). Given with the findings of Rivière & Licoppe (2005), the latter points to a possible reason for the disparity in the Japanese and English corpora: the comparative popularity and, therefore, practical availability of emoji in the Japanese blogging context at the time of the study.

Sugimoto & Levin (2000) compare Japanese and American email pragmatics, with an emphasis on the differences between Asian and Western emoticons (see also, Cha, 2007). Describing the critical importance of general linguistic context to the study of computer-mediated interaction, they explain the three different, integrated Japanese writing systems (*kanji*, *hiragana*, and *katakana*), their relation to spoken language, and their histories and historical uses, e.g., *hiragana* as feminized and literary, *katakana* as masculinized and formal. They describe a variety of Japanese adaptations to English-language dominated digital communication forms, such as texting “39” (3-9 pronounced *san kyu*) for “thank you” and “88951” (which can be pronounced “ha-ya-ku-ko-ee,” a phonetic rendering of *hayaku*, meaning “quickly” or “faster”) for “hurry up.” They compare these to similar American number codes originally developed for numerical pagers, such as “1040” (a reference to the tax form) to mean “you owe me big-time,” or the more straightforward “911” and “411,” noting the practical cultural use of such forms as markers of in-group/out-group status. Differences in English and Japanese emoticons are similarly related to differential cultural understandings of emotion, emotional expression, and interpersonal boundaries shaped by social status.

Similarly, Nishimura (2002) discusses the three Japanese writing systems in addition to the romanizing *romanji* system, and how they are used differentially as expressions of personal style and connotation (e.g., *katakana* as a kind of “italic script”). Nishimura describes Japanese punctuation forms, as well as Japanese word-processing standards (e.g., the keyboard set-up and character-entry process), and examines a Japanese BBS for innovative online linguistic forms and expressions in comparison to English digital discourse scholarship, relying Danet's (2001) “common features of digital writing”: multiple punctuation, eccentric spelling, capital letters, asterisks for emphasis, written-out laughter and other vocalizations such as music and noise. Nishimura describes Japanese action-descriptors (i.e., “emotes”), emoticons, abbreviation forms, and capitalization, and compares their usage with English forms. Strategic use of different orthographic forms can “convey the speakers’ articulation as accurately as possible; in this way the sender can convey a high degree of affect and closeness, as if sharing the same physical space and time of conversation with the viewer.”

In another analysis of the Japanese context, Katsuno & Yano (2002) present a theoretical argument for the embodiment of computer-mediated interaction as articulated through Japanese emoticons, or *kaomoji* (literally, “face marks”) as a form of embodied self-presentation and identity performance. (Asian styles of emoticons are of particular interest since they are completely independent of and unrelated to Western ‘smileys’.) Evoking earlier accounts of embodiment in online interaction in the context of gender performance in the West (e.g., Stone, 1992, 1995; Danet, 1998), Katsuno & Yano argue that,

Although based upon the human body (and therefore potentially universal), the interpretation of meanings given to that body and their code of representation suggest a culturalised approach. *Kaomoji* draw upon a well-developed language of graphic expression even as they push that code further. Moreover, by creating an adjunct means

of expression based in the body, *kaomoji* thrust that body onto the screen where it lays stake to electronic intimacy. (Katsuno & Yano, 2002, p. 206).

Kaomoji, thereby function as “a nostalgic retreat into bodyhood [and] become electronic prostheses quite specifically of the face, suggesting a parallel with masks” (although there are also *kaomoji* depicting the hands, etc.) and more generally, prostheses “of emotion that accompanies social interaction” (p. 209), including their important ludic dimension and functional-pragmatic role in conveying tone and frame, and “negotiating intimacy.” Ptaszynski, et al (2012) explicitly argue that emoticons present nonverbal information in a lexical form and are thus “fully a part of natural language processing.” They then present a system for the automated analysis of *kamoji*-style emoticons based on the kinesic analysis of body language.

This discussion of emoticons as iconic evocations of embodied interaction provides a nice segue into the discussion of ‘orality and literacy’ in mediated communication that has encumbered the investigation and popular imaginary of ‘new media’ since computers and the first forms of computer-mediated communication became available. The pragmatics of new media have consistently troubled the distinction between these two ‘modes’ of interaction, even while making their differences all the more apparent.

2.2.3 Orality & Literacy: Discourse, Affect, & Mediated Conversation

The functions of emoticons as ‘nonverbal surrogates’ in different languages and styles, similar to those previously described in the solely Western/English-language context, again reflect the pragmatic uses of ‘electronic paralinguage’ in relation to common, embodied, nonverbal behavior in face-to-face interaction. For many researchers, this situation has been intuitively formulated in terms of the distinction between ‘oral’ and ‘literate’ cultures (cf Ong, 2002) and the ‘secondary orality’ which such computer-mediated paralinguage is thought to be

indicative of, in that online language seems to straddle the border between speech and writing, or between “orality” and “literacy.” Much ink, digital and otherwise, was spilt by scholars at the end of the 20th century and beginning of the 21st trying to precisely place computer-mediated communication along this continuum. Scholars in composition studies noticed much earlier that

writing has become more dynamic – more like talking and thinking – as writing tools have advanced. Writing has become more like talking as the process of translating ideas into written symbols has become faster and as the written product has become more changeable. (Daiute, 1985, p. xiv; see also Greenfield, 1984, and Lapadat, 2002).

In the challenge of taming these new media, the stakes were high, particularly for academics as educators. Murray (1988, 1991a, 1991b), for example, who framed her investigations of multimodal organizational communication as a study of the relationship between orality and literacy and the effects of computer-mediated communication on that dynamic, argues that the various available “[m]odes of communication are hybrids of literacy and orality and as each bundles literacy practices differently, we need to accept and account for different literacies” (Murray, 1991b, p. 151).

On the one hand,

we can think of online typed communication as in some way less rich than either speech or writing, and therefore doubly attenuated. [...] Digital writing is attenuated because the text is no longer a tangible physical object. [...] At the same time, online linguistic communication can also be viewed as attenuated speech. Because it is dynamic, interactive and ephemeral, it is like conversation [...] Paradoxically, it is [...] no less justified to speak of online linguistic communication as doubly enhanced [...] We can say that it is ‘enhanced speech’, since, unlike ordinary speech, it leaves traces, and can therefore be reexamined [...] Similarly, we can speak of digital writing as enhanced writing, since in its real-time interactive modes, the medium restores the presence of one’s interlocutor, long absent in the production of extensive texts. [...] The curious condition of being both doubly attenuated and doubly enhanced means that typed online

communication lies between speech and writing, yet is neither: in short, it is something new. (Danet, 2001, p. 12)

Davis & Brewer (1997), in their linguistic and pragmatic analysis of undergraduate interaction on topical online class discussion boards, describe such communication as falling between the formalism of written language and the synchronous flow of spoken interaction, “electronic discourse” having characteristics of each. Similarly, Ferrara, Brunner, & Whittemore (1991) argue that now that mediated communication can afford “immediate response, fading over time, and back and forth messages, the old distinction between written and oral language becomes less viable” (p. 22). “Interactive written discourse” is a “hybrid register that resembles both speech and writing, yet is neither” (p. 10).

In one of the first large corpus linguistic comparisons of face-to-face conversation, written communication, and computer-mediated interaction, Ko (1996) distinguishes these basic discourse types in terms of “involved” features (e.g., non-informational, interactive, affective), which generally characterize oral communication, versus “informative” features, which generally characterize written communication. While synchronous chat systems, for example, allow “users to approximate, to a greater extent than in asynchronous CMC, the speed and spontaneity of oral communication,” Ko ultimately determines that computer-mediated communication (as characterized by its grammatical features) is a unique communicative form that borrows from both spoken and written communication conventions. Similarly, Yates (1996) performed a corpus-based, Hallidayan comparison of spoken, written, and computer-mediated discourse along textual (*viz.*, type/token ratios and lexical density), interpersonal (*viz.*, pronoun use), and ideational (*viz.*, modal auxiliary use) dimensions. Textually, computer-mediated discourse was found to be closer to writing than speech, though more similar to spoken language on the

interpersonal dimension: “Our statistical results show that CMC differs from both speech and writing in all cases except modals of epistemic possibility” (p. 44).

Reviewing the literature on the grammatical description of instant messaging, Baron (2010a; see also 2010b) describes the conventional differences between speech and writing in order to place instant messaging language use on the continuum between these two poles. In comparison to writing, spoken language is described as dialogic (vs. monologic); ephemeral (vs. durable); present-oriented, concise, and (relatively) vague or highly contextualized; with comparatively simple sentence structure; and common use of pronouns, contractions, and deictics; but less common use of abbreviations and acronyms; and a vocabulary that is more concrete and colloquial with a narrower lexical range. Instant messaging, therefore, has “enough speech-like elements [...] to explain why it seems so natural to talk about IM ‘conversations’ and not IM ‘letters’” (2010a, p. 18).

It is likely because textual interaction seems to approximate ‘written speech’ (as opposed to the formal, prescriptivist character in which writing is generally held and taught—as a marker of ‘civilization’) that computer-mediated conversation has been subject to a wide variety of hand-wringing in the popular media and imaginary. (For an analysis of metadiscourse about online language in the popular and academic media, see Thurlow, 2006.) Reviewing and refuting claims that “netspeak” is ‘ruining the language’ and destroying the grammatical skills of ‘the youth’, Crystal (2001, 2009) provides extensive discussion of online language from a linguistic perspective (and applying Grice’s cooperative principle and maxims), pointing out that much of the supposed novelty of computer-mediated discourse (as with emoticons and digital paralinguistic forms above) can be found throughout the history of the English language (see also

Green, 2007) for the simple reason that linguistic play is inherent to language use, generally.¹⁴ Thurlow (2003) specifically refutes popular claims of language degradation due to the growing popularity of text-messaging. Examining 135 Cardiff University undergraduates' use of SMS, he finds that SMS language looks much like earlier forms of 'interactive written discourse' but with perhaps greater use of 'oralized' forms (e.g., verbalization of regional accents, onomatopoeia, and vocalizations). Few messages were found to be strictly informational; most were heavily relational with important elements of hyper-coordination, co-presence/subversion, etc. Thurlow posits three 'sociolinguistic maxims' that drive messaging practices: 1) brevity and speed, 2) paralinguistic restitution, and 3) phonological approximation, noting (while channeling McLuhan) that texting plays a social role in and of itself in that "mobile telephones are also fashion accessories and ludic resources in their own right [...T]he very act of texting has a cachet and communicates something about the sender" with the phone and its accessories (e.g., covers/cases, and ringtones, as much as linguistic adaptation) serving as resources for identity performance.

Soffer (2012) elucidates the biases involved in holding computer-mediated text-based conversation (which must be at least as much *conversation* as *text-based*) to the standards of the authorized written standard form of a language—a standard that simply doesn't universally exist for spoken language. Moreover, the supposed difference between online and offline 'speech' continues to be chipped away at. Kalman & Gergle (2014), for example, demonstrate that even letter repetition in computer-mediated communication—a cue that might intuitively seem to be highly textual rather than directly related to speech—is clearly formulated as the emulation of

¹⁴ I will resist a Deleuzian digression, but it is worth acknowledging the point that no social semiotic can exist without constant variation and adaptation, Deleuze & Guattari (1987), p. 60-66.

verbal cues (although, they argue, that connection seems to be attenuating; see also Tannen, 2013; Darics, 2013). In short, echoing and extending Baron (2004) and Crystal (2009), Tagliamonte & Denis (2008) argue that computer-mediated text may be a “unique new hybrid register” but “it reflects the same structured heterogeneity (variation) and the same dynamic, ongoing processes of linguistic change that are currently under way in contemporary varieties of English” (p. 3). In the implementation of and adaptation to computer-mediated communication systems, users “have learned to interpret silence, how to anticipate their audience, how to take turns and to make communication rather than accuracy of production their prime goal” (Murray, 1991b, p. 151)—and it is the difference between these two terms (‘communication’ and ‘accuracy’ of transmission) that attention to interaction, digital or otherwise, foregrounds. Communication by writing, in general, whatever the medium, seems to be gradually becoming more colloquial, more “speech-like” (Baron, 2003), and the line between writing as a ‘formal’ activity and speech as an ‘informal’ practice is widening and fading as language practices, in general—or at least, attitudes toward language practices—shift toward the informal. Or at least *appear* to shift toward the ‘informal’ as digitally networked technologies of mediated interpersonal interaction continue to multiply and become norm rather than novelty: it is unlikely that, in *any* culture, ‘formal’ or elite languages practices have *ever* been practiced more commonly or widely than ‘informal’ or colloquial language practices (despite what representatives of the elite might want to believe—or want others to believe). Again, the identification of writing with the elite and formal and speech with the colloquial and informal is an obsolete ideological distinction lugging racial, gendered, and colonial baggage.

In their recent quantitative analysis of the publically available Enron email corpus, Kalman & Gergle (2014) find that “letter repetitions often, but not always, emulate spoken

nonverbal cues,” suggesting that “in most cases the repetitions are an attempt to replicate an elongated phoneme that can be articulated in spoken language” (191; see Brody & Diakopoulos, 2011, for a similar application to automated sentiment analysis). Interestingly, their findings also suggest that while letter repetitions are becoming more prevalent in CMC, the link between the written cue of letter repetition and the spoken cue of elongating the phoneme may be weakening over time as the importance of the visual cue increases with the growing reliance on mediated conversation, generally. These changes reflect a generalized merging of the written and spoken forms of language as ‘texting’ enacts ‘oral’ forms and textual forms (such as acronyms and abbreviations) ‘leak’ into conversation. (In the meantime, rather than degrading formal writing habits, the textual character of much new media interaction may actually be *improving* writing skills, generally; see e.g., Plester, Wood, & Bell, 2008 and Plester & Wood, 2009). Tannen (2013) cogently argues that given the current integration of digitally networked text communication into everyday communication practices, it is of little use to consider ‘text’ and ‘talk’ as separate entities, “text as written language and talk as spoken language—but rather as ‘overlapping aspects of a single entity’: discourse” (p. 99).

Given these consistent themes, Hellerstein’s (1989) early rejoinder to the ‘cues-reduced’ crowd evokes little retrospective surprise: “conventions, rules and rituals of on-line behavior do not differ dramatically from rules of face-to-face or other mediated forms of communication” (p. 221). Two decades later, when much of the novelty of text-based digital interaction had worn off and the cues-reduced findings of early CMC research had been largely put aside, Hancock, Landrigan, & Silver (2007) found that digitally mediated interactants have little difficulty in determining the emotional valence of text messages. Hancock, Gee, Ciaccio, & Lin (2008) confirmed this finding and uncovered general pragmatic cues to affect in digital text

communication that reflect those in face-to-face conversation: negative affect is indicated by fewer words, more “sad terms,” and a slower rate of messages (see also Pirzadeh & Pfaff, 2012). As early as 1998, Galegher, Sproull, & Kiesler had argued that electronic “discourse [...] does not depart discernibly from oral and written patterns of conversation” (p. 524). In their wide-ranging review of the literature on the role of emotion in computer-mediated communication, Derks, Fischer, & Bos (2008) find no evidence that computer-mediated interaction is less emotional or less “personally involving” than face-to-face interaction (see also Menchik & Tian, 2008). While adapting to text-only interactional forms has its challenges (see Grinter & Eldridge, 2001), computer-mediated conversation does not dramatically depart from conversation, as more conventionally understood, in terms of human motivations and intentions.

2.2.4 Computer-Mediated Interpersonal Interaction & Discourse

Through the turn of the millennium, the growing variety of networked interactional technologies, phenomena, and behavior prompted a range of methods and perspectives for the investigation of new media well beyond its roots in organizational communication, from broad political-economic analyses privileging technological networks (e.g., Castells 2005/1988), to (gradually) mixed methods approaches (e.g., Jones, 1999; Mann & Stewart, 2000) as applied, for example, to the study of “virtual communities” (e.g., Rheingold 2000/1993, but see also Fernback, 1997, 2007) and ‘cybercultures’ (e.g., Featherstone & Burrows, 1995; Jones, 1995, 1997), as well as more micro-level investigations of self-presentation and identity formation in digitally mediated interaction. The challenges to conventional concepts of self and identity became glaringly apparent as networked technologies expanded their range (e.g., Turkle, 1986/1980; Barglow, 1994; Grodin & Lindlof, 1996), leading to varying degrees of hand-

wringing that are still with us today (e.g., Turkle, 2011). What developed was sustained interest in and attention to the enactment of self and social identities in spaces of digital interaction (e.g., Jones, 1999), which has grown increasingly sophisticated as networked communication technologies have been normalized (if not fully domesticated—some would rather argue that our technologies are domesticating *us*) and ever more deeply integrated into everyday social life (e.g., Lippicini, 2013).

The early investigations of the discursive enactment of ‘cyber-selves’ focused on the electronic text-worlds of multi-user domains (MUDs, e.g., Turkle, 1994, 1995) and other interactional spaces, including chat rooms. Waskul & Douglas (1997) provide a typical example, arguing that “the social nature of online interaction is [...] significantly more than the technological sum of the medium. [...] Through on-line chat-interaction, a ‘cyberself’ emerges, rooted in a unique form of communication that is disembodied, dislocated, anonymous, multiple-simultaneous, and faceless” enabling “a kind of ‘self-game’ where participants enact a multiplicity of selves” (p. 375). Given the contemporary surveillance apparatus and the general, inarguable need for secure identification and authentication for networked technologies, the multiple, fragmented identities afforded by anonymous online interaction are generally a thing of the past (see Kennedy, 2006), for better or worse, but identity play as, for example, a general aspect of adolescence—online or off—makes the investigation of discursive identity play an issue of continuing relevance (e.g., Valkeburg, Schouten, & Peter, 2005).

Nevertheless, more astute scholars of social interaction noted early on that such ‘misconceptions’ of discrete online and offline selves ignored the constant uptake of different relational social roles even in the ‘real’ world (e.g., Newitz, 1995). Wynn & Katz (1997) refute hyperbolic arguments about the ‘disembodied’ and fragmented multiple ‘selves’ of ‘cyberspace’

interaction by critiquing the limited notion of ‘self’ as a psychological entity apart from co-constructive social and interactional contexts. Attacking the technologically deterministic assumptions underlying such perspectives, McKenna & Bargh (2000) called for greater attention to micro-interactional processes of mediated social interaction and their implications for self and identity. Brevio, Ibarra, & Galimberti (2010), propose a similar ‘integrated’ social psychological approach to online interactions. Fortunati (2005) applies Goffman and Simmel’s understandings of the relational dependence of personality and the multiple roles inherent in the presentation of self in contemporary social life. She argues, for example, that mobile phones privilege ‘backstage’ at the expense of ‘frontstage’ interaction, creating a “mobile-induced exposure of separated roles and personalities” (p. 210) which can allow for greater personal control of psychological and public space. Hogan (2010) goes a bit further, providing a corrective to the application of Goffmanian self-presentation in online contexts in the form of a division between synchronous “situational” presentation and asynchronous, curated, “exhibition” presentation. This distinction points toward a separation of the *interactional* in digitally mediated communication from the *documentational*, which goes beyond simple temporal and chronemic distinctions and toward a more functional understanding of digital communication processes.

Acknowledging that people typically enact multiple, often overlapping, relational roles even without digitally mediated communication, however, doesn’t simplify the complexities of ‘context collapse’ inherent in, particularly, social media and social network interaction (see Marwick & boyd, 2010; Davis & Jurgenson, 2014). Lewis & Fabos (2005) investigate the affordances of multiple self-presentation and identity play in instant messaging, and boyd (2002) addresses this problem of multiplicity with the notion of ‘faceted identity’. Such positions make even more salient the problem of ‘authenticity’. Diago Marco (2002, *op cite* Yus, 2011, p. 42),

for example, argues that a username functions as a ‘mask’, a “*translucent filter* that allows for the inference of [only] a certain amount of information about the user who has chosen it” (see also, Bechar-Israeli, 1995; Heisler & Crabill, 2006). Such self-presentation functions are especially important in instrumental relational contexts, such as online dating sites (see, for example, Ellison, Heino, & Gibbs, 2006; Paviour-Smith, 2010; Tong & Walther, 2011; Toma & Hancock, 2013). Understandably, many such phenomena have been explored as Foucauldian ‘technologies of the self’ (e.g. Siles, 2012; Sauter, 2014).

Broader investigation of the differential social enactment of ‘true’ and ‘actual’ selves in relation to contextual self-presentations (see Bargh, McKenna, & Fitzsimmons, 2002) include McKenna, Green & Gleason (2002), who found that those who expressed a ‘self’ closer to their ‘true’ selves (i.e., those who engaged in less explicit and conscious identity play) in online interactions developed stronger and longer lasting friendships online and liked each other more after meeting offline. Investigating the language of teenagers’ blogs, however, Huffaker & Calvert (2005) found that young people were far more likely to present themselves ‘authentically’ than arguments about ubiquitous affordances of ‘identity-play’ would assume. But such ‘authenticity’ is far from simple; Davis (2010; see also Davis 2014) identifies four ‘spheres of obligation’ to (1) self, (2) interpersonal relationships, (3) online social norms, and (4) broad-level community values that shape young people’s expressions of identity in a networked social milieu. Following a line of investigation initiated by O’Sullivan, Hunt, & Lippert’s (2004) investigation of ‘mediated immediacy’, Bazarova, Taft, Choi, & Cosely (2014) discuss discursive strategies of self-presentation and verbal immediacy cues as markers of social distance critical to such relational performance and enactment. Fornaciari’s (2013) discussion of the

narrative construction of identity as applied to social media further supports the role of conventional discursive relational functions in networked communications technologies.

As noted above, such exploration of social identity in relation to ‘virtual communities’ has been robust (e.g. Schwämmlein & Wodzicki, 2012), particularly in the study of fan communities (e.g. Baym, 2000; Whiteman, 2009). Others have investigated more limited and situated self-presentations, as in the discursive and interactional development of professional identities in digital media (e.g., Ho, 2013). A growing body of work explores the enactment of conventional cultural (e.g. Chiluba, 2010) and religious (e.g., al Zidjaly, 2010) identities (or both, see Peuronen, 2011) in digital discourse and spaces of interaction, as well as the complex identity negotiations of transnational migrants (e.g., Perterra, 2005; Leurs & Ponzanesi, 2011; Leurs, 2012; Madianou & Miller, 2012; E. K. Lee, 2013; also see MIG@NET, 2012). Mobile technologies are critical to the enactment of such ‘absent presence’ (see Gergen, 2002; Lloyd & Gillard, 2010), but perhaps more interesting is the breakdown of the division between the ‘digital’ online world(s) and the ‘analogue’ offline world (e.g., Schwartz & Halegoua, 2014). The implications of such embodied actualizations of digital relational phenomena are exceedingly apparent in, for example, Marciano’s (2014) investigation of discursive identity negotiation practices among transgender digital and social media users and the complex ensuing relationships between online and offline contexts and practices.

Much of this identity performance occurs on social networks sites (e.g., Georgalou, 2010). Scholarly fascination with, for example, Facebook (e.g., Livingstone, 2008; Cover, 2012; Farquhar, 2013; García-Gómez, 2013; West & Trester, 2013), Twitter (e.g., Mischaud, 2007; S. Sharma, 2013; Zappavigna, 2014), YouTube (e.g., Androutsopoulos, 2013b), and even MySpace (e.g., Davis, 2010) continues to generate an expansive library of scholarship. An important

aspect of this social media and social network discourse is its highly graphic character. Zhao, Grasmuck, & Martin (2008), for example, demonstrate that identity performance on Facebook is largely non-discursive in the conventional textual sense, in that it is “shown” not “told.” This is even more apparent in investigations of photo sharing functions and sites (e.g., Davies, 2007; C. Lee, 2013; Mahay, 2013; though see Barton, 2010). But while digital images and graphic design are key elements in interpersonal communication technologies, and digital video and audio communication modes are increasingly available online (see Kappas & Krämer’s, 2011), text is still often (forcibly) asserted to be the primary (and implicitly fundamental and paradigmatic) mode of digital interaction. “[T]he real give-and-take of social life involving the Internet,” argue Walther & Parks (2002), “still occurs in text-based interaction.” Studies of mediated interaction, therefore, have relied heavily on discourse and content analytic methods (e.g., Herring 2004a, 2004b). As Herring notes, online interaction “typically leaves a textual trace, making the interactions more accessible to scrutiny and reflection than is the case in ephemeral spoken communication, [...] enabling researchers to employ empirical, micro-level methods to shed light on macro-level phenomena” (Herring 2004a, p. 338; see also Tausczik & Pennebaker, 2009). ‘New’ media, in the form of networked digital interactional technologies, even today, it is argued, “remains predominantly grounded in ‘old’ textual practices” (Herring 2004c, p. 33; see also, Geisler et al, 2001; Geisler, 2004, 2011) while becoming ever more deeply integrated into the daily practices of an ever-growing segment of the population as internet-enabled devices and network access become available to an ever wider range of people around the world. We will have reason to contest these ‘common sense’ conclusions and the assumptions they are based upon.

Approaches to digital discourse also include a growing body of work in psychology investigating, for example, personality and impression formation and management online in the absence of bodily nonverbal and social cues and, increasingly, the relationship of social media use to cultural identity performance (e.g., Mazur & Li, 2014) and psychological factors such as self-esteem (e.g. Vogel, Rose, Roberts, & Eckles, 2014).¹⁵ As early as Hancock & Dunham (2001) researchers argued that dyadic computer-mediated communication could serve to form personal impressions just as intense as those in face-to-face interaction. However, in the cues-reduced context of email, “racial stereotypes and bogus expectancies” are thought to exert a stronger influence on impression formation than in voice-only interactions (Epley & Kruger, 2005), and egocentrism (perhaps strengthened by a lack of immediate feedback) may lead to overconfidence in one’s ability to communicate clearly and unambiguously (Kruger, Epley, Parker, & Ng, 2005). On the other hand, Oberlander & Gill (2006) found that grammatical cues in text communication (i.e., email) could be reliable indicators of personality traits, such as extraversion, though a subsequent study (Gill, Oberlander, & Austin, 2006) found that other traits, such as neuroticism, were less apparent in text-only communication. However, Holtgraves (2011), examining SMS, found a number of significant correlations between a variety of linguistic and word count variables and such personality traits, including personal pronouns and extraversion, negative emotion words and neuroticism, positive emotion words and agreeableness. Back, Schmukle, & Egloff (2008), found a high degree of consensual agreement and accuracy in judgments of neuroticism, as well as openness, agreeableness,

¹⁵ Journals such as *Cyberpsychology*, *CyberPsychology & Behavior*, *Computers in Human Behavior*, and *Behaviour & Information Technology* are dedicated to exploring the connections between new media, digital media, and now social media and psychology. A surprisingly small, but closely related, area of investigation is online persuasion and compliance-gaining (e.g. Guadano & Cialdini, 2005).

conscientiousness, and narcissism—but *not* for extraversion—based simply on email address alone. In variably more ‘media-rich’ contexts, such as personal websites, personal impressions have, in general, been found to be highly accurate and “comparable in magnitude to those found in other contexts of interpersonal perception” (Vazire & Gosling, 2004, p. 123). Weisbuch, Ivcevic, & Ambady (2009) found that people liked by zero-history partners in face-to-face interaction were also liked on the basis of their Facebook homepages alone. Furthermore, expressivity and verbal self-disclosure on Facebook were independently predictive of nonverbal expressivity and face-to-face self-disclosure, demonstrating a correspondence between first impressions formed online and those formed face-to-face. These findings have been replicated to some degree by Hall, Pennington, & Leuders (2014) who found that strangers could accurately estimate extraversion, agreeableness, and conscientiousness from Facebook profiles alone. Similarly, Back et al (2010) found that Facebook profiles reflected actual personality characteristics with no evidence of idealization.

The previously mentioned and psychologically oriented social identity model of deindividuation effect (SIDE) theory (e.g., Spears, Lea, & Lee, 1990; Lea & Spears, 1991, 1992; Spears & Lea, 1994; Postmes, Spears, & Lea, 2000; Douglas & McGarty, 2001; Spears, Lea, Corneliussen, Postmes, & Haar, 2002; Postmes, Spears, Sakhel, & de Groot, 2001; Sassenberg & Boos, 2003; Rogers & Lea, 2005; McEwan & Zanolli, 2013; Spears & Postmes, 2013) privileges the assessment of relational markers of identity in the study of mediated interaction. Again briefly, SIDE theory posits that when group identity is salient, an individual communicator will be relatively deindividuated and more likely to follow and attribute group behavioral norms. Conversely, when self-identity is salient, individual communicators will be more likely to contest or flout social interactional norms and attribute individual responsibility to symbolic actions. A

variety of supporting evidence (and some problematic evidence) has been gathered for SIDE theory in the context of computer-mediated communication, but the biggest drawback, as Walther & Parks (2002) point out, is its reliance on group identity. Close, personal, intra-group communication is out of the purview of SIDE theory, though much mediated interaction, particularly in the age of ambient connection via ubiquitous social media, is devoted to interpersonal relationship maintenance among existing social ties.

In this study of mediated interpersonal communication and language, Joseph Walther's work, in particular, has been seminal. Walther has countered the early cues-reduced approaches while extending SIDE theory with his own theories of "hyperpersonal" communication and social information processing (SIP; e.g., Walther, 1992, 1993, 1996, 2005, 2006; Walther & Burgoon, 1992; Walther & Tidwell, 1995; Walther & D'Addario, 2001; Walther, Slovacek, & Tidwell, 2001; Walther & Parks, 2002; Tidwell & Walther, 2002; Ramirez, Walther, Burgoon, & Sunnafrank, 2002; Walther, Loh, & Granka, 2005; Antheunis et al, 2012). Broadly, Walther argues that, contrary to assumptions of the attenuation of 'social presence' brought on by a lack of nonverbal and social cues, computer-mediated communication, even in text-only situations, can be just as social and 'personal' as face-to-face interaction—sometimes more so, with lack of feedback contributing to a form of confirmation bias (the 'hyperpersonal')—though the mediated interactional process may take longer because text messages are generally shorter than vocal messages, requiring more conversational turns. He criticizes earlier theoretical perspectives for assuming a one-to-one correspondence between the presence or availability of affective cues and their use and interpretability, and also for assuming that such codes are monotonic, "e.g., increases in close proximity, gaze, and touch always mean intimacy and never mean threat"

(Walther, 2006, p. 464). Nevertheless, Walther states flatly that “information is information and [...] it can be expressed through a variety of modalities” (ibid, p. 466-467).

Unlike many others, Walther’s assumptions here are more overtly aligned with cybernetic theory’s definition of ‘information’ as something necessarily ‘new’, comprising novel signals on a consistent background. But, as will be discussed in the second half of this chapter, the contention that a signal’s content (as ‘meaning’) is neatly separable from its form (as ‘data’ or ‘information’) is problematic. The presence and function of social cues, as adapted to mediated interaction, are conceptualized as discrete, coded (though potentially multivalent and contextually dependent) messages and framed in terms of ‘feedback’ between ‘sender’ and ‘receiver’ (e.g., Walther, Slovacek, & Tidwell, 2001). However, even in analyses that rely heavily on quantifiable datapoints in the investigation of computer-mediated interpersonal communication (e.g., in the specific context of uncertainty reduction in impression formation versus face-to-face interaction), Tidwell & Walther (2002) acknowledge that the quality of cues is sometimes more important than the quantity. All such cues in digital and social media, however, are inevitably investigated as text-based, and understood as ‘paralinguistic’ ‘metacommunication’, even when the focus of investigation is chronemics or, on the rare occasion, when non-textual, visual cues are investigated in relation to the ‘primary’ verbal messages (e.g., Walther, Slovacek, & Tidwell, 2001). More recently, a growing interest in the pragmatics of digital interaction has pointed away from the strictly verbal and textual processes and functions of digitally mediated interaction.

2.2.5 Pragmatics & Functions of Networked Interpersonal Interaction

As we have seen, there is more to digitally mediated interaction than the strictly (and relatively easily quantifiable) verbal. The breadth of this area of research, in general, and the relations among the wide variety of ‘para’-linguistic, ‘meta-‘communicative, and ‘nonverbal’ phenomena available in text-only interaction, specifically, points to a rapidly evolving understanding of online, digital, and textual interaction in relation to face-to-face interaction and more conventional understandings of human communication generally. The richly multimodal character of contemporary interaction will require investigational methods less bound to linguistic formalisms.

This argument is not novel. Androutsopoulos (2011) provides a concise critique of conventional linguistic methods in the study of digital media interaction (in terms of syntactics, semantics, and pragmatics), which tend to rely on the quantification and comparison of linguistic and discursive variation. Such perspectives have tended to be limited by unimodal and usually monolingual focus, as well as a reliance on linguistic (or paralinguistic) variables and pre-defined independent variables that exclude variables not easily operationalized in relation to language. Interaction in the contemporary hybrid media ecology resists being contained in such small boxes since in such environments “language comes integrated in visually organized environments, verbal exchanges tend to be more fragmented and dependent on multimodal context, and meaning is constructed through the interplay of language and other semiotic means” (279). Furthermore, “[t]he preference for clear-cut social variables such as gender and age may reflect scholarly convention rather than the categories that are relevant to participants in online

communication” (280).¹⁶ In the 21st century, when ‘writing’ has, nearly uniformly, become ‘typing’, and the majority of that ‘writing’ is ‘personal’ versus ‘formal’, Basso’s (1989) call for an ‘ethnography of writing’ appears both prescient and quaint—quaint in that his distinction between ‘personal’ and ‘formal’ letters is far less easy to apply to the wide variety of writing functions in daily use today; prescient in that the need for a better understanding of the forms, functions, and especially the constitutive social and cultural influences on writing practices is more crucial than ever (not in the least for those tasked with the teaching of writing). But despite a growing research interest in mediated interaction that matches the expansion of new and digital media, the methods of investigation of interactional technologies, more of which are bound to practices of writing (or typing) than ever before, have largely remained confined by linguistic and semiotic assumptions (e.g., Herring, Stein, & Virtanen, 2013). The durability of many of these assumptions can be traced back to the theoretical separation of ‘oral’ and ‘literate’ cultures, which gained new life as networked communications, which require the skills of literacy but remediate oral cultural forms, became more widely available.

This ‘return to orality’ has led to fears of de-personalization, social destabilization, and other related and predictable waves of hand-wringing that inevitably accompany any technological development (especially in communication technology). Nevertheless, Hogan &

¹⁶ In contrast, Androutsopoulos develops a Bakhtinian “heteroglossic” perspective to “examine contemporary new media environments as sites of tension and contrast between linguistic resources, social identities, and ideologies” (283). In this specific case, ‘heteroglossia’ is fairly narrowly operationalized as the intermixing of linguistic identities (*viz.*, English, Croatian, and Bavarian German) that, while transcending some of the limitations of previous CMC research, may be difficult to apply in monolingual environments where ‘heteroglossia’ is understood more broadly in terms of linguistic-(sub)cultural and stylistic variation (see, e.g., Tagg, 2016). Furthermore, this approach seems to do little more than point beyond a reliance on language toward a wider understanding of multimodal interaction. For another Bakhtinian perspective on the multimodal heteroglossia of online discourse, see Akkaya (2014).

Quan-Haas (2010) have sifted out a few generalizations about digital discourse from the now well-established field, including that:

- Strong, intimate social relationships online, tend to be strong, intimate relationships offline, and
- People who tend to communicate more online also tend to do so offline.

These general findings point to growing agreement that the distinctions between ‘text’ and ‘speech’, ‘orality’ and ‘literacy’, and ‘online’ and ‘offline’ are of little practical value in the contemporary hybrid-mediated technosocial milieu. Nevertheless, much research in the sociolinguistic vein on mediated interaction continues to be framed, implicitly or explicitly, in comparison with face-to-face/oral communication. However, such study is now increasingly made in terms of comparative modes of ‘conversation’ (e.g., Herring, 2010b; Thurlow & Mroczek, 2011, introduction; Tannen, 2013) rather than some form of judgment about how mediated interaction pales in comparison to ‘natural’, face-to-face interaction (though see Park & Cameron, 2014, and, of course, Turkle 2011 & 2015). As should be apparent, this shift to mediated interaction has brought attention to phenomena that in offline contexts have historically fallen within the fuzzy borders of pragmatics, for example, attention to the rich range of options for affective and emotional communication in digital discourse (e.g., Byron & Baldridge, 2007; Hancock, Landrigan, & Silver, 2007; Harris & Paradice, 2007; Kwon, Kim, & Kim, 2013; Choi & Toma, 2014; Janssen, IJsselsteijn, & Westerink, 2014). Interactional pragmatic perspectives build upon and complement a long line of investigation into the effects and ‘uses and gratifications’ of new media technologies. While researchers have largely abandoned limited and myopic technologically deterministic positions about the social and psychological effects of

technology use,¹⁷ investigators continue to explore the interplay between online and offline interaction and the ways in which different forms of mediation (i.e., different technologies and combinations of technologies) affect social interaction (e.g. Katz & Aakhus, 2002; Matei & Ball-Rokeach, 2002; Litt & Hargittai, 2014) and psychological functions (e.g., Bargh & McKenna, 2004; Li, Shi, & Dang, 2014; Petrovčič & Petrič, 2014).

Early uses and gratifications studies of the internet focused on comparing internet usage with ‘old’ media, such as the telephone and television, and describing the evolving relationships among these new and old media (e.g., Dimmick, Kline, & Stafford, 2000; Flanagin & Metzger, 2001; LaRose & Eastin, 2004; and more recently Ramirez, Dimmick, Feaster, & Lin, 2008; Ku, Chu, & Tseng, 2013). As digitally networked communication technologies have become more firmly embedded in common daily communication practices, such study has generally shifted to why and how particular media are used for what purposes, including email (e.g., Rowe, 2011), instant messaging (e.g., Dolev-Cohen & Barak, 2013), social network sites (e.g., Raacke & Bonds-Raacke, 2008; Park, Kee, & Valenzuela, 2009; Zhao & Rosson, 2009; Andreassen, Torsheim, & Pallesen, 2014; Bónson, Escobar, & Ratkai, 2014; Krause, North, & Heritage, 2014), or some comparison of these (e.g., Quan-Haase & Young, 2010). Such applications of uses and gratifications theory are part of broader shift toward the investigation of digital media effects and functions, such as information-acquisition (e.g., Ramirez, Walther, Burgoon, & Sunnafrank, 2002; Tidwell & Walther, 2002; Luo & Remus, 2014) or social sharing (e.g., Choi & Toma, 2014), including the functions of specific media, such as blogs (e.g., Rutten, 2014), email (e.g., Habil, 2010; Kirkgöz, 2010) or even the functions of media subcomponents, such as email signatures (e.g., Sherblom, 1988; Rains & Young, 2006; Rains, Tumlin & Knapp, 2009),

¹⁷ However, see e.g., Bodomo & Lee’s (2002) interesting discussion of language changes as related to developments in the usage of communication technologies.

IM away messages (e.g., Baron, Squires, Tench, & Thompson's, 2005; Nastri, Peña, & Hancock's, 2006), and nicknames or pseudonyms (Lindholm, 2013). This has included the pragmatic functions of emoticons (e.g., Walther, 2006; Markman & Oshima, 2007; Provine, Spencer, & Mandell, 2007; Garrison, et al, 2011; Vandergriff, 2013) and punctuation (e.g., Ong, 2011; Kalman & Gergle, 2014), along with a few Hallidaen-influenced systemic-functional approaches to digital media and mediated interaction (e.g., Goutsos, 2005; Dai, 2009; Kofod-Peterson & Wegener, 2010; Sherratt, Sher, Williams, & Gameson, 2010).

The relational and interactional functions of social media have been the object of particular scrutiny (e.g., Walther, 1992; Geisler et al, 2001; Pigg et al, 2014), such as Bryant, Marmo, & Ramirez's (2013) discussion of the relational functions social network sites, and related research on Facebook (e.g., Fox, Osbourn, & Warber, 2014; C. Lee, 2011), Orkut (e.g., Das, 2010), Twitter (e.g., Java et al, 2007; Honeycutt & Herring, 2009), YouTube (e.g., Boyd, 2014), and instant messaging (e.g., Darics, 2010; Kulkarni, 2014), as well as voice and video interaction over the internet (e.g., Kappas & Krämer, 2011; Jenks & Firth, 2013) and mobile phone communication, generally (De Gournay, 2002; Kasesniemi & Rautianen, 2002; Ling & Yttri, 2002; Taylor, 2005). The latter points to a growing awareness of the importance of context in mediated interaction (see also Jacobson, 2007; Tien, 2010), a significant departure from earlier cyberstudies assumptions of 'disembodied' interaction in 'cyberspace'. The emphasis on context is similarly indicative of the growing interest in digital media pragmatics (e.g., Vandergriff, 2010; Georgakopoulou, 2011b; Herring, Stein & Virtanen, 2013). This includes, as should be expected, attention to the pragmatic aspects of specific media, such as email (e.g., Heyd, 2008; Menchik & Tian, 2008; Severinson-Eklundh, 2010; Dürscheid & Frehner, 2013), chat (e.g., Blyth, 2013; Paolillo & Zelenkauskaitė, 2013), IM (e.g., Baron, 2013), SMS (e.g., Thurlow &

Poff, 2013), mobile phone communication (e.g. Ling & Baron, 2013), and blogs (e.g., Kouper, 2010), but also the application of specifically pragmatic theoretical and methodological approaches to digital media interaction, such as neo-Gricean theories of meaning (e.g., Howell-Richardson, 2010), the chronemics and proxemics of mediated interaction (e.g., Döring & Pöschl, 2009; Kalman & Rafeili, 2011; R. Jones, 2013a), inference and relevance (e.g., Olateju & Adeleke, 2010; Yus 2010, 2011, 2014, in press; Herring, 2013; Scott, 2015), practices of address (e.g., de Oliveira, 2013), apology (e.g., Harrison & Allton, 2013), deception (e.g., Heyd, 2008 & 2013; Gill, 2013; Hancock & Gonzales, 2013;), and a various body of research applying speech act theory and theories of performativity to mediated interaction (e.g., Twitchell & Nunamaker, 2004; Twitchell et al, 2004; Natri, Peña, & Hancock, 2006; Drenser & Herring, 2010; Carr, Schrock, & Dauterman, 2012; Virtanen, 2013a & b).

The investigation of media functions—even when approached in different terms, such as ‘affordances’ or ‘uses’—is strongly bound to pragmatics, as forms of mediated interpersonal interaction, typically, as shown above, described in terms of and based on the assumptions of discourse as (socio)linguistic (or at least, language-based) communication. As with earlier struggles to define the term ‘pragmatics’ (e.g., Levinson, 1983), new or digital media pragmatics has faced ambiguity in relation to scope, range, and methods. Herring, Stein, & Virtanen (2013) attempt to generally delimit *The Pragmatics of Computer-Mediated Communication* in relation to the standard division of the ‘pragmatic’ from the ‘syntactic’ and ‘semantic’ combined with “perspectives from classic pragmatics, discourse pragmatics, interactional linguistics, sociolinguistics, communication, rhetoric, and other (sub)disciplines in the academic study of language” (p.15)—in what seems to be an attempt to encompass the interactional within the traditional tripartite semiotic boundaries (discussed in more detail below).

Yus's (2011) *Cyberpragmatics* presents an explicitly 'pragmatic' approach to internet communication in this vein relying heavily on Sperber & Wilson's relevance theory¹⁸ to focus on the ways in which people use the affordances of internet and social media technologies to generate "mutual manifestness" and enact shared "cognitive environments." While welcomed in its emphasis on the pragmatics of mediated interaction, Yus's 'cyberpragmatics', like Herring, Stein, & Virtanen (2013), remains bound to conventional semiotic and linguistic assumptions that can struggle to accommodate the nonverbal except as 'paralinguistic metacommunication'. One result of this insistence on linguistic assumptions and methods is the continuing challenge of clearly classifying forms of new and digital media interaction, which, as seen above, typically base interactional classifications upon their functionality in particular media technologies. This reflects a general bias in the field of new media research that continues to frame computer-mediated interaction as something *different*—interactional behavior on or of a different order—based on the assumption that technological mediation, in and of itself, makes such communication different and distinct from 'unmediated', 'face-to-face', and 'oral' interaction—much as 'paralanguage' and 'metacommunication' have been understood as different from or of a different order than the privileged linguistic 'message', as 'text' to 'context'. Consistent with this assumed and foregrounded 'difference' is the explosion of medium-specific research into the linguistic and the pragmatic as enumerated at the beginning of this chapter. Relatively few investigators seem interested in the functional (as opposed classificatory) consistencies between

¹⁸ Though at times Yus seems to play fast and loose with Sperber & Wilson's (1995) technical definition of relevance, for example when discussing investigations of the 'relevance' of search engine results. More technically, Yus seems to conflate what Floridi (2011) distinguishes as *s-relevance* (system-based or causal relevance, in the context of information retrieval systems) and *a-relevance* (agent-based, epistemic relevance).

mediated and unmediated interaction¹⁹, or the fundamental character and inescapable presence of the ‘paralinguistic’, the ‘metacommunicative’, and the ‘*contextual*’. After all, as Scollon & Scollon remind us, discourse, being inherently interactional and ‘pragmatic’,

is technologized through a very wide range of material supports and extensions from the structure of the built environment and its furniture to the media by which communication may be moved across the distances of time and space such as printed texts, pictures, microphones, telephones, video and audio conferencing systems, email or other digital electronic systems. (Scollon & Scollon, 2004, p. 4)

To abstract these elements and inherent features of communication in a narrow analytic focus on language as the primary, if not sole, means (or structure) of symbolic action, is to abandon the richness of social interaction, a loss that simply cannot fully account for symbolic action broadly nor the actual use of the specific technologies and interpenetrating ensembles of technologies through and with which interaction is practiced and performed every day. The untenable and limiting binaries (e.g., ‘orality’ and ‘literacy’, ‘online’ and ‘offline’, ‘verbal’ and ‘nonverbal’—as well as ‘quantitative’ and ‘qualitative’, ‘descriptive’ and ‘interpretive’) that continue to plague the study of digital media, and communication more generally, are rooted in the historical connections among (structuralist) linguistics, semiotics, information theory, and cybernetics. A review of these roots and their relations should help to clarify the larger methodological issues and connect them with the preceding review of the research on digital interaction.

¹⁹ There are, of course, exceptions. Deborah Tannen (2013), for example, has explicitly argued since the 1980s that, “I regard ‘text’ and ‘talk’ not as two separate entities—text as written language and talk as spoken—but rather as ‘overlapping aspects of a single entity’: discourse. [...]he word ‘discourse’ is invaluable as a corrective to the tendency to think of spoken and written language as separate and fundamentally different” (p. 99).

2.3 Communication as Language as the Exchange of Information

The conventional study of communication (including computer-mediated communication) relies upon assumptions of Ferdinand de Saussure's (1966) theory of semiology, which broke with earlier philological and rhetorical approaches to the study of language with a focus on the structure of signification. For Saussure, communication, for which language provided the paradigmatic model, was envisioned as the exchange of signs (a 'sign' being understood as the combination of 'signifier' and 'signified'). Saussure's model of communication comprising the sender, the message, and the receiver, developed at the turn of the 20th century, clearly reflects what some 40 years later would become the standard 'transmission model' of communication. Claude Shannon's mathematical theory of communication (Shannon & Weaver, 1963/1949), the founding document of what became known as information theory,²⁰ can be seen as, in essence, a focused reduction of Saussure's model to one-way transmission with an expanded set of components: 'sender', 'message', and 'receiver' become 'information source', 'message', 'transmitter', 'signal', 'noise', 'receiver', and 'destination'. Warren Weaver, Shannon's translator from the mathematical to the somewhat less technical, is explicit in his definition of communication as "all the procedures by which one mind may affect another," which "involves not only written and oral speech, but also music, the pictorial arts, the theatre, the ballet, and in fact all human behavior" (ibid., 3). Weaver makes this bold, comprehensive claim for information theory even while reducing—or at least anchoring—the "problem of communication" to the accuracy of signal transmission. After all, the semantic—

²⁰ However, "...since [Shannon's mathematical theory of communication] is a theory of information without meaning, and information minus meaning = data, *mathematical theory of data communication* is a far more appropriate descriptor than *information theory*" (Floridi, 2004, p. 52). Said another way, Shannon's theory is 'without meaning' because it does not define 'information' as such but provides a measure of the *amount* of 'information' (as negative entropy) or, technically, the *information capacity* of a communication channel.

Saussure's emphasis—can only become a problem if the signal carrying meaning in coded information is accurately received.

Where for Saussure successful communication requires a shared meaning for the signs being exchanged, for information theory accurate transmission requires a shared code in which messages can be encoded and *informed* to be transmitted via a signal utilizing a particular channel. Information theory emphasizes the inherent quantifiability of any potential message, regardless of the specific 'code' in which the message's 'meaning' is 'encoded'. The early information theorists were thereby able to go beyond (in a meta-*metapherein*) Saussure's outline of message exchange by separating 'information' from 'meaning'. Where meaning is slippery, a matter of social convention and contextual interpretation, information is defined as a measure of statistical probability, of uncertainty: "the information carried by a message [is] essentially the negative of its entropy, and the negative logarithm of its probability. That is, the more probable the message, the less information it gives" (Wiener, 1950, p. 21). In this way, for early information theorists, information is, by definition, 'new', 'different': 'information' names foreground changes in relation to background consistency—"a difference that makes a difference" in Bateson's (1972) famous phrase. 'Information', from this perspective, is very different from—in fact, the *opposite* of—"data", a situation directly related to the intimate connection between 'information' and 'meaning'. This emphasis on information as constituted and defined by the 'new' is also directly related to the continued fetishization of novelty in 'new media' studies.

By conventional definition, 'information' is 'data' made meaningful by relation to a 'code'. And the 'code'—regardless of its form—is what makes all information (at least

theoretically) quantifiable. In a code comprising a necessarily finite set of symbols,²¹ the probability that any given letter, for example, will follow another, is statistically determinable. All messages, then, are, by definition, quantifiable in terms of the amount of information they encode, defined by the probability (as certainty vs uncertainty) of each sequential symbol-unit in the message, and therefore capable of being encoded as a string of binary symbols. Hence, “all communication is essentially digital” (Shannon & Weaver, 1963, p. ix)—a highly sophisticated demonstration of the possibilities of binary encoding that have been known for centuries, at least (see Cherry, 1978, chapters 2 and 6), combined with the realization that binary encoding can encompass codes within codes within codes, etc.

Building on early information theory, Norbert Wiener’s (1950, 1963) theory of cybernetics incorporates processes of ‘feedback’ among senders and receivers. For Wiener (who was also instrumental in the early development of information theory), cybernetics was concerned with “the essential unity of the set of problems centering about communication, control, and statistical mechanics,” and was defined as “the entire field of control and communication theory whether in the machine or in the animal” (Wiener, 1961, p. 11). ‘Control’ in this sense reflects, in a glass of different terminology with a slightly different focus, the perspective of much classical rhetoric. In fact, Wiener takes the term ‘cybernetics’ from the Greek *kybernetes*, generally translated as ‘steersman’ and evoking a sense of manipulation and control, directly from Plato’s *Phaedrus* dialogue where Socrates uses this term to define by analogy *rhêtôriké* (from the root *rhéo* meaning ‘flow’) in the earliest known use of the term ‘rhetoric’. The emphasis on the relationship between communication and control in cybernetics

²¹ A code comprising an infinite set of symbols could not be informative because there would be no way to differentiate the novel ‘information’ (‘the difference that makes a difference’) from the background ‘data’.

can be traced back to the power of the orator in classical rhetoric, in which the five canons of rhetoric (invention, arrangement, memory, style, and delivery) are combined in a *techne* (both *science* and *art* as method) that, when properly practiced, allows the speaker to sway, i.e. ‘control’, the minds of audiences.²² Control (necessarily accomplished through communication), then, is the effect of the accurate encoding (i.e., invention, arrangement, memory, style), successful transmission (i.e., delivery), and accurate decoding of messages:

When I communicate with another person, I impart a message to him, and when he communicates back with me he returns a related message which contains information primarily accessible to him and not to me. When I control the actions of another person, I communicate a message to him, and although this message is in the imperative mood, the technique of communication does not differ from that of a message of fact. Furthermore, if my control is to be effective I must take cognizance of any messages from him which may indicate that the order is understood and has been obeyed. (Wiener, 1950, p. 16)

Given the fact that any given message, of any given length, in any given form (i.e., medium, channel), is reducible to digital encoding, it makes no difference whether the ‘message’ being transmitted and received is a temperature reading in a thermostat, a sensory gradient in a living cell, a radar signal tracking a missile, a nerve impulse in a brain, or a verbal message from one person to another or others. Effective and successful communication—for information theory and cybernetics as it was for classical rhetoric once the *techne* has been developed—is a problem, at base, of accurate reception. For cybernetics, it made no difference whether the ‘sensory organs’ of the ‘receiver’ were biological or mechanical—the two being essentially

²² The cybernetic emphasis on control as a function of effective communication can be read, in particular, as the fruit of Renaissance Ramist rhetoric which, at the beginning of the theoretical development of Enlightenment science, divorced rhetoric (as style and delivery) from dialectic or what became science (invention, arrangement, and memory). This division also thereby set the stage for the naturalization of the computer ‘data storage’ as ‘memory’ metaphor that is so common today as to be unfortunately almost unremarkable.

equivalent at the level of communication processes, and the human animal thereby constituting nothing other than a “special sort of machine” (Wiener, 1950, p. 79), a behavioristic complex of effectors and receptors. Cybernetics as the science of command and control, “whether in the metal or in the flesh, is a branch of communication engineering, and its cardinal notions are those of message, amount of disturbance or ‘noise’ [...] quantity of information, coding technique, and so on” (Wiener, 1963, p. 42). ‘Information’, from this perspective (without abandoning the mathematical definition of probabilistic negative entropy), is simply

a name for the content of what is exchanged with the outer world as we adjust to it, and make our adjustment felt upon it. [...] To live effectively is to live with adequate information. Thus, communication and control belong to the essence of man’s inner life, even as they belong to his life in society. (Wiener, 1950, p. 17-18)

The subject of cybernetics, therefore, “is not events and objects but the *information* ‘carried’ by events and objects (Bateson, 1972, p. 401; original italics). Moreover and therefore, “society can only be understood through a study of the messages and the communication facilities which belong to it” (Wiener, 1950, p. 16).²³ Cybernetics, while importantly emphasizing the interactional and communicational nature of life and society, equates communication with the exchange of messages, and equates ‘message’ with ‘information’ accurately ‘transmitted’ and/or ‘received’.

These broad and encompassing definitions of ‘communication’ and ‘message’ are matched by Wiener with an equally broad, and thoroughly imbricated, notion of ‘language’:

²³ “The universe, message-plus-referent, is given pattern or form—in the Shakespearean sense, the universe is *informed* by the message; and the ‘form’ of which we are speaking is not in the message nor is it in the referent. It is in the correspondence between message and referent” (Bateson, 1972, p. 408; original italics).

Language, in fact, is in one sense another name for communication itself, as well as a word used to describe the codes through which communication takes place. [...] Birds communicate with one another, monkeys communicate with one another, insects communicate with one another, and in all this communication some use is made of signals or symbols which can be understood only by being privy to the system of codes involved. (Wiener, 1950, p. 74)

Wiener acknowledges that human language is to be distinguished by its complexity and high level of arbitrariness—animal ‘languages’ are said to primarily convey ‘emotional content’—but the difference is one of degree rather than kind. He distinguishes human, ‘ordinary spoken language’ by three concurrent but distinct levels. The first level is the *perceptual* (or technical), involving the ear, the brain, and the phonetic aspects of language (the ‘receptor’ mechanisms). The second is the “far more complex” *semantic* level (the level of ‘meaning’). The third level is the *behavioral* (or effective), which, while being the only aspect of language human beings share with animal ‘languages’, also “represents a translation partly from the semantic level and partly from the earlier phonetic level” as “the translation of the experiences of the individual, whether conscious or unconscious, into actions which may be observed externally” (Wiener, 1950, p. 81). This would include, under the aegis of ‘feedback’, not only nonverbal communication, broadly, but all indications that and of how a message has been received or the spirit in which a message is to be taken (i.e., ‘metacommunication’; Bateson, 1972). It is the semantic level, however, bridging the perceptual and the behavioral, which is argued to be the distinguishing characteristic of human language and its symbolic enactment and interpretation of meaning. From the perspective of cybernetics, then, as a theory of messages and of communication and control, “semantics defines the extent of meaning and controls its loss in a communications system” (Wiener, 1950, p. 94).

This equation of language and communication as a symbolic (code) system—and often, despite denials, the effective, if only formal, equation of ‘information’ and ‘meaning’, as that last quote indicates—developed in information theory and cybernetics found a more rigorous expression in the more focused, disciplinary study of language in Chomskyan transformational and generative grammars (Chomsky, 2006, 2002/1957).²⁴ Chomsky’s formalist approach to the study of language is sometimes described in terms of ‘psycholinguistics’ (a subdiscipline that includes far more than generative grammar, to be sure) in order to emphasize the relation of “deep” linguistic structure to cognitive structure. Consistent with Saussure’s distinction between *langue*, or language as a system, and *parole*, or language in situated, practical use, Chomsky limited the study of language proper to the study of language as a syntactical system—a code-system of structural relations—banishing language in practice to the basement of individual ‘performance’, which was defined as the *use of* the code as opposed to ‘competence’ or the *knowledge of* the code.²⁵ Similarly, questions of ‘meaning’ (i.e., semantics) were judged to be secondary to the syntactical structures in which meaning is encoded because the semantic is derived from (encoded in) the syntactical; therefore, the proper study of language (as a system) is argued to be the study of (“deep”) syntactical structure. Where Saussure maintained that language as a sign system could be described apart from the “external data” of concrete activity (though importantly insisting that *langue*, ultimately, could not be divorced from *parole*), for Chomsky and his followers any study of ‘performance’, or ‘language’ outside of the study of

²⁴ Chomsky would almost certainly object to this relation arguing 1) that generative grammar is purely descriptive, and 2) having characterized the cybernetic emphasis on ‘control’ in language and communication as ‘disturbing’—a judgment with which it is easy to sympathize.

²⁵ Chomsky (2006, p. 79-80), however, argues that Saussure’s approach is “entirely inadequate” because it is limited to the description of “surface structure” and does not address the underlying “deep structure” of language as a cognitive system upon which “competence” is based and through which it is enacted in “performance.”

syntactical relations is not really the study of ‘language’ at all—or is, at best, a chasing of “surface” shadows cast across the cave wall by the “deep” code. From this orientation, the study of linguistics is thereby understood as, fundamentally, a form of cognitive science—the study not of meaning but of encoding, not of content but of form (a binary characterization that leaves little room for dynamic processes or acts of communication beyond ‘sending’ and ‘receiving’).

These divisions represented a significant break from not only the classical philological and rhetorical studies of language, but also from the functional and anthropological linguistic approaches of the first decades of the twentieth century and earlier. The relationship between the psycholinguistic model of language as a system of symbolic relations and the standard ‘transmission’ model of communication reflected in the work of both Saussure and information and cybernetic theory is clear in standard textbook definitions of communication, such as:

Communication: the transmission of information, ideas, emotions, skills, etc. by the use of symbols-words, pictures, figures, graphs, etc. (Berelson & Steiner, 1964, p. 527).

The relation between ‘information’ and ‘language’ had only intensified with the development of communication as a disciplinary and scientific research enterprise. Even recent definitions clearly show the cybernetic ghosts that continue to haunt the study of communication—largely thanks to the influence of cybernetics and information theory on the early pioneers of Communication Studies (e.g. Schramm and Berelson) as a distinct field of social scientific research. Take, for example, this more far more recent definition, which parallels what is still to be found in most entry-level communication textbooks:

Communication = def. Transmission of content X from a sender Y to a recipient Z using an expression W and a medium Q in an environment E with a purpose/function F.
 [...C]ommunication in the widest sense is *transmission of anything from anything to anything with the help of anything (expression/medium) in any environment with any purpose/function*. (Allwood, 2002, p. 7; original italics)

While the differences among Chomsky's privileging of syntactical structure and Wiener's three levels of language/communication (perceptual, semantic, and behavioral) are readily apparent, what they have in common is the basic assumption that language is, in essence, a code-system that enables the linear exchange of information in discrete messages. Since language is also assumed to be the fundamental and paradigmatic form of human communication, human communication itself is understood as a system of interrelated codes anchored in the syntactical structures of (spoken) human language, which is itself deeply intertwined with the 'codes' of thought, cognition, and neurobiology.

But there is a problem here. Human language is *not* a simple code. The alphabet is a code. But written language does not encompass human language—written language is an abstraction from the spoken, a fact obvious enough when we recognize that most human languages have never had a written form. While the phonetics of a language can be studied *as* a code, this is precisely because phonetic description is a relatively arbitrary abstraction of language²⁶, not language itself (Port, 2007). A word (to say nothing of the utterance in which the word is necessarily embedded) is certainly a symbol in that it 'points to' or 'stands for' something ('means' something) beyond itself, but it is far from a fixed coded signal. As Halliday argues,

human language evolved by putting between the meaning and the sound a formal level of grammatical structure, because it is the grammatical structure which allows the different functions to be mapped onto one another in a sort of *polyphony*. I use this metaphor because in polyphonic music the different melodies are mapped onto one another so that

²⁶ An abstraction that is, furthermore, dependent upon symbolic manipulation. There is no small irony in the fact that the study of spoken phonemes is dependent upon the symbolic manipulations of written language—an irony which takes nothing away from such investigation and, in fact, speaks directly to the power of symbolic coding.

any particular chord is at one and the same time an element in a number of different structures. (Halliday, 1978, p. 58)

As more than forty years of cognitive linguistics has amply demonstrated,²⁷ any given word (i.e., ‘unit of information’) is inherently polysemous and contextually dependent: syntax cannot be profitably or validly divorced from semantics. A word, as a sign, is more than a quantifiable unit of ‘information’.²⁸ My aim herein is not to refute or even challenge the deep entanglement of linguistic, conceptual, and cognitive structures, nor to argue against the value of understanding communication in terms of ‘codes’, but to argue that *language*—the most complex form of communication known—particularly as a formal system of ‘encoded information’, may not be the best fundamental model for communication more broadly. As I will argue, information is not just ‘represented’ (or ‘re-presented’) but *constituted* by the ‘code’—and the ‘information’ available in a communicative situation or interaction is inevitably constituted by a variety of codes simultaneously, some of which are shared by the involved interactants, some of which are only *assumed* to be shared, and some of which are not shared at all and are potentially incompatible, if not contradictory.

Part of the problem here is terminological. Even the word ‘code’—being a *word*—is itself polysemous, carrying several different overlapping senses which are too often uncritically conflated. As Umberto Eco (1987) has pointed out, a code can indicate “both a syntactic system

²⁷ Cognitive linguistics is just one possible example. A wide variety of contemporary dynamic and functional approaches to language challenge formalist assumptions. See, for example, Bickhard’s (2007) introduction to a special issue of *New Ideas in Psychology* dedicated to “modern approaches to language”; Hanks’ (2014) introduction to the third of three special issues of the *Journal of Pragmatics* dedicated to “emancipatory pragmatics”; and Fowler & Hodges’ (forthcoming) introduction to another special issue of *New Ideas in Psychology* on ‘alternatives to code models for language’.

²⁸ As early as 1826, in his *Elements of Logic*, rhetorician Richard Whately (2008) defined a word (or a “term”) as “an act of *apprehension*” (p. 69, op cite McComiskey, 2015).

of purely differential units devoid of any meaning [...] and correlation of two series of elements systematically arranged term to term or string to string, the items of the first standing for the second” (p. 177). Halliday (2007) identifies three distinct uses of the word ‘code’:

1. As a *cipher*: establishing a one-to-one correspondence between the elements of two sets of symbols;
2. As a set of *rules*: derived from the French *code*, meaning ‘universal law’ (*viz.*, ‘code of chivalry’, ‘code of Hammurabi’, ‘codes’ of ethics, or Rousseau’s ‘common code’ of the social contract) or general principles of structural-syntactic relations (i.e., *syntax*); and
3. As a set of *semiotic relations*, understood as “a regulative principle [...] which selects and integrates relevant meanings, forms of realizations, and evoking contexts” (*op cit* Bernstein, 2003), e.g., the ‘social codes’ of cultural studies: a ‘social semiotic’ or principle of organization governing the choice of meanings by speaker and hearer/interpreter which “controls the semantic styles of the culture.” (Halliday, 1978, p. 111)

Information theory, cybernetics, and conventional linguistics, conflate the one-to-one ‘code’ of a cipher with the ‘code’ as a set of socially enacted meanings—the latter taken to imply the former—resulting in simplistic, reductive assumptions about the processes of human language and communication that are further conflated with (as being bound and ‘structured’ by) ‘code’ as a set of rules or structurally fixed syntactic relations. Such assumptions ignore the multiplicity and polysemy of the word (as a ‘sign’) and, consequently, the ways that the context

of signification constitutes both novel, foregrounded ‘information’ and background ‘data’ in actual, lived practice beyond the formal and discretely quantifiable.²⁹

Semiotic approaches to language would seem to be able account for the polysemic character of the sign as the raw material of communication, as well as for the multiplicity of codes and types of codes to which we are all subject. But the conflation of the three senses of ‘code’ has also troubled the history of semiotics as a field of study, often in direct proportion to its relation to information theory, cybernetics, and their common roots. The word ‘semiotics’ derives from the Greek for ‘sign’ (*sem*, the root of *symptom*) and implies ‘meaning’ (through the implication of indication—a ‘sign’ is a sign *for* or *of* something else). The history of the study of signs and sign systems reaches back to the Presocratic philosophers with important contributions from the Stoics and Epicureans, from St. Augustine, and later from John Locke,³⁰ among many others (see e.g., Eco, 1987; Oehler, 1987; Halliday & Hasan, 1989). Not only does semiotics, as a theory of signs, encompass linguistics, Eco argues that “the entire of history of philosophy could be re-read in a semiotic perspective” (1987, p. 109). The modern roots of semiotics, for example, include a robust 19th century German and English intellectual tradition in the philosophy and logic of signs and sign systems (e.g., Leibnitz, Babbage, Lovelace), roots shared with information theory and cybernetics. The equation of a ‘sign’ with a ‘message’ with a quantity of ‘information’ is both rich and ancient.

Saussure belongs to this tradition as well, but his *Course*, published eponymously from the collected and edited notes of his students, did not, in fact, comprise a fully worked out general theory of signs, only a “project” postulated as a future “semiology of communication”

²⁹ ‘Information’ being most typically and generally understood as ‘data + meaning’

³⁰ It is to Locke that the modern use of “*semiotik*” is typically credited.

that would encompass linguistics—language being one (very important) system of signification among many. Despite his current foundational eminence in communication textbooks, Saussure’s direct influence was not much felt until the publication of his original notes (Engler, 1974) leading to a “Saussure renaissance [that] began during the late seventies” and which entailed a series of subsequent misreadings and a “structuralist corruption,” via Lévi-Strauss, Hjelmslev, and Barthes “of Saussure’s authentic linguistic theory” (Krampen, 1987, p. 61; see also Stawarska, 2015). This misreading or ‘corruption’ was partially the result of a conflation of the senses of ‘code’ as semantic system, syntactic system, and cipher.

Saussure understood language as “the ensemble of signs, of the coupled sets pertaining to two coordinated universes (that of the signifier and that of the signified)” (ibid, p.70). For Saussure, as for the formalist grammarians, language (i.e. *langue*), is a code-system of symbolic relations in and through which communication is enacted. In classical information theory and conventional linguistics, the actual enactment of language or communication is of little relevance beyond the processes of encoding and decoding, and the simplicity of Saussure’s model of sign exchange lends itself to the interpretation of both linearity (of ‘transmission’) and the ahistorical and idealistic privileging of *langue* to the exclusion of *parole*.³¹ It is in this sense that Saussure is

³¹ Cf. Culler (1976, p. xiii): “In short, Saussure, Freud, and Durkheim renovated the social sciences by rejecting historical and causal explanations in favour of the study of interpersonal systems of norms.” Hodge & Kress (1988, p. 31) call this the ‘judgment of modern structuralist orthodoxy’. However, this is part of the ‘structuralist corruption’. In the *Course*, Saussure points out that language “is the whole set of linguistic habits which allow an individual to understand and to be understood [...] But this definition still leaves language outside its social context; it makes language something artificial, since it includes only the individual part of reality; for the realization of language, a community of speakers (*masse parlante*) is necessary. Contrary to all appearances language never exists apart from the social fact, for it is a semiological phenomenon. [...] But under the conditions described, language is not living—it has only potential life; we have considered only the social, not the historical fact [...], it is rather the action of time combined with the social force. If time is left out, the linguistic facts are incomplete and no conclusion is possible. If we considered language in time, without the

often negatively compared with Charles Sanders Peirce, whose semiotic theory is often understood to be more comprehensive than Saussure's semiology.³² Perhaps the biggest difference is that where Saussure depends upon a model of the linear exchange of signs (in which the cultural situation as *masse parlante* functions as an implicit set of formative and interpretive constraints), Peirce posits a triadic model that always assumes and requires active interpretation based upon social-historical as well as social-psychological factors, and a choice of potentially appropriate 'codes'. In Peirce's model, therefore, transmission and reception are less subject to 'noise' than to the multiple contextual and historical possibilities of applicable social 'codes'—which is precisely why Peirce's tripartite model of the 'sign' (as opposed to Saussure's binary model) has been foundational for the development of semiotics as the study of cultural 'codes'.

For information theory and cybernetics, however, all communication simply is encoded symbolic exchange (following Saussure's binary understanding of the 'sign'—and therefore 'unit of information'—as a cipher comprising a 'signifier' and a 'signified'). Therefore, for information theory and cybernetics, all 'language' is encoded symbolic exchange, and any coded symbolic exchange can be approached in the same way: as discrete messages comprising quantifiable information, whether in "animal or machine." Halliday (addressing 'code' at the level of a semantic system) makes this connection between information theory, semiotics, and language explicit: he argues that understanding "'language as a social semiotic' [...]" means

community of speakers [...], we would probably notice no change; time would not influence language. Conversely, if we considered the community of speakers without considering time, we would not see the effect of the social forces that influence language." (Saussure, 1966, p. 77-78)

³² The term *semiotics*, as opposed to *semiology* or *semiotic*, etc., was officially adopted by the International Association of Semiotic Studies in 1969; see Eco, 1987. For a contrasting account arguing the dominance of the Saussurean legacy over the "scattered" and "unsystematic," though "sharp and illuminating," work of Peirce, see Hodge & Kress (1988, chapter 2).

interpreting language within a sociocultural context,³³ in which the culture itself is interpreted in semiotic terms – as an information system, if that is the preferred terminology” (Halliday, 1978, p. 2). For structuralists such as Hjelmslev, Lévi-Strauss, and Barthes, language, as the dominant mode of human symbol exchange, serves as the paradigmatic form for *all* information exchange—consciously contesting both Saussure and Peirce’s insistence that language is but one system of signification among others (see e.g., Trabant, 1987; Eco, 1987; Krampen, 1987; Barthes, 1985/1967). Moreover, all semiotic and related approaches to the study of signs as discrete units of information have the tendency to conflate the different senses of ‘code’. The study of ‘representation’, for example, in diverse fields including cultural studies, critical theory, media studies, and visual rhetoric, draws heavily from semiotic theories, applying various levels of sophistication to the distinctions among the different senses of ‘code’, resulting in a variety of different (often unaddressed) assumptions about the discrete character of the ‘sign’ as a ‘message’ or unit of ‘information’ (which often has a further confusing relation to terms such as ‘data’ and ‘knowledge’, as well as ‘meaning’ as a product of ‘semiosis’).

To reiterate, in Peircean semiotics, a ‘sign’, specifically, is *that which can be taken as a sign* (Peirce, 1931-58; Eco 1976). In this sense, the vagaries of individual interpretation and the contingencies of social and historical context would seem to be built into the analysis of signs and signifying systems. Nevertheless, in practice, semiotic analyses tend, at least implicitly and often explicitly, to take language to be *the* paradigmatic system of signs. This is for the simple reason that since a sign is anything that is understood as a sign (understood as signifying or

³³ Kress (2010) explains that a “focus on sign-making rather than sign use is one of several features which distinguishes *social-semiotic* theory[s] from other forms of semiotics. In a social semiotic account of meaning, individuals, with their social histories, socially shaped, located in social environments, using socially made, culturally available resources, are agentic and generative in sign-making and communication” (p. 54).

‘standing for’ something else) within a differential hermeneutic of socially conditioned systems of symbolic relations, all signs and sign objects are inherently multiple in potentiality, inherently polysemous: all signs are ‘words’. But there is a problem with taking language, the most complex form of communication, as the basic, fundamental, paradigmatic form of communication:

[O]nce we have declared our master theory of investigation to be language we will find it extremely difficult to discover anything in nonverbal semiotic domains that is not already prefigured in language. In other words, we will only rediscover quasi-linguistic characteristics. [...] To apply a *reductio ad absurdum* to this problematic, we could ask what the haptic and olfactory equivalents are to noun phrases, present participles, the passive voice, and so on. We should avoid this kind of linguistic imperialism that blinds rather than enlightens. (Ruthrof, 2000, p. 22)

In the study of communication, if we take (spoken, human) language as a system of semantic relations structured by and within a system of formal syntactical relations—particularly if the syntactical relations are implicitly or explicitly understood in terms of a cipher: discrete signifier (‘unit of information’) to discrete signified (‘referent value’)—to be the paradigmatic form of all communication, we stack the deck in ways that constrain our understanding of communication to the syntactical encoding and decoding of meaning in a disembodied, immaterial system of floating signifiers that have no foundation or grounds in the lives of actual, breathing, feeling, commingling, and communicating human beings.³⁴ The danger applies, as well, to the uncritical application of ‘information’ in which ‘data’ is taken as a direct indication of ‘reality’ without attention to the representational and hermeneutical social structures by and

³⁴ Many postmodern theorists, e.g. Frederic Jameson or Jean Baudrillard, understand the problem (or problematic) of contemporary culture in very similar (and partially derived) terms: ‘surface simulations’ and signifying ‘turtles all the way down’ the infinite chain of arbitrary signification.

within which both ‘data’ and ‘information’ are constituted.³⁵ Some theorists, semioticians among them, have understood this problem and sought ways out of or around it.

Roman Jakobson, a linguist who became a preeminent semiotic theorist, attempted a grand synthesis of the Saussurean and Peircean traditions of the study of signs, while incorporating significant influences from information theory and cybernetics.³⁶ Jakobson’s theoretical synthesis was based on the foregrounding of language as symbolic social action—an attempt to understand language in all of its situated manifestations because “language shares many properties with some other systems of signs or even with all of them” (Jakobson, 1960, p. 351), and “it is impossible to isolate it from the rest of human behavior, the whole of this behavior being always SIGNIFICANT” (Eco, 1987, p. 112; original capitalization). Vital to Jakobson’s understanding of language as one important system of signification among many interrelated systems (a position that echoes George Herbert Mead’s claim that language is “just a *part* of a co-operative process,” Mead, 1934, p. 74, italics added) is that any system of signification is a social system: “any semiotic system is submitted to general semiotic laws and functions as a code; but such codes are also linked to specific communities (from village to ethnic unit) in the same way in which a language produces its subcodes linked to given professions or activities”³⁷ (ibid). According to Eco, it is precisely Jakobson’s emphasis on

³⁵ In artificial intelligence and the philosophy of information, this is referred to as the *symbol grounding problem*, see, e.g., Floridi (2011, chapter 6). See also, Ruthrof (2000) and Johnson (1990).

³⁶ “It is probable that Jakobson became definitely convinced of the possibility of a general semiotics when, having discovered the binary structure of phonological systems, he encountered the results of information theory. From this point on his references to the whole semiotic field became more and more frequent, and Jakobson’s influence on anthropologists (Lévi-Strauss) or psychoanalysts (Lacan) became more and more intense. This interdisciplinary conscience reaches its peak between the forties and the early fifties” (Eco, 1987, p. 113).

³⁷ e.g., situated sociolinguistic ‘registers’ or Bakhtinian speech genres

“language in action” that led him to give up trying to maintain a methodological distinction between a ‘code’ as a system of syntactical relations and ‘code’ as the cipher by which the elements of two systems of syntactical relations (i.e., the language system and the system of sociocultural meanings) were correlated: “The notion of a purely distinctive and differential system is a rather abstract one and could be considered in isolation only from the standpoint of an ‘algebraic view’ such as that of Hjelmslev”(Eco, 1987, p. 118). On the contrary, Jakobson argued that

Language is never monolithic; its overall code includes a set of subcodes, and such questions as that of the rules of transformation of the optimal, explicit kernel code into the various degrees of elliptic subcodes and their comparison as to the amount of information requires both a linguistic [i.e., humanistic, sociological, anthropological] and an engineering [i.e., mathematical/statistical/probabilistic, syntactical] examination. The *convertible code* of language, with all its fluctuations from subcode to subcode and with all the current progressing changes which this code is undergoing, is to be jointly and comprehensively described by the means of linguistics and [mathematical] communication theory [i.e., information theory]. (Jakobson, 1971, p. 574)

Jakobson was, nevertheless, clear about “the dangers of overestimating the statistical criterion as an independent tool,” or, in fact, *any* narrow, monolithic approach to the study of language and communication:

We have warned against uncritical transposition of mathematical designations and concepts into linguistics, but we must in turn give warning against a hypercritical purism which is prone to reject even such terms as “redundancy” as an alleged loanword from information theory, although this term and notion have actually been borrowed by mathematicians from the science of language, where they have been enrooted at least since Quintillian. (ibid, p. 596)

Regardless,

the logician's analysis of formalized superstructures requires a systematic collation with their natural fundament, subject to a strictly linguistic interpretation. A serious impediment in such a joint comparative study is the still persistent view of natural language as a second-rate symbolic system accused of a constitutional bias toward imprecision, vagueness, ambiguity, and opacity. [...] The variability of meanings, their manifold and far-reaching figurative shifts, and an incalculable aptitude for multiple paraphrases are just those properties of natural language which induce its creativity and endow not only poetic but even scientific activities with a continuously inventive sweep. Here, indefiniteness and creative power appear to be wholly interrelated. (ibid, p. 659)

Arguably, Jakobson's greatest weakness was his failure to recognize the different senses of the term 'code' which, given the above, we can clearly see to be conflated in these nevertheless far-sighted and perspicacious quotes. However, he did recognize that language was a signification system of a different order and maintained that, at the very least, "The relationship between the verbal pattern and the other types of signs may be taken as a *starting principle* for their grouping" (ibid, p. 658; my italics). This claim would seem to be indisputable since, as human beings, we can never 'get outside of' language. However, it is wise to keep in mind Ruthrof's warning against linguistic imperialism when linguistic structure (whether "deep" or "surface") is taken as a set of templates for all forms of signification, particularly when linguistic structure is understood as the symbolic exchange of discrete messages on par with units of 'information'.

The early models of 'information' (i.e., that which is transmitted, as for Saussure words are exchanged) were firmly rooted in the concerns of the telecommunications engineers who developed those models. Therein, 'information' is defined as a quantifiable construct based upon the probabilistic notion of negative entropy. When information is understood as a quantifiable

object (in terms of amount and clarity, or faithful representation in transmission), the ‘meaning’ that the message ‘contains’ is of little importance or relevance. And this is perfectly reasonable for telecommunications engineers—their task is to make sure that the message is transmitted faithfully, regardless of what was transmitted by whom to whom for what purpose. But, as Reddy argues in a seminal chapter, “As soon as people ventured away from the original, well-defined area of the mathematics, and were forced to rely more on ordinary language, the essential insight of information theory was muddled beyond repair” (Reddy, 1979, p. 304).³⁸

Analogous to the way that taking language to be the paradigmatic model of communication can limit our perspective to assumptions based on linguistic form, understanding all communication as the exchange of discrete units of information significantly limits our ability to understand the complexities of interaction, and even of the social-semiotic and shared conceptual systems that

³⁸ Even Gregory Bateson, who applied cybernetic theories to a wide range of social science investigations, recognized the limitations of information theory: “there is a continuous gradation [in communication forms] from the ostensive through the iconic to the purely digital. At the digital end of this scale all the theorems of information theory have their full force, but at the ostensive and analogic end *they are meaningless*” (Bateson, 1972, p. 291; emphasis added). For the sake of fairness, completeness, and clarity, however, it should be noted that this quote continues: “It seems also that while much behavioral communication of even higher mammals remains ostensive or analogic, the internal mechanism of these creatures has become digitalized at least at the neuronal level. It would seem that analogic communication is in some sense more primitive than digital and that there is a broad evolutionary trend toward the substitution of digital for analogic mechanisms.” For as forward thinking as Bateson was—and in some ways continues to be—this statement is undoubtedly a product of the wishful thinking that came with the BRAIN IS A COMPUTER/COMPUTER IS A BRAIN metaphor that the early cybernetics movement installed in Western scientific culture (Nyce, 1992), combined with a relatively primitive understanding of neurophysiology in the 1960s. The digital might be more accurately said to be the deeply ‘primitive’ underpinning of the analogical. Even neurons, to take Bateson’s example, are most definitely *not* ‘digital’: a single neuron can have 10,000 synapses that comprise both positive and negative connections (*viz.*, redundant, intermingling, parallel, and nonlinear systems of ‘feedback’ within the individual neuron); furthermore, a variety of non-neuronal glial cells have a wide-range of influence on synaptic function, neurophysiological structure, and brain wave oscillations (see Fields, 2009). Even further, the recent discovery that, contrary to previous dogma, the lymphatic system is intertwined with the nervous system even in the brain itself (Louveau et al, 2015), implies a much more complex interaction of neural and glial activity with the body’s other systems. The ‘analogical’ is very far, indeed, from ‘primitive’.

guide human action and practice. In his elucidation of “the conduit metaphor” Reddy (1979) demonstrates how the assumptions of the transmission model of communication—apparent in the very way that we *talk about* communication, thereby providing a reliable indication of how we *understand* communication—constrains our understanding of both language and communication more broadly by prefiguring words as “containers” of meaning (analogous to ‘packets’ of information).³⁹ While the study of syntactical structure may be tremendously productive—and *may* be necessary—for the study of language, particularly of linguistic structure in the syntactician’s very limited sense, neither grammatical relations nor informational codes are sufficient for the understanding of human communication and interaction.

A semiotician would likely counter this criticism by arguing that the field of semiotics has accounted for this in the basic functional categories of syntactics, semantics, and pragmatics. Charles Morris (1937) posited these distinctions in his attempt to integrate the scientific perspectives of logical positivism, behaviorist empiricism, and philosophical pragmatism (for an overview see Posner, 1987). The proponents of all three approaches considered themselves to be ‘scientific’ in their rejection of “a priori synthetic judgments” as a source of knowledge, where ‘knowledge’ was to be distinguished from ‘empirical data’ in,

- for **logical positivism**, the formal structure of the language employed,
- for **behaviorist empiricism**, the function-dependent substitution of signs for objects, most typically in terms of ‘stimulus’ and ‘response’, and
- for **philosophical pragmatism**, the social conventions of communication,

³⁹ This insight has been extended extensively since Lakoff and Johnson’s (1980) *Metaphors We Live By*.

each of which could be empirically investigated in its own right (Posner, 1987; *op cite* Morris 1937). To Morris, each approach further implied a different type of symbolic relation: symbols to symbols (*syntactics*, typically the investigation of ‘well-formed sentences’), symbols to objects (*semantics*, typically as the study of [logical] propositions), and symbols to persons (*pragmatics*, typically “the study of linguistic acts and the contexts in which they are performed”; Huang, 2007, *op cite* Stalnaker, 1972). The first two of these categories (syntactics and semantics) constitute the inherently positivistic assumptions at the root of semiotics, specifically in the notion of the ‘sign’ as a discrete unit of ‘information’ that can be collected with other such units to comprise ‘sets’ of ‘data’. For Morris, the overarching integration of these three modes of relation constituted the general science of “semiotic,” as well as three dimensions of the complete ‘grammar’ of a given semiotic system. These categories were based upon Peirce’s earlier triadic distinction of “pure grammar” (i.e., syntactics), “logic proper” (i.e., semantics), and “pure rhetoric” (i.e., pragmatics), which also provides justification for the psycholinguistic insistence on the separation of syntactical relations from meaning and ‘performance’ (as *langue* from *parole*). While they do not align exactly, these distinctions also resonate with Wiener’s three levels of human communication: the perceptual (perhaps most closely related to the syntactic by being constrained within a system of biological or mechanical effectors and receptors), the semantic (encompassing the encoding and decoding of meaning according to formal codes), and the behavioral (encompassing pragmatics and metacommunication occurring in social and interactional situations).⁴⁰

⁴⁰ This comparison—and the key difference between Wiener and Morris—further indicates the fuzzy distinctions between ‘information’ and ‘data’, which are not consistent and are difficult to reconcile in practice. Specifically, for Wiener, though ‘information’ is a stimulus, ‘memory’ is constituted by cumulative changes of state within the cybernetic system; it is from this position that Wiener argues that ‘information’ is neither matter nor energy. In contrast, for Morris

While these distinctions can be understood as providing a broad framework of, typically hierarchical, interacting ‘codes’ and ‘subcodes’ (to use Jakobson’s terms), they all inherently privilege the concept of the ‘message’ as a discrete, ideally quantifiable, unit. Pragmatics may attend to language in use and communicative ‘codes’ ‘around’ language (i.e., the ‘*paralinguistic*’) or ‘beyond’ communication proper (i.e., ‘*metacommunication*’ ‘about’ the exchange of discrete messages), but the prefixes clearly indicate the priority accorded to the ‘real’ message content (i.e., semantics), understood to be discretely encoded in formal (if not readily apparent) syntactical relations. These perspectives on communication derive directly from the assumption of the ‘message’ as a discrete, quantifiable unit combined with the assumption that spoken language—the most complex form of communication in the known universe—provides the basic, paradigmatic model of syntactical relations, generally (i.e., as cipher to social semiotic); in other words, a wholly reductionistic and impoverished understanding of language is taken as the model for any set of coded symbolic relations—a model that can fully account for neither language specifically nor symbolic (inter)action more broadly. Nevertheless, these theoretical foundations of the study of communication underlie the study of digitally mediated communication, and—because such communication is by definition ‘encoded’—are uncritically assumed. These assumptions, however, have caused quite a bit of trouble in understanding human adaptations to computer-mediated communication of what have been considered ‘nonverbal’ functions, paralinguistic and metacommunicative ‘cues’, and the now common but little accounted for use of several communication technologies, ‘channels’, or ‘modes’ simultaneously. While the assumption that communication could be understood as the

empirical ‘data’ are collected and quantified units of information—both stimulus *and* ‘units of memory, which could accommodate even memory *as* stimulus: the material (or ‘matter’) of ‘knowledge’. It was in the combination of these perspectives, cybernetics and semiotics, that the metaphor of computer ‘data storage’ as ‘memory’ was thereby naturalized.

discrete exchange of discrete signs as units of information was tenuous even for conventional face to face interaction, the spatial and temporal complexities and multiplicities of contemporary mundane mediated interaction make such linear assumptions more of a liability than an enlightenment.

2.3.1 Communication & Interaction: The Digital Nonverbal & the Multimodal

As reviewed above, early studies of text-based computer-mediated communication were fascinated by the range and depth of ‘paralinguistic’ and ‘metalinguistic’ forms that unexpectedly sprouted across networked screens as soon as those screens became available. In retrospect, such phenomena should not have been surprising. Rather than being related to any novelty inherent in mediated communication, the surprise itself is more indicative of both the reductive assumptions equating ‘signs’ with ‘information’ and the cultural biases toward, and privileging of, the written word as text (as discretely analyzable ‘data set’) over the spoken and embodied (often implicitly gendered and racialized, the former in terms of ‘rationality’, the latter in the guise of ‘civilized’ communication⁴¹). Even specifically linguistic approaches to computer-mediated communication have begun to acknowledge that “there are qualitatively no new features [of communication] that were not familiar to us *before* the advent of [e.g.] email” (Dürscheid & Frehner, 2013; emphasis added). Using historical examples dating back to Egyptian hieroglyphics and Shakespearean/Elizabethan language play, Crystal (2001) demonstrates that many of these supposedly ‘new’ conventions, even in the more recent context

⁴¹ Blommaert & Backus (2013) make the interesting point that the “democratization of access to literacy resources has [...] not removed the hierarchy between ‘correct’ and ‘incorrect’ writing: it has highlighted and emphasized it. The expansion of the modes of language learning has not resulted in a more egalitarian field of language learning; it has led (and is leading) to increased stratification and polycentricity” (p.21).

of mobile text messaging, are, in fact, far from novel. In his three-volume compendium collecting a lifetime's work in the investigation of nonverbal communication, Poyatos (2002a, 2002b, 2002c) illustrates the human being's vast resources of nonverbal communication with examples from European and American literature, specifically emphasizing that the functions of the 'nonverbal' pervade the use of language even in strictly and narrowly textual forms (or 'modes'), and that language is always embodied and performed.⁴²

All interaction inherently involves a variety of dimensions, or 'modes of representation', related to different perceptual systems (e.g., the visual, the audial, the tactile) and encompasses a variety of 'semiotic resources', or 'modalities' (e.g., the proxemic, the chronemic, the imagistic, the tactile, the gestural, the verbal—written or spoken or manually signed). Face-to-face interaction, for example, involves far more than the exchange of words (e.g., Goodwin, 2000, 2007; Allwood, 2002; Massaro, 2002). Typically, however, the verbal is privileged over the 'nonverbal',⁴³ and the (marked) term itself speaks to and reinforces that privilege. As Norris points out, the term

nonverbal conveys that these are appendages to the verbal mode. If the so-called nonverbal modes were actually appendages to language, these modes would always have to be subordinate to language. However, this is *not* the case. Modes like gesture, gaze, or posture *can* play a *superordinate* or an *equal* role to the mode of language in interaction, and therefore, these modes are not merely embellishments to language. (Norris, 2004, p. x)

⁴² In what in retrospect looks like a prophecy of the development of emoticons and emoji as far back as the mid-1970s, Kendon (1981) pointed out that "Poyatos [...] sees no reason why conventional written forms for at least some extralinguistic aspects should not be invented (cf, Poyatos, 1975)."

⁴³ For a recent look at multimodal approaches to historically linguistically oriented conversation analysis, see Depperman (2013) and Mondada (2014).

Even the acts of reading and writing (Bernson, 2002; Unsworth & Cléirigh, 2009)—whether reading from paper or a screen; whether writing with a pen, pencil, or can of spray paint (Noland, 2009), or typing on a keyboard, or ‘writing’ with speech transcription technologies—involves a multitude of physical and temporal attributes and considerations that go far beyond the words and linguistic structures. “An important point which is sometimes ignored,” Bernsen argues,

is that *all* of the perceptible physical properties characteristic of a particular medium, their respective scope of variation, and their relative cognitive impact are at our disposal when we use a certain medium. Standard typed natural language text, for instance, being graphical, can be manipulated graphically (boldfaced, italicized, coloured, rotated, highlighted, re-sized, textured, re-shaped, projected, zoomed-in-on, etc.), and such manipulations can be used to carry information in context. (Bersen, 2002, p. 101)

For Elleström (2010a), these attributes and functions also point to the fact that “all forms of art, media, languages, communication and messages have some characteristics in common which make it possible for [a given ‘sign’] to hover between different systems and simultaneously be part of various frameworks without losing its relative stability” (Elleström, 2010b, p. 4)—in other words, a ‘sign’ can float among different codes (or encodings) simultaneously. Beyond the influences and effects of these material factors of specific media and intermediality⁴⁴ on the processes of communicative interaction, any given interaction or act of communication necessarily takes place within a physical, material environment(s)—though that environment may be perceived among the interactants in very different ways and shared to widely varying degrees (even without accounting for technological mediation).

⁴⁴ ‘Intermediality’ refers to the relations amongst different media technologies and mediational forms, see e.g., Elleström (2010a) and Helles (2013).

Attempting to account for this wider context of human interaction, multimodal semiotic approaches, typically developed by the extension of Halliday's systemic functional grammar, have sought to escape the confines and limitations of a strictly linguistic focus.⁴⁵ Much of multimodal semiotics has been primarily concerned with the 'reading' of visual 'texts' focused on the analysis of the different 'modes' (*viz.*, 'image' and 'text') and their interrelations (e.g. Hodge & Kress, 1988; O'Halloran, 2004; Kress & Van Leeuwen, 2006; Jewitt, 2009; Jaworski & Thurlow, 2010). But multimodality is also of obvious concern for multimedia studies and the development of communication technologies (particularly in relation to accessibility technologies, for example for the sight-impaired), since the affordances of different media are directly related to their modal capacities. Bernsen thus defines the scope and research agenda of Modality Theory as:

given any particular set of information which needs to be exchanged between user and system during task performance in context, identify the input/output modalities which constitute an optimal solution to the representation and exchange of information.
(Bernsen, 2002, p. 94)

As can be seen clearly in these quotations, modality theory (and related multimodal semiotics) is firmly wedded to the assumption that the discrete 'sign' is the basis of the 'exchange of information' that is assumed to constitute the process of communication. For this reason, multimodal approaches have been largely consumed by the intricate categorization and systematization of the various 'grammars' of the different 'modes', 'modalities', and 'media', based (however loosely or even metaphorically) on the model of linguistic structure. This may be why so much attention and disagreement has centered on the problem of defining what,

⁴⁵ Jewitt (2009, chapter 2) summarizes the characteristics of and differences among the three predominant perspectives in multimodality studies: social semiotic multimodal analysis, multimodal discourse analysis, and modal interaction analysis.

precisely, constitutes a ‘mode’ or a ‘modality’, and how these definitions are to be functionally operationalized in the analysis of multimodal ‘texts’.

In the way many functional approaches to language have looked outside of language for structural metaphors to apply to linguistic understanding (thereby continuing to privilege language), multimodal approaches to communication have generally looked to and privileged the visual as the dominant human perceptual sense as a way to address symbolic action as semiosis: the visual mode encompasses much of the ‘nonverbal’, from facial expression, posture, and (perhaps the bulk of) proxemics, to common social identity markers (such as gender, ethnicity, and clothing). The visual system is the dominant human sensory system, and, for the visually unimpaired, the visual ‘mode’ dominates our understanding of spatial relations and even language itself in the form of reading. The idea of reading as visual semiosis is relatively easily extended to the ‘reading’ of the graphic and three-dimensional ‘texts’ of visual and spatial arts. Where the linguistic system is typically understood from a pragmatic perspective as the paradigmatic ‘code of codes’, the visual is understood from the multimodal perspective (supported by findings in the cognitive sciences) as the ‘mode of modes’ (a bias evident in Western thinking—‘seeing’ as a metaphor for ‘understanding’—since, at least, Aristotle⁴⁶), which then serves as a general model for relationality—and therefore *rationality*—based on spatial relations visually perceived.⁴⁷

⁴⁶ See O’Gorman, 2005, on *phantasia* and *theoros*.

⁴⁷ The connection of ‘seeing’ with ‘rationality’ accounts for the ancient mystical systems that developed around the discovery of geometry, e.g. Pythagoreanism. The problem, as Woodiwiss (2001, p. 3) argues at length, is that when under the influence of such theoretical and methodological ‘ocularcentrism’ “it is the visualities rather than vision that governs what we see.” See also, Foster (1988), Levin (1992), Jay (1994).

But the shift from the privileging of the linguistic to the privileging of the visual in communication and media studies doesn't address the underlying problems carried along with the continued assumption that communication—or semiosis—is defined and constituted by the discrete exchange of signs as discrete units of information. The very idea of objects or ideas having a discrete character is largely an entailment of the visual 'mode' and our dependence upon it. The problem is evident in the continued focus on the textual elements and assumed linguistic character of computer-mediated communication, which originally led to the problem of the 'paralinguistic' formed around the apparent absence of capacities to exchange largely visual social cues in text-only interaction. However, the wealth, complexity, and emotional and psychological richness of the techniques and interactional forms that sprang to life to accommodate this 'lack' or 'reduction' put lie to the idea that conversational text was but a meager replacement for embodied interaction. Nevertheless, new media researchers, for the most part, doubled-down on the 'richness of language' as a 'social semiotic' in order to account for these phenomena—even in the study of such aspects of digitally mediated communication as gender and intercultural (and inter-linguistic) exchange and hybridity, in large part because the media forms being used and studied were and continue to be visual media (again, text—even when 'paralinguistic'—is a visual mode).

To recapitulate, the wide adoption of digitally mediated communication technologies and forms that seemed to both rely on language and expand far beyond what were assumed to be the capabilities of language (as a 'code'-system) generated an interest in the apparently obvious division between 'oral' and 'literate' cultures, but this distinction crumbles quickly upon inspection. The 'oral' is not resurgent in electronic, text-based, 'literate' communication: the inescapably embodied character of interaction (i.e., 'orality') never went away. The arrival of

social media, in particular, has brought a wider and developing interest in the pragmatics and especially the sociolinguistics of digitally networked communication technologies. But, ultimately, instead of demonstrating the difference of the ‘new’ media, this body of work has largely shown—continued to show—that ‘online’ interaction follows the same general patterns as ‘offline’ interaction and that the two are intimately related (if they are even functionally distinct). The closely related, if contrasting, interest in ‘multimodal’ interaction across the different hybrid spaces instantiated in such interactions moves closer to understanding mediated communication and interaction as an embodied activity that gains little to nothing by being divided (‘analyzed’) from communication and interaction more generally. It is, in fact, in that very division—and related others: ‘new’ from ‘old’, ‘oral’ from ‘literate’, ‘text’ from ‘image’, ‘datum’ (as ‘text’) from ‘context’—that the strange methodological artifacts of ‘new media’ interaction appear. However, most forms of multimodal semiotics continue to privilege the visual and assume semiosis to be a linear process of discrete exchange of signs as information.

2.3.2 The Social Life of Information⁴⁸

The idea of communication as the exchange of discrete, ideally quantifiable, messages relies on a reductive concept of ‘information’ that makes it difficult to distinguish between terms such as ‘information’, ‘data’, ‘knowledge’, and ‘meaning’, while conflating various concepts of ‘code’, as described above. In many ways this imprecision has been helpful and generative. As Kendon (1990, p. 25-26) points out, Shannon’s mathematical theory of communication “was a significant broadening of the sense of what could be regarded as ‘communication’”. It helped to open a great many people's eyes to the idea that communication between people involves far

⁴⁸ The allusion here is to Brown & Duguid (2000).

more than just what they say to one another” because any detectable aspect of behavior can be approached as (and reduced to) the transmission of ‘signs’ as signals—the encoding and decoding of information. But for that very reason, very different kinds of ‘behavior’ are easily conflated; the understanding of intention and reception in communication can be confused, discounted, or ignored; and the differences and relationships among ‘data’, ‘information’, ‘meaning’, and ‘knowledge’ are all too easily confused.

One approach to addressing these problems comes from social semiotic theories, such as that of Gunther Kress, who argues that

signs are always newly *made* in social interactions; signs are *motivated*, not *arbitrary* relations of meaning and form; the motivated relation of a *form* and a *meaning* is based on and arises out of the *interest* of makers of signs; the form/signifiers which are used in the making of signs are *made* in social interaction and become part of the semiotic resources of a culture. The relation of form and meaning is one of *aptness*, of a ‘best fit’, where the form of the *signifier* suggests itself as ready-shaped to be the expression of the meaning – the *signified* – which is to be realized. *Aptness* means that the form has the requisite features to be the carrier of the meaning. (Kress, 2010, p. 54-55).

What this indicates is the importance and the problem of ‘context’, which became readily apparent to the early information theorists and cyberneticists who soon recognized that supposedly discrete ‘messages’ functioned in more than one way simultaneously and that ‘texts’ could only be understood in terms of *contextual* relations. Kendon provides a succinct summary:

Shannon and Weaver had shown that every message that is transmitted can be looked upon as serving both as a report, in virtue of it being a consequence of an event at some previous moment in time, and as a command or stimulus for what is to follow. Bateson [...] developed this further and showed that, in any communication system, including, of course, human interaction, there must be provision for a type of communication which permits the participants to calibrate the way in which they interpret each other’s messages. Bateson showed that, at the same time as *p* sends a message, he must also send

information about what constitutes the boundaries of the message he is sending and what sort of message it is. Such instructional communication, which he called *metacommunication* [...], is found both in the nature of a given message and in how it is embedded within a context of other messages. Messages, thus, have “meanings” at multiple levels simultaneously. It eventually came to be seen that what message is regarded as “meta” to another is a purely relative matter. What is “message” and qualifying “metamessage” cannot be identified in any absolute sense. As one of Bateson’s collaborators, Jay Haley, expressed it some years later: “There was no ‘message’ but only metamessages qualifying one another” [...] This means that, in the study of interaction, we must see that the behavior observed functions communicatively at more than one level simultaneously, and that because of the necessarily embedded character of anything that is focused upon, to understand how it is functioning in the interaction we must look at this embedding as well. (Kendon, 1990, p. 25-27)

But if this is the case, we may wonder whether the assumption of discrete ‘messages’ ‘exchanged’ in the form of ‘signs’ as ‘information’ is really the best set of basic assumptions to make in the study of interaction and communication. The very concept of ‘context’—as all but admitted in the quote from Kendon—gets the emphasis exactly backwards: even when ‘context’ is understood as a system of ‘texts’ (a ‘text’ thereby being understood as a more or less unified system of discrete if polysemous and potentially polyphonic ‘messages’, as in social or multimodal semiotics), the emphasis is on the discrete character of ‘information’ in the form of discrete ‘messages’ as ‘signs’. But ‘context’ is not what comes ‘with’ the ‘text’; it is what *constitutes* the ‘text’.⁴⁹ ‘Messages’ are neither ‘embedded’ in nor the building blocks of ‘contexts’: ‘messages’, as ‘information’ from ‘data’, are indexically constituted by the ‘contextual’ systems they indicate and are pragmatically enacted in interaction.

⁴⁹ Or, in Grossberg’s (1992, p. 55) terms, “it is the background that actually articulates the focus.”

Statistical abstraction, Latour (2010) points out, was developed in the natural sciences as a necessary crutch making up for a *lack* of access to the phenomenon being studied. The astronomer has no direct access to the star; the biologist no direct access to the gene (which is itself a statistical abstraction). But the social scientist often *does* have direct access to the phenomena and agents under investigation. In the study of mediated social interaction this is clearly the case—certainly in comparison with the natural sciences. A dataset comprising text message interactions (especially one including rich metadata) is not a transcript of conversation(s) even in the way that a record (in whatever medium) of a face-to-face conversation is for the conversation analyst; it *is* the conversation, often analyzed and investigated in the same format in which the messages themselves were both produced and received—the primary abstraction being temporal. This evokes precisely the great current hope, promise, and danger of ‘big data’: direct access to social phenomena and processes.⁵⁰

But this is precisely the problem with an uncritical reliance on quantification. Data (in the general, colloquial sense) are not directly perceived as *given*. They

appear, come into being, exist (or not) in a particular ontological, epistemological, and methodological structure. The meaning and function of data depend on the meaning and function of a constellation of other concepts with which it is imbricated, for example, the concepts *reality*, *evidence*, *warrants*, *claims*, *reason*, *knowledge*, and, of course, *truth*.

(St. Pierre, 2013, p. 224)

⁵⁰ Richards & King (2013) provide a concise and lucid discussion of three paradoxes of ‘Big Data’: 1) the transparency paradox: “Big data promises to use this data to make the world more transparent, but its collection is invisible, and its tools and techniques opaque”; 2) the identity paradox: “Big data seeks to *identify*, but it also threatens *identity*” by imposing constraints on the individual’s power of self-definition and autonomy; and 3) the power paradox: “Big data will create winners and losers, and it is likely to benefit the institutions who wield its tools over the individuals being mined, analyzed, and sorted [...leaving] individual rights eroded and our democracy diminished.”

‘Data’ is a relational construct – a marker of relation – that constrains its own possibilities of interpretation, though ‘information’ is necessarily interpreted: information = data + meaning.⁵¹ ‘Big data’ is of little use (because effectively meaningless) until it becomes ‘information’, but that process of becoming meaningful depends upon the interpretive constraints according to which the information is constituted. ‘Big data’ is effectively meaningless (though not useless); ‘big information’, to coin a term, is necessarily limited not only by context of acquisition, but by the purpose for which it is constituted (and used).

Given this, most theoretical constructs that address the problem of ‘context’ and ‘information’ (in other terms, e.g., ‘paradigms’, ‘fields or argument’, ‘regimes of knowledge’, ‘structures of dominance’) have little room (to say the least) for empirical quantification, most being explicitly anti-positivistic, if not what some might understand as anti-empirical all together (e.g., Denzin, 2013). Such arguments provide valuable qualifications on empirical methods and their (sometimes latent) positivistic ontologies that – even when applying qualitative and interpretive methods – succumb to the uncritical reification and naturalization of ‘data’ and ‘information’, which Alfred North Whitehead called the ‘fallacy of misplaced concreteness’ (*op cite* Rawls, 2002).⁵²

⁵¹ Floridi (2011) identifies this formulation as the *general definition of information*, a generalized amalgam of current common approaches to the concept of information.

⁵² Rawls (2002), while agreeing, argues that interpretive sociology and related fields, in denying the reality of ‘empirical fictions’, tend to fall prey to an obverse ‘fallacy of misplaced abstraction’ that mistakes ‘concepts’ for reality. Others argue that the uncritically empirically minded, “Those suffering from RUP – Owen Barfield's invention: Residual Unresolved Positivism – generally do find it difficult to conceive of the active mind as engaged in a process which is necessarily social: they have not yet liberated themselves from a dyadic conception of the person and society. I hold with Sapir that both are ‘statistical fictions’” (Berthoff, 1991, p. 516). Steinmetz (2005) has argued that logical positivism/empiricism functions as the ‘epistemological unconscious’ of the social sciences.

It is from this perspective that qualitative methodologists attack the (sometimes unacknowledged) positivistic assumptions that perceptual access to the world is direct and quantification is enumeration of things in the world as *given*: social science data “are not things that can be collected, coded [and] analyzed; data are processes constructed by the researcher’s interpretive practices [...] Data are ideological productions” (Denzin, 2013, p. 355). Such arguments against positivistic empirical concepts of ‘data’ as proxies for ‘reality’ point out that taking ‘data’ as given reifies not only ‘data’ and ‘information’ as objects, but the particular theoretical interpretive model applied in a particular context, at the particular level of abstraction, and for a particular purpose, ignoring the near infinity of other potential interpretive orders that could be operating ‘in context’. Denzin, for example, argues that such uncritical and unreflexive use of the term ‘data’ (to which we would add, not substitute, ‘information’) amounts to a commodification of reality and the near fascistic imposition of a particular worldview.

We might argue with Cooren (2010), however, that ‘reification’ (stripping the term, for the most part, of its Marxist associations in favor of its etymological roots) is not only inevitable but necessary. A paradigm, a discipline, an order of interaction, a terministic screen, etc., is a mechanism for reification (for *making-real*), but understanding of the world is only possible through such a relational order of interpretation: no ‘things’ exist apart from a ‘thing-ifying’ order of relations—to *understand* is to appreciate constitutive relations—to *relate* is (in *reality*) to *reify*: the trick is in the application of the predicate.

[T]he reality of an object is *not* found in its ontological structure but *is* found in its constitution as a unity of meaning. To say that an object is real is to mean that it is of interest to an experiencer relative to some order of past, present, and anticipated experiences. To furnish another perspective in the matter: the reality of an object as a unity of meaning is not found in its ontological structure; rather, the ontological structure is found in its reality as a unity of meaning. An object is always a determined object.

However, the various ways in which objects can be determined remains for investigation. (Garfinkel, 2008, p. 142)

This perspective brings the thread of semiotics back around and through the loop with interpretation of information as signs being dependent upon a structuring ‘code’: given the necessity of a constitutive order of interpretation for both understanding and communication (because “a common understanding has a necessarily operational structure,” Garfinkel, 1967, p. 25), a social semiotic functions as a hermeneutic horizon allowing the world to be ‘read’ as a set or series of ‘texts’. But just as mid-twentieth century structuralist misreadings of Saussure led to a reductive linguistic imperialism, a reductive understanding of information as discrete, quantifiable signs can take for granted or fail to recognize the necessity of a constitutive order, or ignore the fact that while some constitutive interpretive order is necessary, the specific order enacted is relative to a specific ‘context’ and ‘interpretive community’: the syntactic code (symbolic information) becomes conflated with semantic code (indexical information) via the uncritical application of a particular cipher (iconic information). More critically,

[F]ollowing interpretivism, qualitative researchers diligently, carefully, and accurately textualize in written words in interview transcripts and fieldnotes what people tell them and what they observe. [...] Too often, without explanation, they then employ a logical positivist/empiricist methodology and treat the words in the written texts they’ve produced as brute data. The rationale seems to be that if qualitative data can’t be numbers (pure and uncontaminated by humans) then words will have to do. Once the empirical is transformed into real, visible words on a page—brute, sense data—these researchers strip the words from context, manipulate them, order them in binaries and hierarchies and categories, label some words with other words (code data), and even count words. *Words become quasi-numbers*. The confusion in that shift from interpretive to positivist social science *in the same study* becomes evident in its incommensurable treatment of the

appearance of data and, unfortunately, that confusion pervades qualitative inquiry. (St. Pierre, 2013, p. 224)⁵³

St. Pierre's argument will likely (and with good reason) be taken as unduly harsh by researchers who make up her target population ^{<rimshot!>}, but there is no particular reason why a typical uncritical attitude toward the constitutive orders of information should be taken as evidence of the incapacity or impossibility of doing otherwise⁵⁴, though this is what many anti-positivistic critics seem to imply:

the *values* that enable the methodological instrumentalism and practices of formalization that discipline social science inquiry to make it scientific—e.g., systematicity, linearity, accuracy, and objectivity; obsessive concerns with individuating, sorting, and categorizing; the consensus of disciplinary communities, IRBs, and so forth—leach our energies and constrain experimentation. Designed to reproduce the same rather than encourage difference, they trap us in the *given*, the myth of Science. (St. Pierre, 2013, p. 226)

But to argue that analysis is inevitably disciplining and uncritical, and that synthesis is uniformly individual and creative is to misunderstand the mutually constitutive relationship of

⁵³ Rawls (2002, p.29) makes a similar, though less absolutist, argument from the perspective of ethnomethodology: “statistics, numbers, do not represent raw unmotivated accounts of reality. They are compiled for ‘purposes’. Furthermore, these purposes are accountable, both to superiors and to other agencies. The process of compiling them, whether it occurs within formal organizations or is done by the researcher, is a process of social construction [...] It is this process that imparts ‘meaning’ to statistics within the organizational, or research context.” See also McCloskey (1998), Ziliak & McCloskey (2007).

⁵⁴ “I believe that properly understood, Durkheim’s argument [that ‘the objective reality of social facts is sociology’s most fundamental phenomenon’] entails that there are no unconstructed social objects for a positivist to study, a position with which Garfinkel would certainly concur. However, that a social phenomenon is socially constituted does not mean that the process of social construction itself cannot be seen and heard and thereby made available to empirical examination” (Rawls, 2002, p. 20, fn 19).

Plato's yin and yang of combination and division⁵⁵: "Mutual intelligibility requires the production of shared recognizable practices. Creativity, nonconformity, and even rebellion can only meaningfully occur against a background of mutually constituted intelligibility" (Rawls, 2002, p. 25). It also invites real and present ethical dangers in abandoning consensus for an unrestrained investigative libertarianism that ignores the social, interactional, and intersubjective character of information, meaning, and knowledge. Understanding empirical observation to be the 'carving of the world at its proper joints' need not entail an uncritical acceptance of how that 'proper' is to be defined and operationalized. Such a position constitutes the obverse of what Garfinkel calls the 'fallacy of imposed order', which

stems from the failure to have so conceptualized the difference and the relationship between that which is observed from the act of observation that something akin to 'automatic' interpretation of what is seen is made so that the observer is hardly aware that in seeing he has 'seen' what his empirical constructs told him he would see. (Garfinkel, 2008, p. 127)

⁵⁵ In *Good Looking*, Barbara Marie Stafford traces the connections among the privileging of rational, analytical thought and the undermining of the more generally synthetic visual mode of knowing: "The strategy for 'reading' hidden terrain was derived from rational philosophy. Dissection interrogated the inert body by violently laying it bare—much like the deductive dismembering of a coherent thought by a syllogism. The aim of the anatomical method, and I use the term now with its broader epistemological connotation of measured vertical penetration, was to get at a fundamental truth that lurked beneath a merely visible, unimportant appearance or surface. Such an invisible gem of transcendent value, it was believed, could be made manifest only through calculation, the division of the organism into computable parts. The analytical and separating knife of reason successively descended from the epidermal (appearance), to a subcutaneous mycology, to attain, finally, the bedrock bone itself (character). This slicing resembled the parsing of a sentence to arrive at a clear meaning or the cutting of a corpse to reach the seat of life. [...] What a contrast this rational-linguistic system of attack makes with visual cognition embodied in noninvasive and nondestructive medical probes [e.g., CT scans and MRIs]. [...] The anatomical, lexical, and logical mode of knowing tends to render insensate the objects of its scrutiny. By splitting, fragmenting, and isolating biota in frozen moments, the procedure is antithetical to the mutable and metamorphic life processes it purports to reveal" (Stafford, 1996, p. 36-37).

The futile attempt to abandon systematicity and categorization tempered by consensus does not necessarily enable one to escape this trap of imposed order—which is precisely what brains *do*—impose order, not *on* but *in* experience—both intra- and inter-personally.

Nevertheless,

[D]ata and evidence are never morally or ethically neutral. [...]he politics and political economy of evidence, also known as data, is not a question of evidence or no evidence. It is rather a question of who has the power to control the definition of evidence, who defines the kinds of materials that count as evidence, who determines what methods best produce the best forms of evidence, whose criteria and standards are used to evaluate quality evidence? The politics of data, the politics of evidence cannot be separated from the ethics of evidence. (Denzin, 2013, p. 354)

The problem of information, therefore, is not just a methodological problem, but is inherently a political and an ethical problem. Who perceives, who interprets, who decides, for whom, and why—as well as *how* they are able to do so—are not questions that can be ignored without abandoning all pretense to the social validity that makes empirical investigation ‘objective’.

2.4 **Conclusion: Information and Agency**

This chapter has attempted to formulate a set of underlying methodological problems with the investigation of digital media interaction in terms of what constitutes the object of such investigations. While these problems are not confined to the study of digital media, they are perhaps made more complex by the position and role of ‘information’ in the investigation of ‘information communication technologies’ and those who make use of them. If not accounted for, the foundational assumptions of linguistics, semiotics, information theory, and cybernetics (as well as the useful and profitable mathematical and statistical reductions they rely on) bring

with them potentially severe limitations for how we are able to conceptualize interaction of any kind, and mediated interaction in particular. For example, when the information that constitutes ‘reality’ is fundamentally understood as or to be shaped by the concept of information as dynamic figural ‘difference’ against an unchanging background, the natural result is often the privileging of ‘text’ over ‘context’ (and ‘new’ over ‘old’)—and thereby a basic misapprehension of the relationship between the ‘message’ and the constitutive order of interaction. Such assumptions can lead, for example, to what might be understood as a ‘context’ (e.g., a specific media platform or technology, i.e. a ‘toaster’) being taken as a discrete ‘text’ in and of itself, disconnected from social and other influences that shape its constitution, development, and use. Furthermore, when a ‘transmitted’ ‘message’ is equated with a ‘sign’ as a ‘unit of information’, the assumptions of conventional linguistics and semiotics and the privileging of linguistic structure (syntactical relations) make it extremely difficult to understand communication or interaction in any other terms. Attempts to address this situation in terms of social semiotics have brought greater attention to the ‘contexts’ of mediated interaction, and multimodal semiotic methodological orientations have made progress by attempting to expand beyond language as the ‘code of codes’, though they tend to remain mired in the visual as a ‘mode of modes’. Since, in the study of communication, language is taken as a visual (symbolic) phenomenon, this jump from linguistic code to visual mode is a relatively small step, at best, though it can better allow for ‘context’. The fact that much mediated interaction remains predominantly visual only bolsters dominant limitations related, again, to how ‘information’ is conceptualized, constituted, and manipulated as ‘messages’ ‘transmitted’ and ‘received’.

Chapter 3 will offer a set of ideas that addresses these problems. First, however, there is another set of issues related to the problem of information politics and ethics with which the

previous section of this chapter closed: the problem of *who*. Herein, I have argued indirectly that ‘information’ is pragmatic and functional, being enacted in interaction within a constitutive order. Chapter 2 addresses the interactional aspect of this argument by discussing the constitution of the situated and contextualized ‘actors’ who engage in the interaction by which ‘reality’ is both constituted and investigated. Information, after all, even in the conventional understanding of ‘a difference that makes a difference’, must be information *for* someone or something.

3. PROBLEM SPACE—WHERE THE ACTION IS

3.1. Introduction: Of Actors and Action

The assumption of communication as linear transmission or the exchange of discrete signs as units of information makes the constitution of data and information not just an epistemological problem but an ontological problem. This is perhaps seen most clearly in the tenuous or jumbled relationships among the concepts of information, meaning, and memory, and the closely related metaphor of memory as ‘stored information’ or as the ‘place’ from which information is ‘recalled’. What kind of ‘thing’ (object) is information to be ‘recalled’ or otherwise manipulated? The positing of information as an ontological category (information as immaterial ‘object’—an encoded ‘sign’ unbound to any particular material form), when extrapolated, can lead, for example, to the supposition that the universe is a giant computer ‘made of information’—information as the fundamental substance of the universe, ‘just there’ like ‘space’.⁵⁶ Cybernetics can be extended thus, thanks to its understanding (following Wiener) of information as ‘the name for that which we exchange with the world’ (in other words, as ‘signs’) and memory (‘information storage’) as a state-configuration of an information processing system: the universe as a self-contained cybernetic-information system—a system ‘made of’ information—for which ‘memory’ is equivalent to ‘history’ (equivalent to previous system states).⁵⁷

⁵⁶ The roots of such speculations can be traced back to at least the ancient Pythagoreans. Current versions go by a variety of names, including digital ontology, digital metaphysics, and digital philosophy. For a review and critique see Floridi, 2011, chapter 14.

⁵⁷ Brockmeier (2010 & 2015) provides a fascinating discussion of the many, varied, and evolving concepts of and approaches to memory.

One problem with such speculations is the same as that with the entailments of semiotics, where a ‘sign’ (i.e., a datum, or unit of information) is ‘anything that can be taken as a sign’; namely, the ‘objective’ universe (whether as *the* or *a* ‘reality’) becomes a system of arbitrary signifiers constituted by an endless chain of signification that lists ponderously toward the solipsistic because that endless chain of signification ‘stops’ (if only momentarily) only with the person ‘reading’ the ‘signs’ according to a ‘code’ or set of ‘codes’ which must themselves be arbitrary, even if socially constructed and propagated. This may seem excessively speculative (or perfectly natural, depending on the reader’s perspective and proclivities), but it is an entailment amenable to the uncritical assumption of communication as the linear transmission of signs as units of information. The theoretical bases of such speculation are shared with the basic methodological assumptions of communication research, including the digitally mediated variety: by definition, signs—as ‘message’ from ‘sender’ to ‘receiver’—must be signs *of* something and *for* someone or something—some ‘receiver’, intended or otherwise. In successful or effective communication, ‘information’ as ‘signs’ is contextually (re)constituted in the perception and conception of (ultimately) the ‘receiver’ who recognizes the signs to be signs (i.e., as information). Information, in other words, is necessarily constituted as object to subject, and the understanding (the making-meaningful) of information (which defines communication) is, therefore, as much a problem of subjectivity and agency (of both ‘sender’ and ‘receiver’) as of empirical observation (of objective ‘messages’).

This problem of subjectivity and agency in the constitution of information in communication—information as actively constituted (or ‘encoded’)—is precisely the problem of ‘action’ (*actors enacting interaction*) and, therefore, of intentionality. Even when communication is reduced to the terms of the linear transmission of a ‘message’ (as ‘signs’ as ‘encoded’ ‘units of

information') from a 'sender' to a 'receiver', and even when that process is understood in the mechanistic terms of 'command and control in animals or machines' as information processing systems, there is a clear implication of both purpose and meaning (i.e., of an intentional 'actor' or 'agent'). Communication—even as transmission, even as *reception*—is an action. But this recognition carries with it a host of thorny and seemingly intractable philosophical issues. What constitutes ('counts as') an 'actor'? What, precisely, is 'intentionality' and how can it be known except, again, through 'information' as 'signs'? An 'intentional' 'actor' is an actor capable of deception—in Umberto Eco's (1976, p. 7) often repeated formulation, 'a sign is anything that can be used to lie with', which includes, of course, lying about 'intentions' (and lies, as 'signs', need not be verbal). But 'information' is regularly 'received' without explicit communicative intention (i.e., conscious 'transmission'), whether from the environment, from objects and technologies ('mediational means') in the environment, or from actors who, in Goffman's terms, 'give off' information. Can an 'actor' 'act' *unintentionally*? If so, is that 'actor' *actually* 'sending' a 'message' and thereby communicating 'information'? If not, then is it the 'decoding' and 'receiving' of the 'message' (as opposed to the 'encoding' and 'sending'—the active 'transmission'—of the 'message') that is *actually* the basic act of communication? If the latter is the case, the idea of communication as 'command and control' in any terms (whether communicational-informational or rhetorical) becomes difficult to explain, let alone defend, and even the idea of 'lying' becomes problematic, potentially destabilizing the very notion of the 'sign'.

This chapter provides grounding for the problems of actors, agency, and intentionality by addressing the situation or 'context' of communication. Actors (communicators or interactants) are always embodied and embedded; actors inhabit spaces, and communication as transmission

assumes an intermediary space between the actors, through which messages are ‘sent’ and ‘received’. The element to be addressed in this chapter, therefore, is the ‘space’ of communication. The concept of *space* is so fundamental to human being and relations that it is deeply entwined with language itself. The associative, analogical, and metaphorical character of both cognition and language (the latter of which, as described in Chapter 1, has long served as the basic model of communication in general) has a long and rich history. The word *metaphor* comes from the Greek *metapherein*, meaning ‘to carry across’, indicating once again the deep roots of communication as ‘transmission’, but also the critical role of the space (or situation or context, etc.) of communication: if ‘transmission’ then ‘space’ (from one ‘place’ to another), and if ‘transmission’ in ‘space’ then *mediation*; if mediation, then mode, modality, and modulation: in, through, and across space in some manner mutually recognizable (i.e., ‘receivable’) to the communicators. The way in which communication is enacted in interaction—this pragmatic and functional character of both communication and ‘information’—then leads back to the question of intentionality and the agency of ‘senders’ and ‘receivers’. The question of intentionality and communicative agency is a question of rhetoric. The final sections of this chapter therefore present a characterization of rhetoric in relation to interactional (i.e., social) agency. From this perspective, then, the initial sections of the chapter concerning metaphors of space in communication, particularly in digitally mediated communication, might be read as a reexamination of what has been referred to historically as the *rhetorical situation*.

3.1.2 There is No Space

We tend to think of space as just *being there*, and ourselves as being *in* it, moving *through* it, using technology to connect *across* it. Taking a phenomenological orientation, this is

perfectly natural since our cognitive and conceptual apparatus are built upon our sensory apparatus, which have evolved to get us *around in* the world—*through, across*, and, when necessary, *out of* spaces. But, there is no ‘space’. “Space is a myth,” writes James Gibson (1986, p. 3), “a ghost, a fiction for geometers.” A ‘space’ is not an object, set of objects (e.g., ‘points’), nor a container of objects. As Uricuoli (1995, p. 189) states plainly, “Time and space are never simply there; they are continually cut to fit the agenda of the moment.” A ‘space’ is a set of relations. Space *happens* in interaction with the world and objects in it, is *enacted* in communication. Space is *made* as beings interact with their environments and with each other (‘receiving’, ‘processing’, and ‘sending’ ‘information’). For this very reason, spatial orientation is a fundamental feature of human experience. This makes thinking about communication and the use of communication technologies spatially—communication as happening within spaces or as transit across spaces—perfectly typical of and consistent with ways of thinking and talking about being in the world generally. It also explains why communication and transportation technologies have been so closely related historically. During and after the Industrial Revolution, the material exchange made possible by relatively fast and efficient transportation allowed, precisely, for faster communication, both by moving bodies and by moving messages amongst those bodies. The telegraph then made possible, for the first time, communication over great distances without the ‘actual’ transportation of messages (see Carey, 2007)—or at least without the material forms that ‘messages’ had naturally been associated with: people, paper, and other substantial objects (that's not to say that electronic forms of communication are somehow *immaterial*). A common and enduring sentiment (and hyperbole) became that space and time were “collapsing” as distances formerly beyond the body’s senses and grasp were brought within

reach. It is no coincidence that it was at precisely the time of the emergence of electronic communications technologies that the metaphor of communication as transmission emerged.

The metaphor of communication as transmission exploits and emphasizes the basic metaphor space is a container, which is intertwined with the fundamental human experiential and conceptual container metaphor (cf. Reddy, 1979; Lakoff & Johnson, 1980): things are *in* space; we *reach into/through/across* space to take hold of objects or connect with others—spaces and objects have insides and outsides; ‘messages’ are understood as *content* (i.e., *texts*) contained in *contexts*. This was a common basis for metaphors of broadcast media, for example, as evidenced in Meyrowitz’s (1985) important *No Sense of Place* where he describes the ‘space’ of television *reaching into* (and changing) spaces of interaction in the home, and viewers using television to “travel beyond” its walls. It is also the basis of the popular ‘stage’ metaphor (e.g., Goffman, 1959) of communication and interaction: the stage is a bounded space of performance with an “on-stage” and an “off-stage” (and, for Meyrowitz, a “middle stage” that erupts when different spaces of interaction collide in the production and reception of broadcast media). The container metaphor is, furthermore, the foundational basis of the idea of public and private ‘spheres’: particular types of social interaction are contained within specific conceptualizations of interactional spaces. These ‘spheres’ were historically gendered in relation to conventional types of interaction and activity, i.e., the private/domestic/female sphere of the ‘interior’ home and the public/business-political/male sphere of the ‘outer’ world. In a related fashion, before the development of industrial transportation technologies and the centripetal expansion of modern urban environments, the public sphere of community was, naturally, far more localized and was enacted in, as, and by communication in contained spaces and specific places: the neighborhood, the village, the market, the club, the barber shop, the *agora*. The combination of parchment and

Roman roads is a clear example of how communications technology can extend a community. However, the printing press and the resulting expansion of literacy extended ‘communities’ to far more widely geographically dispersed spaces of interaction (see, for example, McLuhan, 1962), an idea Morely’s (2000) *Home Territories* develops into an electronically mediated extension of Anderson’s (2006 [1982]) *Imagined Communities* but which is also seen in Thomas and Znaniecki’s (1920) discussion of the role of newspapers in consolidating diasporic communities in *The Polish Peasant in Europe and America*. Along similar lines, James Carey (1989, p. 160) argues that thanks to communications media and technologies “communities... [now are] not in place, but in space, mobile, connected across vast distances by appropriate symbols, forms and interests.” Digital and networked communications technologies are often described in similar terms relating to community, and forms of communication are understood to affect the types, activities, and interactions—the spaces and places—of the communities they extend or make possible (e.g., Lemos, 2010).

The metaphor of space as container, with technology acting as ‘walls’, has led to a variety of more specific descriptive metaphors for uses (and, some argue, abuses) of technology. Meyrowitz (1985), of course, compared the advent of broadcast technologies and the spread of multiple televisions and radios throughout the home as a knocking down of walls that created an intermingling of public and private spaces. The effects were ambivalent: television turned the individual outward toward distant and extended communities of interaction and larger “psychological neighborhoods,” but in doing so it distanced that individual from concurrent social activity in the immediate vicinity: each person in his or her own room watching or listening alone as passive audiences rather than active communicators. Raymond Williams (1983; see also du Gay et al, 1997) described the effects of early mobile technologies (e.g.

radios) as enabling a “mobile privitisation” that formed a shell around a listener, who maintained greater control of her own psychological space by erecting invisible (though sometimes audible) barriers between herself and those around her: “it is a shell you can take with you, which you can fly with” (cited in Morely 2000, p. 149). More recent mobile technologies have allowed such forms of metaphorical encapsulation to merge more directly with conceptualizations of communities and relationships as explicit spaces of interaction. Habuchi (2005, p. 179) describes as “telecocooning” Japanese teenagers’ use of cell phones to keep in constant contact with friends and lovers via text messaging regardless of distance or physical or social barriers. Tjora (2011) describes similar behavior in Norway as “SMS-hugging.” Fujimoto (2005) calls the technologies that enable such behavior “territory machines” which allow users to create boundaries of and around desired communicative connections while walling off unwanted physically proximal interactions.

To account for such phenomena, scholars (like Carey above) have made a distinction between space and place. ‘Place’ is often understood as physical location—as *event* or bounded container of events *in space*, while ‘space’ is understood as background sets of relations that are not necessarily confined by physical or geographical boundaries (risking the adoption of a spatial metaphor for space itself, we might say that place is figure to space’s ground). Shotter (1985), for example, describes ‘space’ as the realm of *possibility* and ‘place’ as the realm of *determination*. Drawing from theories of human geography that explore the affective attachment inherent in the ‘determination’ of place in relation to space (including Tuan, 1974, 1977; Relph, 1976, Sack, 1980; Harvey, 1996; Cresswell, 2004; Duncan & Duncan, 2004), Paul Adams explains that

Place is a focus of care or a center of felt meaning while space is experienced as potentiality, expansiveness, and movement. Spaces give position and orientation to

places; places give character and structure to spaces. Space evokes abstraction, inhumanness, meaninglessness, and emptiness; in contrast, places are often experienced as the essence or foundation of stability, coherence, and particularity. (Adams, 2011, p. 39)

Complicating the relationship between the two in an age of mediatization, Augé (1995) and Morse (1998) identify and discuss “non-places,” such as airports, freeways, and shopping malls, which constitute spaces of transit (of mediation) between ‘actual’ places of substantive interaction. Reinforcing the connections among space, communication, and technology, Morse includes the psychological space of television among these non-place “virtualities.” It is in this sense that Giddens (1990, p. 18) argues that “the advent of modernity increasingly tears space away from place, by fostering relations between ‘absent’ others, locationally distant from any given situation of face-face interaction.” On the other hand, de Souza e Silva (2004) argues that mobile media technologies, precisely as spaces of interaction at a distance, can turn non-places into places by making possible new forms of interactional events in previously isolating physical spaces.

Such complexities of space and place have led to a variety of increasingly more complicated hybrid theoretical concepts including the “doubling of space” (Scannell, 1996; Moores, 2004), “layered simultaneity” (Blommaert, 2005), “multiple simultaneous places” (R. Jones, 2005), “polysocial reality” (Applin & Fisher, 2011), and the connection of mediated spaces of interaction to Foucault’s “heterotopias” (Foucault, 1998; Lemos, 2010; Dalton, 2014), not to mention a wide variety of approaches to the ‘simulated spaces’ and ‘places’ of virtual worlds. Where earlier theories conceptualized spaces of interaction as more or less bounded spheres in which media provided “both potential exits from and entrances to our intimate living spaces” (Morely 2000, p. 178), including the venerable (or notorious) ‘information

superhighway’, more recently scholars and other observers, responding to the development and wide adoption of always-on, always-available, mobile, networked communication technologies, have increasingly come to understand mediated spaces as intimately intertwined with and inseparable from the physical spaces and places of our lives (e.g. Couldry & McCarthy, 2004), sometimes in terms of ‘augmented reality’. Similarly, Varnelis & Friedberg (in Varnelis, 2008, p. 21), note that people tend to organize space “as a medium of its own” and that (quoting Abler, 1970) “the city [...] is itself a communication device.” With the availability of mobile and location-based/-aware technologies, ‘non-places’ may no longer exist.

The increasing acknowledgment of the natural communicative power of the physical environment, as well as the proliferation of hybrid- and multiple-space theorizations, point to the weaknesses of the container metaphor for the conceptualization of spaces of communication, mediated or otherwise—information-communication technologies just make more apparent problems that were always inherent in the idea of communication as the transmission of information through or between containers. As Shotter cautions (using a container metaphor of his own),

We cannot avoid using narratives, metaphors or theories, but what we can avoid is becoming entrapped within their confines by claiming any one of them to be the single correct narrative, metaphor or theory. They are instruments, not depictions. (Shotter, 1993, p. 132)

It is worth keeping in mind the power of metaphor when we think about the relationship between communication and space. As Thomas Rickert (2013, p. 112) argues in his discussion of the ancient Greek philosophical concept of *chora* (see also Kristeva, 1984), “Space does not contain a body; it is ambient, material support for all our practices.” Or, even more pointedly, as James Gibson (1979, p. 100) argues, “Time and space are not empty receptacles to be filled;

instead, they are simply the ghosts of events and surfaces.” The conceptualization of a Euclidean and Cartesian space that exists in and of itself, ‘containing’ us, while phenomenologically apprehensible, is illusory. When the realm of mundane interaction (if not the ‘space’ of imagination) was generally bound by the distance a horse could travel in a given amount of time, time zones were of no consequence and thinking of the world as flat made no difference. After a century of relativity and quantum physics, it's time we began to understand—and speak about—our lived worlds as non-Euclidean and non-Cartesian. Conceptualizing spaces as containers may help us recognize and describe behavior such as “telecocooning,” but it makes the most sophisticated understanding of our multiple lived spaces something approaching a Russian doll-like kluge: discrete nested ‘spaces’ of interaction that cannot account for the permeability of communicative and interactional fields.

One common way these interpenetrations are dealt with by social scientists is an extension of the container metaphor that attempts to simultaneously eliminate or loosen *and* quantify or demarcate the containing boundaries of the interactional space: the network. The network is a poetic reduction that can do what it claims to do given a clear conception of the multiplicity of connections (‘links’) and their magnitudes—but this is possible only by severely limiting or reducing the ‘links’ to decontextualized⁵⁸, quantifiable parameters (and then,

⁵⁸ Network research methods often assume or imply that the network *is* the ‘context’ or is *its own* context—that the network is the context for its nodes. This ignores the heavily reductive character of the links/connections that define the nodes the two of which together constitute the network. The ‘network’ is a synecdoche (a part for the whole) constituted by metonymy (nodes are defined by associative links) comprising a metaphor: a SET OF RELATIONS IS A NETWORK. There’s nothing wrong with this—metaphors and models, like theories and categories, are necessary not only for research but for cognition itself—until we forget that it’s a (heavily reductive) metaphor and fall into Shotter’s trap.

occasionally, by attempting to layer these different sets of links and nodes over one another to create ‘multidimensional’ networks). Claims about ‘scalability’ notwithstanding, network theory has the tendency to ignore the fact that every ‘node’ is a network all its own, with its own very fuzzy boundaries and interpenetrations, and (despite pretensions to quantifiable exactitude) what counts as a node is more or less arbitrarily determined by the assumptions and goals of the researcher: *look* for orgone and ether, *find* orgone and ether. This situation exemplifies Garfinkel’s (2008, p. 127) warnings about ‘the automatic interpretation’ of ‘the fallacy of imposed order’ in which the researcher, “is hardly aware that in seeing he has ‘seen’ what his empirical constructs told him he would see.” This is almost inevitable given the disturbingly under-theorized notion of a ‘link’: that which constitutes the borders and boundaries, the lines connecting the points that make up the networked space, can be *anything*. A ‘connection’ can be *any* commonality among ‘nodes’. This can and has uncovered some very interesting and incredibly insightful and useful mathematical patterns in a variety of social phenomena, a fact well-exploited by a number of savvy practitioners since the 1990s.⁵⁹ However, network theory relies on an extreme binary (or, at best, a triadic -1, 0, +1) reduction (inherited from the graph theory from which it sprang), and beyond extremely narrow and delimited areas of observation, the results (in the examination of social behavior, at least) are often unsurprising—another empirical social science method of ‘proving’ the obvious.

But this doesn't make network theory or methods unimportant or dismissible. The reduction of social interaction to a sea of data-points constantly surveilled across a range of communicative and geographical spaces—quite often simultaneously—by telecommunications

⁵⁹ A number of good popular introductions to network theory appeared in the early 2000s, including Barabási (2002), Buchanan (2002), Strogatz (2003), and Watts (2003).

corporations, governmental security services, and others using internet technologies, reduce, analyze, and process all of our moment-to-moment (physical, spatial, electronic) networked interactions, reducing *us* to data-points in the process. Stone (1995) discusses such networks as “location technologies” that “locate” and “name” (i.e., identify) individuals in relation to various disciplinary and disciplining social structures, “fixing” our places in various hierarchical social spaces, authorizing (or not) and legitimizing (or not) our daily activities and lives while simultaneously defining the spaces of our interactions (geographical and otherwise) for needs other than our own and potentially counter to our individual or community interests and well being. Quite the opposite of having “no sense of place,” the technologies and technological objects, such as mobile phones, that function as intimate parts of our daily lives, that are physically with us wherever we go, provide those with access to their data the power to define the identity categories that subsequently define our social ‘places’. The mere possession of such a device serves as an indicator of a variety of identity diacritics and positions the owner (who might be more properly understood as the ‘owned’ in this relationship) in a specific proprietary space of interaction and constraint. Without a significant level of skill, training, and access to the appropriate tools, we are rarely able—and increasingly *unable*, despite skill, training, and tools—to do with our technologies anything but what they allow us to do. Control, in this sense, consists of the power to define spaces of interaction both by authorizing physical and social spaces and how people can interact within those spaces, and by constraining the ability to act to within specified parameters and conditions.

These spaces are not merely empirical constructs or theoretical abstractions. Lemos (2010, p. 406) discusses “locative media” as “a set of technologies and info-communicational processes whose informational content binds to a specific place,” while Farman (2012) provides

case studies of a variety of new media art projects and performances making use of these technologies. Farman rightly criticizes many new media artists and collectives for (sometimes willfully) failing to acknowledge the implications of the ways in which such technologies interpellate us as users, constantly monitoring our activities and movements (with the help of US-government controlled GPS satellites) and for uncritically entering partnerships with corporate sponsors with questionable interests in the surveillance of “consumer behavior.”

Locative technologies are, therefore, important from two perspectives. The first is their ability to define our physical spaces of interaction—to affect how we understand our location in geophysical spaces of the contemporary connected world. Google Maps, for example, extends (in McLuhan’s sense) our biological sensory apparatus—and therefore our cognitive apparatus—out into our now digitized, mediatized, and networked physical environments. Farman offers a poignant description of such distributed cognition, made apparent—as so often is the case—in its breakdown:

I loaded a map on my phone, hit the button that would request my location, and noticed the blue dot that located me at an intersection. I looked at the street corner signs, which did not match the place that the map located me. [...] What struck me most was the feeling of displacement I had until the map lined up with my physical location. I had an odd anxiety about being lost but I couldn't quite figure out why. It dawned on me that as I typically move through a new place, I use my mobile device to inform me of the context of my location. The “virtual” world of the mobile interface deeply affects the way I move through my everyday life. I savor the context-aware information my mobile device provides me and, when the representation of my environment on my device does not match up with the material space around me, I feel that one of my lenses to the world has been broken. (Farman 2012, p. 35-36)

Technologies, especially networked location-based and location-aware technologies, play an increasingly important part in not only defining our relations to the physical world, they are

also having an increasingly important impact on our individual psychological and even phenomenological understandings of the spaces we occupy. This is powerful. But the network metaphor has a tendency to focus on nodes (reductively) and links (arbitrarily) while essentializing the power of the network itself and ignoring the larger power structures that manipulate and constrain interactions within it.

If the first perspective on locative technologies is that of our relations to and in physical places, the second then is how we are located in overlapping and contiguous social spaces. Besides determining our ‘location’ with respect to structures of power, the ostensible value of locative social media, such as for example, something like FourSquare, is precisely to locate us in relation to our social spaces. In this respect, Farman again provides an eloquent description:

location-based social networks offer a form of intersubjective embodiment that gives participants a sense of social proprioception: a sense of embodied integrity that is aware of the self's place as that which is always already situated in relationship to the location of others. I know where I am (and *how* I am) because I am always relating to the location of others. The self's identity extends beyond the immediate context and encompasses a much broader socio-spatial sphere. (Farman, 2012, p. 27)

Farman, here, takes us towards a more phenomenological conception of embodiment to which I will return. For now I simply want to point out that the reductionist social network metaphor, while being wonderfully visual and deceptively simplifying, is not, on its own, an adequate frame for the complexities of the physical, social, and psychological spaces we now enact and inhabit through the use of networked technologies. Social space encompasses far more than the attenuated ‘links’ among arbitrary ‘nodes’ acknowledged by the given network—and these are the *real* metaphors here: ‘links’ and ‘nodes’ that are reified into metonymic patterns of ‘connection’. Those patterns subsequently have a powerful effect on how we (are able to) understand, enact, and inhabit the social spaces that the network synecdochically models. What

makes the network an important concept is its material instantiation in technologies of control: not merely as a compound metaphor itself (links, node, connections), but as a basis for imposing the determining metaphors that condition the social and informational spaces in which we live and in which we are legitimized and authorized to act, or *not*. The implications for control—in who or what gets to define for us how we are ‘located’, in Stone's sense, and interpellated in the spaces through which we move and in which we live—are questions we have only recently begun to address with any sophistication.

Stepping back, there is another related set of metaphors that often encompass and subsume space-as-container metaphors, as well as space/network metonymic-metaphoric complexes (all of which still rely upon a fundamental understanding of communication as transmission *through space*). These are metaphors of technologized communication spaces as more or less complete or intermingling and overlapping environments or geographies. Crang & Thrift (2000, p. 9), for example, evoking Virilio, point to “the velocity of information bombarding individuals, but also [...] the shift between individuals moving through informational space and information moving through individual space.” These are metaphors of (informational) space as ‘fluid’ (which, for current purposes, would include the metaphor of the ‘cloud’). The most prominent of these is probably Castell’s (2010) “spaces of flows” (versus “spaces of places,” a binary that resonates with ‘public’ and ‘private’ spheres), which is built atop the network metaphor. People, materials, and energies “flow” through the network, understood as a complex global phenomenon encompassing multiple levels of interaction. The problem with “spaces of flows” is the network itself and the concept of information and transmission upon which it is built. As Sheller (2004, p. 39) argues, “taken-for-granted geographical understandings of public and private spheres as *spaces* and *networks* continue to limit the ways in which we

might imagine the dynamics of public formation.” The network is inevitably an over-reduction of complex and chaotic phenomena to a set of arbitrary points. Networks give us (sometimes valuable) description; they do not give us reasons or explanations—they do not address but assume motivation for action, reaction, and interaction, from which causality is sometimes then extrapolated (e.g., as the influence of social networks). Sheller (2004) provides an overview of a variety of prominent metaphors of “liquid sociality,” including Castell’s (2010) “space of flows,” Urry’s (2000) “global fluids,” Bauman’s (2000) “fluidity and liquidity,” Graham & Marvin’s (2001) “liquefaction of urban structure,” and White’s (1992) “gel.” Discussing White specifically, she writes,

Whereas networks connect smaller units into larger entities, and such entities in turn form their own networks which constitute still larger social organisations, a gel is something in which such levels are not distinct [...] Whereas a network implies clean nodes and ties, then, a gel is suggestive of the softer more blurred boundaries of social interaction. It also challenges our notions of scale, boundary, and structuration [...] (Sheller, 2004, p. 79)

This “decoupling of nodes and scales” is roughly indicative of the “fluid space” metaphors more generally. And this certainly has value. However, like the network metaphors from which they derive, ‘liquid’ space metaphors are still more descriptive than explanatory. Contra Sheller, they may be more “accurate” or “realistic” descriptions of complex social interaction, but they still seem to leave little space for agentic action: things happen to people and materials *in* networks and liquid spaces. There seems to be far less emphasis on the active enactment of those spaces by agents and agencies who, ultimately, constitute these material formations.

The network as a space defined by Cartesian points and lines (nodes and links) emerges directly from the understanding of communication as the transmission of information—from

point to point across ‘space’. Given these assumptions, space exists, in and of itself, as a potential container of objects. But there is a problem here: again, ‘space’, as such, does not exist. As Buckminster Fuller (1970, p. 61B) pointed out long ago, “Space is a meaningless term. We have relationships, but not space.” Space is not *given*, it is *embodied* and *enacted* (see e.g., Lefebvre, 1991 [1974]; Tuan, 1977; Massey, 1994; Hansen, 2006; Shen & Khalifa, 2008; Arminen & Weilemann, 2009; Weiner, 2011):

It would be better to approach space as a verb rather than a noun. *To space*—that's all. There is neither space ‘behind’ something, functioning as a backcloth, ground or continuous and unlimited expanse (absolute space), not space ‘between’ something, as either a passive filling or an active medium of (ex)change (relative, relational, diacritical, and dialectical spaces). There is just spacing (differentials). [...] Space is immanent. [...] Space is what happens and takes place. (Doel, 2000, p. 125-126)

As phenomenologists, cultural geographers, semasiologists, and others have been explaining for quite some time, space *happens* in interaction, whether that interaction takes place through physical, bodily mobility in the articulation of movement and gesture, or through mediated communication across geographical distance and/or asynchronous interaction in the articulation of meaning. *Space* is itself a metaphor. And in this sense many different kinds of spaces are continuously enacted simultaneously, at a variety of different ‘levels’ of interaction, by a variety of different forms of agency. Spaces happen and are made for reasons and in pursuit of goals. Spaces, both *like* ‘signs’ and *as* ‘signs’, are *intentional* and *motivated*. Space as a set of relations—whether geophysical, psychological, sociocultural, or technological—is necessarily and inescapably *territorialized*.

At a basic biological level, the relation of ‘territory’ (e. g., Bateson, 1972) to communication and interaction is obvious. As Edward Hall (1966, p. 103) argues, “The territory is in every sense of the word an extension of the organism, which is marked by visual, vocal, and

olfactory signs. Man has created material extensions of territoriality as well as visible and invisible territorial markers.” However, at this socio-cultural-technological level, we need a better understanding of how technological formations and social agents (not always human—nor even biological) generate and enact the spaces in which we live and in which we are constrained. The ‘network’ ‘locates’ and ‘contains’ us, interpellates us and herds us. And network theory reminds us that lack of centralized control is not an *absence* of control. As Matt Riddley (1999) points out in a different context, “the world is full of intricate and cleverly designed and interconnected systems that do not have control centers.” To return to the political and ethical implications of our understanding of communication, interaction, and information, if we do not critically examine, and when necessary contest, the enactment of the territories in which we have no choice but to live (i.e. be ‘placed’ and ‘located’ in relation to others so ‘placed’ and ‘located’), we abandon those enactments of space to motivations and intentions that we may not share or may have no place for us.

Spaces of communication, and the metaphors that we use to understand them, are difficult to get a grip on precisely because spatial cognition is so fundamental to human being. We naturally understand *any* set of relations in spatial terms. We naturally understand territories and ‘zones of contact’ (or ‘stages’ of interaction, or what Kendon, 1990, calls ‘transactional segments’, etc.), though dynamic, as unified, confined, contained spaces with borders and boundaries to defend. We therefore naturally understand spaces of interaction and communication as unified, confined, and contained. But they’re not, and neither are geophysical spaces—borders are *built*. Spaces and places are territorialized; spaces and places are both emergent and enacted in communication.

Spatial orientation is so fundamental a feature of what we consider to be reality, [...it...] is the conceptual groundwork on which intelligent intersubjective relations with other

people(s) are based. To put the matter bluntly: talk of spatial orientation (and to any of the other deictic categories, i.e. direction, reference, location, and force) means that we conceive of human movements as acts—that we analyze them as action signs, a phrase from our [semasiology] technical vocabulary that is a marker for all of the notions about hierarchy, values, and so on [...] What this means is that we have to conceive of human act/actions as embodied intentions and that we have to be able to see a lived space as an intentionally achieved structuring [...] The spaces in which human acts occur are not simply physical spaces. They are simultaneously physical, conceptual, moral, and ethical spaces. (Williams, 1995, p. 51-52)

In face to face interaction, the role of space and space-making is obvious. In conversation “speakers continuously set up spatial distinctions and relations by way of their gestures and use these spaces to structure the discourse” (McNeill & Pedelty, 1995, p. 65). As Weiner (2011, p. 190) notes, “because of its irreducibly material qualities, talk occupies space, and makes space by its movement and circulation.” But this is also true of written communication: “We always write from a place, and our writing itself creates spaces” (Rice, 2012, p.12). And it is just as true, therefore, of mediated spaces: “Computer-mediated communication is, in essence, socially produced space” (S. Jones, 1995, p. 16). In digitally mediated and networked communication, however, the points and lines of the network are typically so abstracted from the experience of physical space that we are directly confronted with the basic metaphor of space itself, hence Jones continues, “In cyberspace, spatiality is largely illusory (at least until Gibson’s accounts of its visualization are realized).” The Gibson referred to here is *William* Gibson, the science fiction writer whose use of the term ‘cyberspace’ was widely adapted as an idealized description of digital interactive spaces (see Dalton, 2014). But having been immersed in reading on visual perception and cognition (as well as the language of ‘affordances’ adopted by media researchers) I first read that as *James* Gibson, and then chuckled. Switching William for James (to be

discussed presently) undercuts much of the argument being made about mediated, socially enacted spaces being different in kind from other spaces of relations or ‘space’ as generally perceived. ‘Cyberspace’ may be illusory, but so is ‘space’ itself if ‘it’ is understood as a ‘thing in itself’⁶⁰: there is no ‘cyberspace’ because there is no ‘space’.⁶¹

Spaces (and places), as enactments, are spaces of agency: “There is no such thing as space or time in a simple sense. Time and space are conceptual, moral, and ethical before they are physical” (Urciuoli, 1995, p.193). Again, space as such does not exist—a space just is a set of relations, and any set of relations can and inevitably will be (discussed and) understood as a space, including, for example, ‘information spaces’ (e.g., Lueg & Fisher, 2003; Snowden, Churchill, & Frécon, 2004) or intellectual space (Dubreuil, 2015; all of which owe a debt to Lévy’s, 1997, ‘cosmopedia’); even *time* is understood spatially (e.g., a ‘timeline’; see, e.g., Casasanto & Boroditsky, 2008; Vallesi, Binns, & Shallice, 2008; Walker & Cooperrider, 2016). No ‘background’ Cartesian space exists upon which all sets of relations can be mapped—we might go so far as to say that it is the measurement of space and the entailing construct of ‘distance’ that *creates* physical space (a metaphor that then serves as an exclusionary definition

⁶⁰ For this reason, I am not concerned at this point with geographical accounts of digital media, though I have no intention of dismissing this important and growing body of work, including, e.g., Dodge & Kitchen’s (2001) *Mapping Cyberspace* (see also Dodge & Kitchen, 2005) and the work of Paul Adams (2009)—see also Adams & Warf’s (1997) special issue of *Geographical Review* on “cyberspace and geographical space.”

⁶¹ Cosmologists and quantum physicists have to take ‘space’ (or spacetime) as an ontological category—it may not be possible to study or even consider the expansion of the universe or the ‘probabilistic foam’ of the Planck scale and below without understanding space as a thing-in-itself—but the rest of us do not.

deeming other spaces of relations as not ‘real’). McNeill & Pedelty (1995, p. 65) assert that “Although there is but one physical space, there are multiple semiotic spaces” (McNeill & Pedelty, 1995, p. 65). However, even the ‘one’ physical space will be experienced and understood very differently by the different beings in it (who constitute it in their relations with it), and their different perspectives, histories, memories, and related associations and constitutive connections will, in fact, make that ‘one’ space quite different spaces for each of them. Even geophysical spaces are incessantly dynamic—they simply change at spatiotemporal scales that are outside the range of typical unaided human perceptual awareness. Spaces of digitally mediated interaction are not novel in their enactment of space as contingent, relational, and dynamic interaction, they only make these processes more apparent.⁶²

3.1.3 Communication and ‘Space’: Deixis

Our understanding of the world—both physical and conceptual—is firmly rooted in our understanding of spatial relations, which is deeply entwined with both cognition and language (see e.g., Lewin, 1936; Lakoff & Johnson, 1980; Pred, 1983; Talmy, 1983, 2000, 2003; Dinsmore, 1991; Duranti & Goodwin, 1992; Fauconnier, 1994; Ruthrof, 1997, 2000; A. Clark, 1998; Lucy, 1998; Bloom et al, 1999; Gattis, 2001; Lawson, 2001; Levinson, 2004; Thibault, 2004; Carlson & Van Der Zee, 2005; Levinson & Wilkins, 2006; Englebretson, 2007; Fetzer & Fischer, 2007; Tenbrink, 2007; Edwards, 2008; Xu, 2008; Coventry et al, 2009; Auer & Schmidt, 2010; Mix, Smith, & Gasser, 2010; Fetzer & Oishi, 2011; Hickman & Robert, 2011; Kostogriz,

⁶² For a recent illustration of this point see Arora’s (2016) *A Leisure Commons: A Spatial History of Web 2.0*, which compares online spaces and ‘digital commons’ to public parks and other physical leisure spaces, arguing that “In order to understand new digital space, we need to move away from viewing it as technical and see it more as cultural and social space.”

2011; Vasquez & Cooren, 2013; Feinberg, 2014). For, at a fundamental level, as Kochin (2009, p. 83) argues, “To say something is to present it, to point to it, to engage it in what we ought to call pointing, indication,” which is the enactment of a (spatial) relation. The French-trained Vietnamese phenomenologist Trần Duc Thao (1984 [1973]) was the first modern investigator to develop a comprehensive argument that language and consciousness originated in and developed from the indicative gesture⁶³, but this view has been present in one form or another since at least the Pre-Socratic ancient Greeks. (We will return to this idea in Chapter 3.) In linguistics, the spatial and temporal orientational functions of language are understood in terms of ‘deixis’ (from the Greek root which also gave us ‘indicate’ and ‘index’). The term ‘deictic’ “in traditional grammar designates (roughly) linguistic elements which specify the identity or placement in space or time of individuated objects relative to the participants in a verbal interaction” (Hanks, 1990, p. 4). It takes very little consideration to recognize that language as an interactional phenomenon—as a social practice—could not exist, let alone function, without its deictic elements, which include tense (temporal deixis), *prepositions*, determiners (e.g., ‘a’ and ‘the’), pronouns, markers of address (e.g., relational social titles: sir, ma’am), and names, as well as explicit deictics such as ‘here’, ‘there’, ‘now’, ‘then’, ‘later’, ‘this’, ‘that’, ‘former’, ‘latter’, etc. (and also ‘etc.’). Deictics mark relations in space and time (both actual and metaphorical/conceptual), a fundamental function that is inherently embodied:

not only do speakers make *reference to the body* with deictics, but, more interestingly, they make *reference to the world relative to the body*. When speakers say ‘this is it’, or ‘put it over there’, they may identify objective things in objective places with no immediately apparent engagement of the body. But when we realize that the terms ‘this’

⁶³ How the work of a French-trained, Vietnamese Marxist phenomenologist whose work reached the US in the height of the Reagan years could have been overlooked is anyone’s guess.

and ‘there’ are definable only relative to things like an arm's reach or the shared perceptual experiences of interactants within sight of one another, then it becomes clear that the body is indeed engaged. Not as the thing pointed to or categorized but as the origin of the point and the source of categories. [...] Through its embeddedness in deictic reference, the social body becomes a ubiquitous part of the world, and by implication, knowledge of it as well. (Hanks, 1990, p. 14)

Given this fundamental importance of deixis in language, communication, and cognition, the fact that deixis is a surprisingly under-addressed phenomenon speaks to the strength of basic assumptions about language as a ‘disembodied’ system of arbitrary signifiers (‘signs’ as ‘units of information’) discussed in Chapter 1. However, there is nevertheless a strong literature on deixis that developed out of linguistic anthropological investigations, e.g., Malinowski (1923) and Evans-Pritchard (2007 [1940]), and the philosophy of language, predominantly that of Karl Bühler ([1934] see Innis, 1982), a literature that continues to grow (e.g., Bar-Hillel, 1954; Laver, 1968; Filmore, 1997 [1971]; Lyons, 1972; Klima & Belugi, 1979; Weissborn & Klein, 1982; Klein, 1983; Levinson, 1983; Hanks, 1990; Rolfe, 1989; Perkins, 1992; McNeill, Cassell, & Levy, 1993; Duchan, Bruder, & Hewitt, 1995; Farnell, 1995; Uriciuoli, 1995; Glover, 2000; Hindmarsh & Heath, 2000; Marmaridou, 2000; Lenz, 2003; H. Clark, 2005; Zuñiga, 2006; Kragh & Lindschouw, 2013; Stojnic, Stone, & Lepore, 2013; Stukenbrock, 2014; Mount, 2015; Ruthrof, 2015). Recently, attention to deixis has increased along with the development of dynamic, functional, and interactional accounts of language that refute the constraints of more traditional linguistics (e.g., Bickhard, 2007; Hanks, 2014; Fowler & Hodges, in press). The recent interest in deixis (which doesn’t always use the term) indicates a gradually spreading understanding of language as an embodied, interactional, and functional phenomenon *before* it is a symbolic phenomenon. I will argue that deictic phenomena comprise the central functional

elements of both language specifically and communication more broadly, but this requires, first, some discussion of the concept of communication ‘functions’.

3.1.4 Communication as Functional

At a basic, mundane level, communication is inevitably ‘functional’, even when understood primarily in terms of ideal systems of syntactic relations. Communication, as ‘transmission’, in which ‘the problem of communication’ is understood in terms of the accuracy or faithfulness of (coded) transmission, is inherently instrumental, though theoretically apart from any specific message content or context: ‘messages’ are ‘transmitted’ for and received with a purpose (if not necessarily with explicitly conscious intent), and ‘feedback’ shapes and is shaped by immediate function (shaped, for example, by the chosen or applicable ‘channel’). But this generalized instrumentality of ‘communication’ only *points toward* specific, situated functions; it doesn’t describe or speak to them, and it doesn’t really tell us anything at all about human communication, linguistic or otherwise, beyond the assumption of its intentional and ‘coded’ character—whether that code is understood as digital or analogue, technological or semantic/semiotic.

A number of investigative approaches to linguistic communication, in particular, have disputed the practical value of traditional linguistics’ decontextualization of language in favor of “the way people use language (Table 1); that is, [what people] expect to achieve by writing and talking, and listening and reading” (Halliday & Hasan, 1989, p. 15). From this perspective, language is understood to have developed in specific interactional contexts of use and purpose, to be maintained and continually evolve in specific contexts of use and purpose, and therefore to be most fruitfully investigated in relation to its specific contexts of use and purpose (Halliday,

1. Functional Accounts of Language: Categorical Functions of Speech & Language

Malinowski (1923)	LaGuna (1927)	Bühler (1934)	Jakobson (1960)	Morris (1967)	Britton (1970)	Halliday (1978)	Dance (1985)	
Instrumental	Social Coordination	Expressive	Expressive	Information talking	Expressive	Meaning-making	Linking	
Interpersonal	Intellectual	Conative	Conative		Transactional	* Ideational	Mentation	
Social	Regulative	Representational	Representational	Mood talking	Poetic	- Experiential - Logical	Regulation	
Symbolic			Poetic	Exploratory talking		* Interpersonal		
			Transactional	Grooming talking		* Textual		
			Phatic (Metalinguistic)					

2006).⁶⁴ ‘Communication’, in this view, is understood as a broader category that might be equated with *semiotics* (or *semiosis* as processes of meaning-making) but not with *language* as a more specific form of *verbal* communication. The more complex social-interactional instrumentality of language may be based upon or extend the functions of communication, but the two terms (communication and language) are not equivalent or interchangeable—and what exactly constitutes those ‘functions’, for either term, has been a matter of some debate, particularly when these two terms *have* been equated.

One of the earliest modern functional approaches to the study of language and communication can be found in anthropologist Bronislaw Malinowski’s (1923) “The problem of meaning in primitive languages.” Malinowski broadly divides the use of language by Trobriand Islanders into the *pragmatic*, which includes *active* and *narrative* functions, and the *magical*, which encompasses *religious* and *ceremonial* functions. In 1927, Grace Andrus LaGuna (*op cite* Dance, 1985) anticipated much subsequent work on communicative and linguistic functions by

⁶⁴ Halliday & Hasan (1989, p. 15-17) provide a brief historical overview of functional approaches to language, upon which the following is largely based.

positing three general functions for speech communication: the *social coordination* function, the *intellectual* function, and the *regulative* function (for controlling the behavior of others).

Austrian psychologist Karl Bühler (1934), being more concerned with the individual rather than cultural or social functions of language, distinguished between the *expressive*, the *conative*, and the *representational* functions of language. These distinctions are drawn from ancient Greek grammatical and rhetorical categories of the first person (i.e., ‘sender’-oriented, or “expressive”), second person (i.e., ‘receiver’-oriented, or “conative”), and third person (object-oriented, or “representational”). Bühler’s scheme was extended by Jakobson (1960) who added the *poetic* function, oriented towards the ‘message’; the *transactional* function, oriented towards the ‘channel’; and the *phatic* (adopted from Malinowski) or *metalinguistic* function, oriented towards the ‘code’. Jakobson’s three additions show the clear influence of information theory on semiotics (the merging of speech functions with the information/cybernetic theory model of communication), and Jakobson’s model is, in fact, still common in introductory communication and discourse textbooks that rely on semiotic models. Bühler’s functional framework was also adapted to an educational context by James Britton (1970) who proposed the basic functions of the *expressive*, oriented towards speaker’s context; the *transactional*, oriented towards the “participant” or interactant (second-person) role; and the *poetic*, oriented towards the “spectator.” In Britton’s model, these functions form a continuum that he argues is reflected in the child’s development of language beginning with personal expression and gradually extending outward into the social psychological context of interaction (subsequent research, if anything, has reversed this pattern). Animal behaviorist Desmond Morris (1967) developed a somewhat different functional framework for language comprising *information talking*, or cooperative exchange; *mood talking*, equivalent to Bühler and Britton’s *expressive* functions; *exploratory*

talking, an aesthetic or poetic function; and *grooming talking*, a version of what Malinowski had called the *phatic*.

Halliday's systemic-functional grammar draws from Bühler to posit three "metafunctions" of language: the *ideational*, the *interpersonal*, and the *textual* (Halliday, 1978, pp. 36-58). Where Bühler's investigational goals were psychological, Malinowski's anthropological and ethnographic, and Jakobson's broadly communicational in terms of a general semiotics, Halliday's are sociolinguistic, an attempt to understand the nature of the linguistic system through the uses to which language is put: the 'functional' in 'systemic-functional grammar' refers to the function of *meaning-making*. Halliday's three metafunctions are explicitly non-hierarchical, representing three dimensions that are always present in varying ratios of relations in any linguistic act. The *ideational* is the psychological and cognitive function (sometimes referred to as 'presentational meaning', 'experiential meaning', or 'logical meaning'; see Jewitt, 2009, p. 24), corresponding to Bühler's *representational*, but divided into the *experiential* (the 'content' function of language analogous to the psycholinguistic view of language as the "expression" of individual thought) and the *logical* (expressed through recursive syntactical structures). Halliday's *interpersonal* function (or 'orientational meaning') corresponds to a combination of Bühler's *conative* and *expressive*, "because in the linguistic system these two are not distinguished" (Halliday, 1978, p. 48): syntactic form cannot be divorced from semantic content. Language has

served from the beginning not only as our means of information (the ideational function) but also as our means of interaction (the interpersonal function); and the two are inseparably bonded – you cannot have one without the other. Every act of meaning is both construal and enactment at one and the same time. (Halliday 2006, p. 272)

Finally, the *textual* (or 'organizational meaning') "is the function that language has of

creating text, of relating itself to the context – to the situation and the preceding text,” using the broad semiotic concept of a “text” as a bounded symbolic (inter)action subject to interpretation (*ibid*, p. 48). These three metafunctions (*ideational*, *interpersonal*, and *textual*), being applied to more specific contexts or situations (e.g., language development in children) can then be subdivided into further functional dimensions, such as the directly instrumental, the regulatory, the interactional, the personal, the heuristic, the imaginative, the informative, etc. (see Halliday 2006).

Functional approaches such as these provide a means to approach and understand language in terms of what it accomplishes in specific situations given the underlying assumption, shared by Malinowski, Firth, Sapir, Whorf, Jakobson, Kenneth Burke, and many others, that language is, fundamentally, “a mode of action, a way of intervening in social and political processes” (Halliday, 2006, p. 272).⁶⁵ Language as a system of syntactical and semiotic relations is a system of meaning potential, but also a social system in which meaning is generated and maintained in interaction. All of these functional approaches to linguistic communication, even

⁶⁵ Evoking Wittgenstein in particular and cultural studies accounts of language more broadly, Shotter articulates a social constructionist account of language as symbolic action that reflects the general approach: “many of our forms of talk are not primarily used by us to refer or to represent events in the world; that is a secondary, derived function. Primarily, we use words in socially constructing and socially sustaining different forms of life between ourselves. Where the forms of life in which [we] are embedded and which surround us, ‘call’ us into various practices, into certain ways of acting and being, that otherwise we would not exhibit. [...It] is from within such practices that it makes further sense to refer and represent circumstances in our use of words” (Shotter, 1997, p. 477). Deleuze & Guattari (1987, p. 84) argue even more forcefully that “Language in its entirety is indirect discourse. Indirect discourse [i.e., the illocutionary] in no way supposes direct discourse [i.e., the locutionary]; rather, the latter is extracted from the former [...] Direct discourse is a detached fragment of a mass [...]”

when, like Jakobson's, they can be applied much more broadly than to strictly linguistic interaction, privilege language precisely because language serves as a social-cognitive structure for organizing individual experience and expectations. Language may (according to the more psycholinguistically inclined) or may not (according to the more sociolinguistically inclined) be understood primarily as an "isomorphic system of logical relations," but it is certainly "the main form of human semiotic" and an essential component of the social system (Halliday, 1978, p.51). Therefore, the study of the linguistic system—and even the privileging of the linguistic system as the paradigmatic 'code of codes' in the study of communication more broadly—has been justified from a variety of perspectives. However, a wide range of more broadly communicational approaches have also used the label 'functional'.

Dance (1985) reviews several 'functional' approaches to communication, demonstrating that the term 'function' has been applied to the study of communication and language in a variety of ways that are not always logically consistent or compatible. In general, Dance makes a distinction between:

1. 'functions' which can be used as a synonym for various senses of the term 'works'—as in 'this instrument/idea/person/etc. functions/works (i.e., does what it's supposed to do) or doesn't', and
2. 'function' as analogous to a logical or algebraic function—in the sense of 'if this, then that'.

Sociological and communication studies-oriented research—relying on information theory, cybernetics, and systems theory—has typically bound communicative 'functions' to social and organizational roles, which are both highly context-dependent and have a tendency to conflate 'function' and 'purpose' (this might be considered to be broadly true, for example, for 'uses and gratifications' approaches to media studies). In contrast, Dance argues that 'purpose'

implies intention while ‘function’ does not necessarily do so. He therefore distinguishes ‘functions’ from ‘purposes’ on the bases of “1) necessity of relationship (if this, then that); and 2) presence or absence of intent. Functions underlie, and undergird, purposes. Purposes are built upon functions” (Dance, 1985, p. 65). In short, for Dance, ‘functions’ tend toward the algorithmic or mechanical (i.e., cybernetic and systemic ‘functions’) and ‘purposes’ toward the intentional and goal-driven. Given this distinction, Dance (drawing from LaGuna; *ibid.*, p. 67) argues for three (algorithmic or pseudo-algorithmic) functions of language, specifically: *linking* “of the individual with the milieu” (i.e., orientation and relation); *mentation*, “the development of higher mental processes” (i.e., cognition); and *regulation* of human behavior, the latter of which evokes Wiener’s (1963) idea of ‘control’—in the definition of cybernetics as the study of communication as ‘command and control’—as well as Foucault’s *epistemes*, disciplines, discursive formations, and ‘regimes of knowledge’.

Dance’s distinction between function and purpose is astute and valuable (and will be drawn from in Chapter 3), but his focus on the linguistic (and its fundamentally syntactic character) makes his idealistic and narrow Anglo-American philosophical assumptions clear. His rejection of contextually dependent communicative (as opposed to linguistic) functions (e.g., those ‘functions’ bound to social ‘roles’ and therefore classified as ‘purposes’) and unwillingness to engage with intentionality (as ‘purpose’) is part of a general privileging of language (as the ordered exchange of discrete, encoded signs) as the paradigmatic form of human communication, generally. Dance explicitly asserts that

symbolic language always derives from spoken language—although after spoken language has been developed, symbols may well take other forms such as print, graphics, or gestures. It is this ability to render symbols in forms other than vocal that some refer to as nonverbal communication. Actually, such stimuli are nonvocal rather than nonverbal

since they are always interpreted in terms of their symbolic referents. Truly nonverbal communication is best characterized as animal communication. [...] Uniquely human communication is, however, always verbal—meaning always symbolic—and in reality is always rooted in spoken language. (Dance, 1985, p. 72)

This position, particularly the equation of the symbolic with the verbal and the conventional privileging of the symbolic over iconic and at the expense of the indexical, is untenable based on a wide range of evidence from a wide range of fields of investigation (from archeology to neuroscience) involving, among many other things, the evolution of language from gesture. More acutely, in our contemporary highly mediated environment, in which ‘print, graphics, and gestures’ are as ubiquitous as speech, and in which so much human interaction is heavily technologically mediated, it makes even less sense to privilege the linguistic in the investigation of communication generally. Our contemporary sociotechnological milieu provides—and all but mandates the use of—a range of social and (mass) interpersonal technologies that, while making use of or even relying heavily upon language, nevertheless afford a wide range of highly visual, audial, (and increasingly haptic and tactile), nonvocal, nonverbal or extraverbal ‘modes’ and ‘modalities’ that may not be most profitably investigated from a perspective which conceives of language as the exchange of unproblematically discrete messages—as the paradigmatic exchange of ‘information’ in the form of ‘signs’—as the basic methodological assumption. Not only is the ‘nonverbal’ a vital aspect of human communication that cannot be easily or simply reduced to the transmission or exchange of discrete signs as units of information on the traditional linguistic model, but we use communications technologies to accomplish a variety of general communicative—not strictly linguistic—functions that are neither strictly contextually dependent nor limited to (though often limited and shaped *by*) the

‘affordances’ of specific technologies or media and the contexts of their use (more on this to come).

Halliday provides a far more holistic understanding in his systemic-functional grammar. However, as indicated by the term ‘grammar’, Halliday continues to privilege language (as the exchange of signs) as the basic model of communication. This is clear in his subdivision of the *ideational* function (the psychological and cognitive function, sometimes referred to as ‘presentational meaning’, ‘experiential meaning’, or ‘logical meaning’) into two subdimensions of the *experiential* and the *logical*. This subdivision is necessary for Halliday for the simple reason that, being a linguist driven toward the goal of explaining language (as opposed to communication or interaction), Halliday must account for syntax as a psychological (or ‘deep’) structure of cognition. When language is privileged as the paradigmatic form of communication, linguistic (i.e. syntactical and symbolical) structure must be accounted for in order to explain communicative structure (understood as semantic and semiotic structure) of any kind: as described in Chapter 1, *syntax codes semantics through pragmatics*.

This equation of communicative structure with syntactical relations is also, and therefore, an equation of syntactical relations with logical relations, reflecting the conventional linguistic assumption (in various degrees of ideological insistence) that the ‘deep structure’ (understood in terms of a base ‘code’) of language is isomorphic with the categories and relations of formal logic. I am not convinced that this is a necessary or useful assumption (and, to be fair, neither is Halliday). Equating the cognitive and psychological (to say nothing of the emotional) with structures of logical relations all but removes individual agency by confining the communicating individual within over-reaching, static, disciplining structures of thought and behavior that willfully and paradoxically discard the human capacity for change, development, choice, and

learning beyond (perhaps) early linguistic development. Furthermore, the often explicit assumption of a ‘rational individual’ communicator implicit in this privileging all but ignores the inescapably social and interactional character of cognition⁶⁶—which is based upon and exists in normative ideological (social and semiotic) structures no less than syntactical linguistic (logical) structures, the two being mutually constitutive.

Halliday’s *ideational* metafunction represents an attempt to account for the interdependence of the physical, perceptual, and ‘experiential’ with the cognitive, conceptual, syntactical, and (therefore) ‘logical’. This interdependence, however, requires such analytical distinctions (e.g., between perception and conception) only when the ultimate goal is the explanation of *language*—which is itself a ‘structuring structure’—rather than the explanation of the communicational act(s) through which the ‘individual’ is enacted not just *in* but *as* a nexus of social relations. This emphasis on static structure makes accounting for the actual, living, dynamic, socially imbricated ‘individual’ a challenge even more difficult than the explanation of diachronic change in the structures themselves⁶⁷ (the difference, of course, being a only a matter of perspectival orientation since the ‘individual’ and the ‘social’ comprise and co-constitute one another).

Halliday addresses this inescapably social character of communication and language, with the *interpersonal* metafunction, sometimes understood as ‘orientational meaning’. With the goal of understanding or explaining language as the paradigmatic structure of communication, Halliday subdivides the *interpersonal* into the *conative* (the shared, structured meaning *for*

⁶⁶ Deirdre McCloskey is reportedly fond of calling conventional linguistics, particularly of the Chomskyan generative and transformational grammar varieties, a ‘linguistics of the autistic’.

⁶⁷ A point made perhaps most forcefully by Vološinov (1973).

another) and the *expressive*, the two together emphasizing that every act of meaning is both construal and enactment, mediating self and other. One of Halliday's (laudable) purposes here is to contest conventional linguistics' hard division between syntax and semantics—between the ideational structure of meaning and connotation as 'competence' and the pragmatic expression of meaning as 'performance'. However, if we are trying to understand *communication* (as opposed to *language*, i.e. the more fundamental processes of communication that underlie and make possible language), we do not need to separate the *interpersonal* from the *ideational* in this way.

I would like to suggest that we can understand not just language but communication more broadly as 'functional'—with the primary function being, as Halliday argues, the making of shared meaning—but that we can do so without privileging language as a syntactical system (or 'code'). The enactment of shared meaning (i.e., meaning-making) can be understood as the establishment and maintenance (the 'territorialization') of shared 'space' as (perceived, conceived, and enacted) relations. Forms of deixis in language and interaction (i.e., communication), perform this function of space-making. Deixis is how spaces (perceived and conceived, physical and conceptual) are enacted. "The act of making deictic reference [...]," says Hanks (1990, p. 15), is in itself a taking up of a position in the field in which it is performed [...]." Simultaneously, to recognize or acknowledge an act of deictic reference as the taking of a position ('positioning') or a 'stance-taking' is to identify with that space as enacted, even if implicitly or unconsciously, to become a part of it, to contribute to that enactment—even if only to subsequently contest it (de- or re-territorialize it). Deixis marks the boundaries of interactional space, establishes relations within that space, and delimits it as territory by indicating or acknowledging its borders. To grasp the idea of (not only place but) space as enacted meaning

(and vice versa), we must next grasp the concept of mediation, which is the grounding of the metaphor of communication as transmission.

3.1.5 Mediation as Space-making

Mediation is a fundamental aspect of communication of any kind, which is obvious when we insist on understanding communication in terms of ‘transmission’. Transmission requires mediation: from one ‘place’ to another through space. However, even if we relinquish the central position of the idea of ‘transmission’, mediation remains a fundamental concept in the investigation of communication because interaction, as an act(s) of relation, is an act of space-making, whether that ‘space’ is physical or conceptual, social or psychological. However, like ‘function’, the term ‘mediation’ and its relations have been used in a variety of ways that are not always consistent or compatible. Etymologically, to ‘mediate’ is to ‘come between’, ‘to separate’, and the term ‘mediation’ is derived from the Latin *mediatio* meaning ‘intervention’ or ‘intercession’—the *Oxford English Dictionary*, for example, cites St. Augustine and others using *mediatio* to refer to the intercession of Christ between God and man. While ‘media’ and ‘medium’ both refer to a ‘middle’ or ‘mean’, by the 13th century ‘medium’ was used in English to indicate an ‘intervening substance’ and, by the 17th century, in reference to ‘a pervading or enveloping substance in which an organism lives’ (e.g., air, water, earth). ‘Medium’ was used as early as the 16th century, in a quite different sense, to refer to ‘an intermediate agency, instrument or channel’ and by the 17th century to name a ‘medium of exchange’, i.e., money—and, hence, McLuhan’s (1964) discussion of money as the ultimate medium. The ‘media’ of fine art and ‘media’ in reference to communication technologies both emerged in the mid-19th century—as did the role of the ‘spiritual medium’ (e.g., in the séance) and the ‘communication’ that role was

said to perform. This notion of communication ‘from the beyond’ is intimately related to the use of ‘media’ as communications technology (see Peters, 1999). In all of these senses, mediation, media, and medium inevitably imply space—in the more recent sense, specifically, ‘messages’ (or ‘signs’) ‘transmitted’ *from* ‘place’ to ‘place’ *through* ‘space’.

The dependence of communication on mediation also makes clear the obvious fact that both require perception because communication (as ‘transmission’, ‘exchange’, or anything else) cannot happen without reception (which depends upon, but is not identical to, perception). The notions of transmission and reception are, therefore, dependent upon ‘modes’ of reception, which are also ‘modes’ of mediation, both of which depend upon ‘modes’ of perception. It is for this reason that psychologist James Gibson’s ecological theory of visual perception has been widely adapted for the investigation of digitally mediated communication (the ‘modes’ and ‘media’ of which remain predominantly visual). The relationship between an organism’s perception of its environment (i.e., ‘space’ and ‘place’) and, ultimately, its conception of itself and others in that environment, is the basic problem Gibson’s theory seeks to address. As such, Gibson’s (1966, 1986), ecological theory of visual perception attempts to account for the phenomenological enactment of space in terms of the relationship between organism and environment. Gibson has been widely influential in the social sciences, from at least as early as Edward Hall’s (1966) investigations of culture as communication, which was specifically concerned with spatial relations in human interaction. More recently, Gibson’s account of space as an environment perceived as ‘surfaces’ of ‘substances’ in a ‘medium’ offering particular ‘affordances’ for behavior and action has been widely and generally adapted to the study of digital media—particularly by relating (often implicitly) Gibson’s perceived ‘surfaces’ to the ‘screens’ of digital media (e.g., Bearne & Kress, 2001; Hutchby, 2001; Kress & van Leeuwen, 2001; Kress, 2003, C.

Lee, 2007; Neff et al, 2012). What has been seemingly lost or garbled in this adaptation and translation is that Gibson was specifically concerned with how organisms make their way through environments—the enactment of relations in space. A *medium* in mediated communication, for example, is not at all equivalent to Gibson’s notion of an *environmental medium*. For Gibson, animal and environment are co-constitutive: there is no environment (or ‘space’) without something to perceive and enact it, just as the animal exists only within an environment (or ‘space’ of relations)—animal and environment comprise a gestalt. A *medium*, for Gibson (drawing from the 17th century use of the term ‘medium’ analogous to a ‘pervading substance’ or biological laboratory ‘culture’), is therefore a material state (in and of the environment) in and through which the animal is ‘afforded’ means of sensory perception and action. Air, for example, is our (human) ‘environmental medium’,

It affords respiration or breathing; it permits locomotion; it can be filled with illumination so as to permit vision; it allows detection of vibrations and detection of diffusing emanations; it is homogeneous; and finally, it has an absolute axis of reference, up and down. All these offerings of nature, these possibilities or opportunities, these *affordances* as I will call them are invariant.⁶⁸ (Gibson, 1986, p.17-18)

⁶⁸ There are objections to note even here. For example, Shotter (1984, p. 228 fn 1) argues that “No affordance is there, in the environment, completely specified as the affordance it is, before the activity is complete.” If animal and environment are co-constitutive, then no ‘affordances’ will exist “independently of any animal’s activity” (Shotter, 1983, p. 24)—a claim that Gibson makes explicitly: “the affordance, being invariant, is always there to be perceived” (Gibson, 1986, p. 139). Shotter’s objection is perhaps even more applicable to the extensions of the idea of affordances beyond Gibson’s original definition of ‘possibilities or opportunities’ for an animal within an environmental medium. The ‘affordances’ of a technology, for example, are far more difficult to take as given or ‘invariant’, i.e., “an ‘affordance’ is only *specified* as the affordance it is when the activity it affords is complete. The two are correlative: the structure of

While any mode of perception is a potential mode of communication, Gibson's environmental medium is quite different from what is understood as a medium of communications technology. For example, liquid (i.e., water) is a medium, with its own set of affordances, *for aquatic animals*—but *not* for terrestrial animals (“the animal and the environment, remember, are reciprocal terms,” p. 21). For us, water is what Gibson calls a *substance*:

Substances [...] differ in both chemical and physical composition. They are compounded and aggregated in extremely complicated ways and thus do not tend toward homogeneity, as the medium does. They are structured in a hierarchy of nested units. And these different components have very different possibilities for the behavior of animals, for eating, for resisting locomotion, for manipulation, and for manufacture. (p. 22)

Substances, then, are perceived as *surfaces*, and

The surface is where most of the action is. The surface is where light is reflected or absorbed, not the interior of the substance. The surface is what touches the animal, not the interior. The surface is where chemical reaction takes place. The surface is where vaporization or diffusion of substances into the medium occurs. And the surface is where vibrations of the substances are transmitted into the medium. (p. 23)

Where for Gibson, then, space is ‘filled’ with and largely constituted by a ‘medium’ (in the 17th century sense of the term) which ‘affords’ various possibilities of communication (‘reception’ through ‘perception’ of ‘substances’ via ‘surfaces’), in communications and media

the environment and the action within it are specified together as constituting the act done” (ibid, p. 229 fn 1). Again, for Gibson, ‘environmental medium’ and organism are co-constitutive. When applied to digital media technologies, we can only say that the ‘medium’ and the actions it ‘affords’ are co-constitutive. Technological media may constitute ‘spaces’ but they do not wholly comprise the ‘environment’ of the ‘user’ in anything but metaphorical or severely reduced terms.

studies the ‘medium’ of communication and the ‘substance’ of ‘space’ serve separate functions: a ‘medium’ is equated with a ‘channel’ of transmission *through* (but not isomorphic with) ‘space’—the (technological) medium becomes a ‘space’ of its own. In other words, medium, substance, and surface are regularly conflated in the screens of digital media and their ‘interfaces’. In this way the visual character of such media are privileged to such an extent that other aspects of their ‘substance’ are largely unaccounted for or even denied.

This is perfectly consistent with the early understanding of ‘cyberspace’, which was defined by its insubstantiality—it existed as an immaterial ‘non-space’ of ‘surface simulations’. The seeming incompatibility of digital spaces of interaction with lived, physical, environmental space has been a perennial source of consternation and confusion about the ontological character of digitally mediated interaction. Nancy Baym, for example, resists the reification of a disembodied ‘cyberspace’ arguing that

mediated communication is not a space, it is an additional tool people use to connect, one which can only be understood as deeply embedded in and influenced by the daily realities of embodied life. (Baym, 2011, p. 152)

This argument is laudable for its resistance to the idea of mediated communication as somehow ‘immaterial’ and ‘disembodied’; however, it still rests upon a Cartesian ideal of (physical) space as given, which makes the understanding of mediated communication more difficult by once again setting it apart as different in kind from physical interaction (“a different tool”)—even when insisting on mediated communication’s necessarily ‘embodied’ (or spatialized and en-placed) character.

All of these problems are rooted in the basic conceptualization of communication as the transmission of information through space. Gibson’s concept of ‘affordances’ seemed well suited to the description of the instrumentalities of communications media when spaces of mediated

action could be understood as metaphorical extensions of ‘real’ space. But doing so creates problems. First, it conflates communications-media technology with Gibson’s ‘environmental medium’ despite the fact that a technological communications medium (and its ‘technological affordances’) exists within and depends upon the environmental medium and its ‘affordances’ for the animal that exists and acts within that environment (animal and environment being co-constitutive). The technological ‘medium’ is not a medium in Gibson’s sense. Defining it as such conflates what Gibson understood as ‘medium’ with what he specifically distinguishes as ‘substance’ and ‘surface’, the latter in terms of the screens of digital media: the screen as the ‘interface’ between the ‘user’ and the ‘medium’, understood as (insubstantial) ‘substance’ constituted by ‘information’.⁶⁹

Gibson’s distinctions among medium, substance, and surface are designed to explain how an animal makes space in interaction with its (co-constitutive) environment and with other animals and objects that share that environment. Gibson’s ‘affordances’ of a medium are, specifically, forms of an animal’s relations with its environment and the means and capacities by which it enacts that environment (as lived space). The adoption of ‘technological affordances’, however and therefore, eliminates the very purpose of the ‘affordances of an environmental medium’ when ‘cyberspace’ is denied material substantiality of ‘real’ space. Mediated communication enacts space just as face to face interaction enacts space, which becomes clear when a ‘space’ is understood as any set of perceived relations. On this account, Baym’s (2011, p. 152) perfectly valid argument that mediated communication “can only be understood as deeply embedded in and influenced by the daily realities of embodied life” is undermined by a

⁶⁹ In this way, ‘information’ becomes the ‘environmental medium’ and we are back to the universe as a giant computer.

misconstrual of what that ‘embedding’ involves: ‘cyberspace’ *is* a ‘space’ *because* it is “a tool people use to connect.” But that is not to claim that such space is somehow ‘immaterial’, just as ‘physical’ space is not ‘immaterial’—space is not a thing, space is not a substance, *there is no space*.

3.1.6 Space-making & Space Makers: ‘Modes’ of Communication

Communications media are not at all equivalent to Gibson’s ‘environmental medium’, and the ‘affordances’ of technologies point to (sometimes subtly) different things than did Gibson. While Gibson’s environmental affordances are properties of the medium in constitutive relation to the organism, technological affordances are instrumentalities available to a communicator as ‘user’. A technological medium of communication can constitute a ‘space’ of interaction, as a space of relations (among many other such effective and affective spaces simultaneously), without constituting an environment in Gibson’s sense. This may not be much of a problem when, for example, the object of study is precisely those instrumentalities—polysemy is a given, and the same term can do different work in different fields (or even, sometimes, in the same field). However, there is a second problem with the adaptation of Gibson’s theory of perception to the study of communications technology: the typical application of ‘technological affordances’ limits media communications technologies to the role of instrumentalities thereby denying the agency of technology itself—the ability of communications media and other digital technologies to affect the spaces of relations they help to enact.⁷⁰ As the

⁷⁰ In Shotter’s (1983, p. 20) reading of Gibson, this problem is inherent in Gibson’s account of (or lack of accounting for) agency itself: “although, as Gibson sees it, an ecological psychology is sensitive to the dynamic relations of mutuality and reciprocity between living entities and their environments, the beings in Gibson’s world are depicted merely as observers, not as actors, i.e.,

above discussion of locative technologies indicates, however, technological media can themselves be actors or interactants—they both effect and affect our (and their) shared spaces of relations, and we often interact *with* our technologies and devices at least much as we act *through* them.

The insistence on (technological) affordances as instrumentalities derives from the influence of arguments against ‘technological determinism’, or the idea or implication of technological development as cause and society or social and cultural formations as the effect of that technological development, as opposed to societies and cultures shaping the forms and functions of technology. The broad argument against technological determinism has largely become a straw man; few today would take such a narrow and simplified cause-and-effect view of the relationship between technology and society—whichever side is painted as cause and which as effect. Lingering traces and effects of this argument remain, however, in discussions of technology and agency. The basic argument (which McLuhan summarized in 1964) is consistent with the idea that ‘guns don’t kill people—people kill people (with guns)’. To argue otherwise, it is said, is to abandon human agency and intentionality to a naïve determinism (ironic given the deterministic assumptions built into the model of communication as transmission). However, the argument against ‘technological determinism’—or, more specifically, against technological agency—reduces all technology or technological artifacts to the same basic ontological level (of ‘tool’). It has become difficult to argue, however, that human technology and its effects can be

not as beings able to provide for themselves, by their own action, conditions appropriate to support their action’s continuation. They may move about, but they do not act; thus rather than ‘makers’, they are presented merely as ‘finders’ of what already exists. Such a view, I would argue, fails to recognize the peculiar form-producing character of activity in a biological and social world; it fails to assign a proper role to time and to processes of growth and development.”

fully accounted for by human action and intentions, as, again, the preceding discussion of locative technologies indicates.

Given the different senses of the term, operational definitions of ‘medium’ (and ‘media’), as well as of the closely related term ‘mode’, have been highly unstable for reasons having to do both with this problem of agency combined with the problem of defining discrete ‘input-output channels’ of information exchange that are entailed by the understanding of communication as transmission. (McLuhan’s intentional and playful mixing and blending of the different senses of the term ‘medium’ didn’t help either—many, apparently, haven’t fully appreciated the punning.) Part of the reason is historical and practical. Before the development and spread of digital communications technologies, there was little need for the differentiation of information theory ‘channels’ from semiotic ‘modes’ and communications ‘media’. The radio, for example, is a technological medium that implements an auditory channel perceived through the auditory mode. As described in Chapter 1, ‘language’ can be understood in similar terms (particularly when ‘language’ is generalized to encompass any syntactical code system): spoken language can be understood as an auditory medium (or channel) making use of the auditory perceptual mode in a limited set of possible channels (or media, e.g. embodied voice, radio, audio recording), while written language can be understood as a visual medium making use of the visual mode in a variety of possible channels. Here the differences among ‘medium’, ‘mode’, and ‘channel’ are negligible (when not determined by specific investigational purposes). In the case of writing on a chalk board, for example, the chalk-and-board is both medium and channel, understood as (visual) mode of ‘information’ input/output. Human language more broadly, however and therefore, is understood as a ‘multimodal’ ‘medium’ capable of being ‘transmitted’ through the

audial mode, the visual mode (in both written and sign language), and even the tactile mode (e.g., sign languages for the blind and deaf, Braille).

In media studies, therefore, ‘media’, ‘channels’, and ‘modes’ have often been treated as more or less equivalent (or at least as having very fuzzy borders—is the app on my phone a medium, a channel, or a ‘modality’?), and others, especially in or drawing from composition studies (e.g. Murray, 1991a) and literary-critical theory (e.g., Bakhtin, 1986), have used the term ‘genre’ in a similar and related manner (e.g., Medway & Freedman, 1994; Coe, Lingard, & Teslenko, 2002). This general equivalence, however, is often tempered (or ‘modified’) by the use of ‘mode’ as a classification of something intermediate between perceptual ‘channel’ (e.g., vision) and particular medium (as ‘input/output’ ‘modality’, as in book, television, sign language, or painting). Visual ‘modes’, for example, might include *text* and *image* (such ‘modes’ are often set up as binaries that resonate with the underlying distinctions of public and private ‘spheres’ as described above). In this way, distinctions between speech & text and digital & analogue are often described or defined as ‘modes’. The ‘online’ and the ‘offline’ are discussed as ‘modes’ in this manner, broadly analogous to speech & text in comparisons of orality & literacy (e.g., Lai, 2013; Domahidi, Festl, & Quandt, 2014).⁷¹ Slack (2012) explains how a particular set of such ‘modes of communication’ demonstrate the continuing “deep commitment” to the transmission model in communication studies. Even Carey’s (1989) canonical disavowal of ‘transmission’ in favor of a ‘ritual’ view of communication relies to some degree on these ‘modes’ of communication, which Slack argues have become “the backbone of communication studies”:

⁷¹ Studies of ‘transmediation’ draw upon similar broad distinctions between the online/digital and offline/analogue, see e.g., Elwell (2014).

Modes, an approach that we might say extends back to Plato and which to some degree includes Carey himself, distinguishes between three eras (or modes) of communication: orality, literacy (subdivided into print and script), and the electronic. [...] To render the digital intelligible, the field has generally taken one of two positions: either discipline the digital to fit into the modes, or treat the digital as a wholly new fourth era and ignore hundreds of years of communication history and theory. [...] The relevant point is that the variables that have been used to characterize orality, literacy, and the electronic do not seem sufficient to comprehend the digital. [...] In a sense, modes does [sic] little more than shift our attention to a particular component of the transmission model: from the message and its effects to the channel and its effects. (Slack, 2012, p. 145-146)

This speaks, among other things of course, to the ‘affordances’ of different media communication technologies as ‘modes’ and/or ‘modalities’, particularly in multimodal semiotics, which has largely continued to focus on the visual, and the relationship of the visual to the linguistic (i.e., image to text), as well as, increasingly, to the spatial (e.g., Jaworski & Thurlow, 2010; Thurlow & Jaworski, 2011)—the visual sense being the predominant mode of spatial cognition.

These widely varying senses of the term ‘mode’ in the investigation of communication and technology (evident in Chapter 1’s discussion of orality and literacy in studies of digital interaction) can be understood as a confusion or inconsistency about differences and relations among modes of *perception*, modes of *reception*, and modes of (inter)*action*. In the study of communications media, ‘mode’ and ‘modality’ have typically been understood in relation to psychological concepts of ‘channels’ of sensory perception or the ‘informational input’ (which in cybernetics would be discussed as ‘receptor’ systems working in conjunction with ‘effector’ systems) of more or less specific ‘media’ technologies. This is the most common and most relevant source of problems: the conflation of ‘mode’ of sensory *perception* and ‘mode’ of information *reception*. Though the two, at first glance, would seem to be directly related as

‘output’ to ‘input’, these two ‘modes’ account for very different things. When ‘mode’ is understood as a mode of *information reception*, all ‘information’ is equivalent for the reasons explained in Chapter 1. Information is ‘message’ ‘transmitted’ from ‘sender’ to ‘receiver’ regardless of form (hence Walther’s, 2006, claim that “information is information and [...] it can be expressed through a variety of modalities,” p. 466-467). ‘Modes’ of *sensory perception*, however, are not at all equivalent, as a quick look at the first column of Table 2 should make apparent. Because the ‘modes’ of sensory perception are constituted by the percepts they

Table 2. Typology of ‘modes’ of communication. Much of the literature using the term ‘mode’ tends to inflate three different senses of the term, which has led to much confusion in its application. A few attempts have been made to accommodate these differences, including Elleström’s (2010) delineation of “four modalities of media” (the material, sensorial, spatiotemporal, and semiotic aspects of signs) which seeks to account for both the ‘material’ aspects of interaction (reflecting the three types of modes presented here) and the ‘immaterial’ aspects of signs as information. I would argue, to the contrary, that the ‘immaterial’ is an artifact of the myth of transmission. The transmission model is the root cause of these terminological confusions about ‘modes’ (see Chapter 1), and it is important to point out that, despite the temptation, the *mode of reception* should not be aligned with the transmission model’s ‘receiver’ any more than the *mode of interaction* should be aligned with the ‘sender’ or the *mode of perception* aligned with the ‘message’. First of all, communication, as interaction, is inevitably multimodal in all three of these senses. Second, *all* action is *interaction*—even Mead’s (1934) sense of an ‘I talking to its me’. ‘Sender’, ‘message’, and ‘receiver’ are a gestalt that is deeply imbricated in the space of relations the interaction constitutes. Even if sender, message, and receiver could be separated from one another, these three modal forms would be interactional aspects shared by all three. Nevertheless, as Grossberg (1992, p.39) points out, scholars have rarely challenged this assumed “structural gap [i.e., between ‘sender’, ‘text’, and ‘receiver’] which ‘the essence of the communication model; rather, they fetishize it.’”

Modes of (sensory) perception	Modes of (information) reception	Modes of (inter)action
the visual the audial the haptic the tactile the gustatory the olfactory (or biochemical) the kinesthetic the proprioceptive the nociceptive (of pain) the equilibrioceptive the thermoceptive ...	technological media orality literacy - script - print electronic digital digital & analogue online & offline text & image (speech) genre (in text)	Bateson’s (1972) ‘communication modes’ (e.g., play, nonplay, fantasy, sacrament, metaphor) linguistic mood, modality, & modulation (speech) genre (in actual speech or embodied face to face interaction)

or vice versa—is to reduce out the very constitutive character of that information.⁷² The fact that almost any form of information can be analogized to a visual model does not change this fact; it only makes the extent of the problem more deceptive by taking advantage of the dominant human mode of sensory perception (as well as of spatial—and therefore relational, and therefore ‘rational’ [from ‘ratio’]—cognition). This is precisely why attempts to account for multimodality have, with few exceptions, relied on the visual mode of perception: ‘messages’ as ‘signs’ can all be made equivalent and relatable as (units of) visual ‘information’ regardless of mode of reception (consider waveforms or oscilloscopes for the visualization of audial information, or charts and graphs of just about anything). But the dominance of the human visual sense is an excuse not a reason for the attention to the visual mode of perception to the near exclusion of all others.

There is third broad use of ‘modality’ terms that is often used in tenuous relation to the other two (i.e., perception and reception): ‘mode’ and ‘modality’ have also been used to account for functional categories of interaction, such as Bateson’s identification of “communicational modes” including “play, nonplay, fantasy, sacrament, metaphor, etc.” (1972, p. 203). In multimodal and social semiotics, Hodge and Kress (1988), drawing from Halliday, have introduced similar understanding of ‘modes’ of interaction, but in this case based explicitly on

⁷² Technologies for transcoding sensory information, of course, can be incredibly helpful in cases of disability (for example, visual information into audial or haptic information). Such processes, however, are metaphorical; they are not processes of equivalence—the ‘information’ may be equivalent (as ‘information’ transcoded from one mode of reception to another), but the character of the spaces of relation they instantiate and enact (as modes of perception) are not. It is ‘significant’ that almost all such transcoding is pursued to account for visual disability.

linguistic ‘modality’ and ‘modulation’ (sometimes referred to as or in connection with linguistic ‘mood’). As Halliday explains, modality

is the speaker's assessment of probability and predictability. It [modality] is external to the content, being a part of the attitude taken up by the speaker: his attitude, in this case, towards his own speech role as ‘declarer’ [...] and] oriented towards the content that is being expressed. Modulation, on the other hand, [...] is a characterization of the relation of the participant [to the] process – his ability does in fact characterize the participant in question – *Smith can swim* [modulation] is a fact about Smith – reference to permission or compulsion does not. *Jones must swim* [modality] is not a characterization of Jones’ participation in the process but someone else’s judgment about Jones’ participation; and that ‘someone else’s’ is, typically, the speaker. Thus the same forms can be used to express both. When we say that the opinions a person expresses often tell us more about the speaker than about the subject he is pronouncing on, it is likely to be his use of these ‘quasi-modalities’ that we have in mind: his *musts* and *mays* and *shouldn’ts*. (Halliday, 2005, p. 188-189)

Multimodal and social semiotics (as developed by, e.g., Hodge & Kress, 1988; Kress & van Leeuwen, 2006; Kress, 2010) extend these linguistic concepts of modality and modulation beyond the strictly verbal to describe the functional instantiation of probability, possibility, and (most importantly) *normativity* in modes of communication based upon perceptual ‘channels’: ‘modes’ thus become forms of intersubjective world-making and reality-warranting (see also Scollon & Scollon, 2009)—modes not of perception or reception, but of (inter)action. Modes of interaction shape the spaces of interaction they serve to enact, and that shaping is described in terms of modulation (‘objective’ assessment of probability—*Jones can swim*) and modality (‘subjective’ judgment of possibility or obligation—*Jones must swim*). This linguistically derived notion of modality and modulation is thus used to characterize and describe the shaping of interaction and of spaces of relation by modes of communication, which include specific

media-communication technologies: modulation describes possibilities of action (i.e., affordances), and modality describes the relational (and often normative) uses to which those affordances are (or *should/n't be*) put in interaction.

On this account, the available system of 'modes' and 'media' comes to much more closely resemble a constrained and confused version of Gibson's encompassing 'environmental medium'—confusing, specifically, the different uses of 'mode' as form of perception, reception, and (inter)action: the technological medium (as both channel of information reception and space of interaction) shapes and is shaped by the interaction the technology makes possible, which is dependent upon specific 'modes' of sensory perception. As opposed to the 'transmission' of meaning in the exchange of 'signs' as 'messages' (which nevertheless remains implicit in the underlying conceptions of 'modes' and 'mediation'), multimodal semiotics' explicit emphasis on interaction entails that the system of specific 'media' and 'modes' is not, actually, the primary focus of investigation. Like Gibson's environment, 'modes' are understood to be made and constituted through interaction, and thus there is no notion of a modal system outside of interaction—mode, sign-maker, and context are too intimately connected to tear apart. In such accounts, while it is

possible to talk about the affordances and constraints of different media in a general way outside of a specific context [...] from this perspective [of multimodal interactional analysis] this is of little use as it is not possible to generalize in relation to how affordances and constraints are altered as people mix them in specific social actions. (Jewitt, 2009, p. 34)

As this quote indicates, the variety of overlapping uses of terms such as 'medium', 'media', 'mode', and 'modality' speak to the analytical challenges of dividing spaces of interaction into discrete components objectively distinct from the actors involved, particularly

when ‘mode’ can refer to mode of sensory (or signal) perception, mode of information (or ‘message’ or ‘sign’) reception, and/or mode of (inter)action. (The field of symbolic interactionism might even be said to be explicitly based upon the generative conflation of mode of reception and mode of inter-action.) In communication and media studies, the analytical inclination has been to carefully delineate the characteristics of specific media (including, despite the difficulties, language itself), often in terms of their ‘modes’ (of action, e.g., speech, text, or image) and/or ‘affordances’ (as instrumentalities in terms of modes of reception, i.e. modulations). But, as Ronald Scollon argues,

the analysis of the characteristics of objects in the world is not likely to lead very productively to the understanding of those objects as mediational means. This is because the mediational means [...] is not an object but a class of objects positioned within a social practice which has both an external, material existence and an internal, psychological existence in the habitus. More to the point would be to ask: in this or that social practice, is [e.g.,] language or discourse constructed as a mediational means? If so, how is it constituted in the history of practice and in the habitus of the social actors who engage in this practice? Outside of this rather narrowed framework it seems an empty question to ask whether or not language [for example] is a mediational means. (Scollon, 2001, p. 139)

Scollon uses the term ‘mediational means’ to account for what we might understand as technologies or instrumentalities of mediation in the broadest possible sense. He emphasizes that interaction is *always* ‘mediated’, both in the sense of occurring within an ‘environmental medium’ and in the sense of being enacted with and through a variety of technologies and physical objects in lived spaces, and in the form of historical processes, sociocultural practices (Bruner’s, 1966, ‘cultural amplifiers’; see also Cole & Bruner, 1971), and the normative constraints of mundane social relations. Attempting to account for technologies or, for example,

‘literacies’, without accounting for their constitutive social, cultural, and historical practices—as constituted by actors in interaction—is, for Scollon, of little to no value.⁷³

The work of Ronald and Suzanne Wong Scollon has thus inspired another line of investigation that privileges the constitutive orders of discourse in which ensembles of signs are generated and function *in situ* (see, e.g., Norris & Jones, 2005; Jewitt, 2009; Norris 2011). ‘Mediated discourse analysis’ (Scollon, 2001) and ‘multimodal interactional analysis’ were developed in the ethnographic investigation of intercultural communication (Scollon & Scollon, 2000, 2003) and influenced by interactional sociologists Harold Garfinkel and Erving Goffman, and others. Mediated discourse analysis has been adapted to a variety of studies of computer-mediated communication as a form of interactional sociolinguistics. Goddard (2004), for example, adopts mediated discourse analysis to compare the interaction of written and spoken modes of interaction in course-related online chat sessions among students. Marcoccia, Atifi, & Gauducheau (2008) investigate the relationship of physical posture and kinesic behaviors at the computer to instant messaging interaction. Rodney Jones examines the relation of immediate physical surroundings to ICQ interaction (R. Jones, 2004, 2013a), and compares students’ use of computers in home and school settings (R. Jones, 2010), as well as forms of mediated embodied relations in digital media technologies (R. Jones, 2009, 2013b). These investigations of the relationships among physical surroundings, physical constraints, and media use come closer than much other study of digital media to taking seriously the full implications of media as ‘extensions’ of the human sensorium and human effectivity. If they do not quite yet make clear distinctions among modes of perception, reception, and action, they certainly come close by

⁷³ This argument clearly resonates with Shotter’s (1984) contention that an ‘affordance’ is always an affordance *for someone* in a specific context and relative to a form of (inter)action.

explicitly attending to the interrelations among embodied users, material technologies, and spaces of interaction.

The idea of media as “extensions of man” was, of course made famous (or infamous) by Marshall McLuhan (1964), but it was not an original idea. As with so much else related to media and technology, the early information theorists and cyberneticists prefigured such claims, in this case by clearly understanding technology broadly as a means of extending the human ‘receptor’ and ‘effector’ apparatus. John von Neumann, for example,

regarded the computer as a technical device functioning as an extension of its user; it would lead to aggrandizement of the human brain, and von Neumann wanted to push this aggrandizement as far and as fast as possible. [...] In his prewar measurement theory he had viewed the instrument as an extension of the scientist and had emphasized the arbitrariness of the dividing line between the measuring instrument and the person because the instrument expands the observer’s powers of perception. During the war, when working with computers, von Neumann regarded these machines as extensions, supplements to his mental powers. Thus, they too helped him overcome limitations. (Heims, 1982, p. 187-200)

Marshall McLuhan, of course, made a celebrated (and sometimes reviled) career out of elaborating this idea of technologies as ‘extensions’ of the human sensorium. He did so by consciously intermingling and playing with the different senses of the term ‘medium’, arguing in effect that a medium is *both* container (‘environmental medium’) *and* channel of transmission, based, ultimately, on sensory-perceptual ‘modes’.⁷⁴ This is precisely the tension from which his (in)famous slogan ‘the medium is the message’ draws its power. A ‘message’, following information theory and cybernetics, is simply *that which is transmitted* (as, analogously, a ‘sign’

⁷⁴ McLuhan, like Edward Hall, was aware of Gibson’s ecological psychology of visual perception—McLuhan cites Hall (the two were in contact), and Hall cites them both.

in semiotics is *that which is taken as a sign*). A ‘medium’ is that *in* which and/or *through* which a ‘message’ is transmitted. Typically this means specific ‘texts’ (as ‘signs’ as ‘units of information’) transmitted from specific ‘senders’ to specific ‘receivers’. To say that ‘the medium is the message’, however, is to say that the content of a medium is also always *another medium* – along with all of the sociocultural apparatus upon which the ‘transmitted’ medium (as cultural amplifier) relies: the content of email (as containing ‘medium’) is the typewriter; the content of the typewriter is the pen (for the handwritten letter); the content of the pen is the voice; the content of the voice is language, and the content of language is human thought.⁷⁵ This is genius in that it forces an accounting of historical and sociocultural embodied practices of technologies of mediation. However, being based upon the information theory and cybernetic assumptions of communication as ‘transmission’, it is also inherently linear and is precisely the root of the Russian nesting doll account of media and mediated spaces. Such ‘extensions’, therefore, come at a cost: the study of mediation on this account is inherently dendritic, and the tendrils thin as they stretch and spread. Different media can be compared based on their shared roots—the logically prior media that they contain and which they ‘transmit’ or ‘mediate’. All media can,

⁷⁵ And the content of human thought as a ‘medium’ is the human spirit, and the content of the human spirit is God, whence the contained becomes the container—this is where McLuhan’s deep Catholic assumptions are revealed at the heart of his theory, being rooted in the polysemic metaphorical blending of not only medium as environment, intervening substance, and channel of transmission, but also upon the Catholic notion of mediation as ‘intercession’ and ‘annunciation’, drawing from the deep relation between ‘communication’ and ‘communion’.

therefore, ultimately be related and compared as extensions of the human sensorium.⁷⁶ But for that very reason they are difficult to relate to one another except either by comparison in shared roots or tip to contrastive tip.⁷⁷

As a theoretical construct, McLuhan's media theory (and the Toronto School's, more generally) insists upon the social and historical contextualization of forms of mediation, which is an important antidote to overly empirical, decontextualizing analyses of specific technological objects (media) and phenomena (mediation). However, for the same reason, it is also difficult to apply to the investigation of specific objects or phenomena without reducing the phenomena in question to their direct lineages developing from specific sensory-perceptual 'modes' as information-reception modes—hence the continuing emphasis in media studies on the visual and the ongoing struggle to incorporate, for example, the haptic and tactile (sound studies has been only a little more successful so far). The reason this is a problem for the study of interaction—even digitally mediated interaction—is that the human senses are neither as limited nor as discrete as this analytical schemata or the traditional assumption of 'the five senses' would have us assume (see the first column of Table 2). Communication (as interaction), like the life it enacts, does not happen in independent modes of perception or reception. (Keeping in mind that

⁷⁶ Rooted implicitly if subtly in the communion of the soul, the communal spiritual 'body' of the Church, and of Christ as mediator. This classical dualism of sensing body and thinking mind/soul is inherent in McLuhan's entire theoretical apparatus.

⁷⁷ This is the whole point of McLuhan's 'sensory ratios' which, while they are ostensibly 'ratios' (i.e., an account of, at least theoretically, the differential empirical relations of the senses to one another), in practice the 'visual ratio', for example, becomes a way of talking about the visual to the *exclusion* of other 'modes'.

every mode of perception is a potential mode of communication,) Vannini, Waskul, & Gottschalk (2012) provide a visceral example:

every morning I enjoy a cup or two of strong coffee—and not only for a caffeinated jolt to my groggy mind. I genuinely enjoy the total sensual experience of fresh-brewed morning coffee. The taste of the coffee incorporates its smell, but the smell of the coffee I drink is quite different from the tantalizing aroma of brewing coffee, a scent that, in fact, seems to awaken my senses. Even though the two aromas are different, I know that the smell of brewing coffee anticipates and lubricates how I both taste and smell coffee when I drink it. When I am travelling, a morning cup of coffee is not nearly so satisfying. This is partly because, at a restaurant or gas station, I am usually not seduced by the aroma of the brewing process.

The flavor of the coffee also includes the feel of hot liquid. In the morning, it has to be hot. [...] The taste, the smell, the tactile feel of coffee in the morning—all these sensations blend into a total sensual experience in which the whole is greater than the sum of its parts. [...] We all recognize these same kinds of total sensory experience in our lives—those moments of multi-sensuality when the experience of one sense cannot be separated from others. Moreover, these experiences are not exactly synesthesia-like either; we merely experience “the five senses” in ways that are not as discrete as “common sense” seems to imply. In fact, in most circumstances, when I seek to specify a sensual experience, I am rarely able to pin it entirely on one mode of sensing. Can you? Can anyone? Indeed, if it were possible to characterize sensations and feelings precisely, would poetry continue to exist? Would language not work more like math? Would all of the arts not feel like positive sciences? (Vannini, Waskul, & Gottschalk, 2012, p. 5-6)

In the study of technologies of communication and interaction, as with the investigation of any ‘mediational means’, a reduction of the object of study to a specific mode (whether of perception, reception, or action) reduces out the fullness of both the experience and the constitutive possibilities of interaction. This is important. By reducing a technology to, for example, the visual mode, we can easily miss the variety of other functions, effects, and affects

(and possibilities) that the technology helps to enact. We also cannot address or account for the relations among and inter-penetrations of the different modes of action the ‘mediational means’ instantiates. Scollon (evoking both Gibson’s discussion of the negative aspects of environmental affordances and McLuhan’s discussion of sensory ratios) explains that,

tools, whether material or cultural, not only amplify our actions, they also reduce or constrain them in other ways. Furthermore, the tools themselves are not neutral or purely objective but they, in fact, engage in a transformation of our most fundamental psychological and physical characteristics. [...W]hile a stick may amplify my reach, at the same time it reduces my touch. I can knock a mango out of a tree with a stick when perhaps I could not reach it with my hand, but with the stick I cannot feel whether or not it is soft and ripe. [...T]here is no amplification of some dimension without a cost which is brought about through the narrowing range of sensation or other physical involvement.

Taking this argument to the next point with the same example, if I use a stick to ‘pick’ fruit, and if I do this regularly, my muscle structure begins to change through the exercise with the stick. That is, the habitual use of this tool, like the use of the hammer for the carpenter or the Schneider guitar for the classical guitarist, brings about amplifications and reductions not only in the moment of use but overall in the physical and psychological structure of the user. That is, [...] the use of a tool in a series of actions brings about changes in the habitus (Bourdieu 1977, 1990) or the historical-body (Nishida 1958) of the user. (Scollon, 2001, p. 116-119)

To use another, broader example from Scollon, we can understand language—rather than as the basic model of all communication as the exchange of discrete signs as transmitted information—as a mediational means that is multimodal in terms of modes of perception (audial, visual, or haptic), modes of reception (the various technologies of language as enacting forms of orality, literacy, electronic, and digital mediation), and modes of (inter)action (modality and modulation as functional dimensions of linguistic communication). As with any other mediational means, failing to understanding language in situated use leaves us susceptible to a

misunderstanding of or at least a drastically incomplete view of linguistic phenomena as social, ideological, and political practice:

As a cultural tool or mediational means, literacy is viewed, within practice theories of literacy, as a complex of social practices – there are always multiple literacies, not some unitary phenomenon – something that is aggregated over a long period of time within the habitus of individuals, complexly related to society, embedded in various technologies, and positioned within the contestations of power within a society. From this point of view, literacy is not seen as a simple cultural amplifier which increases the user's memory, processing skills, and cognitive capacity. Nor is it seen as the essential and defining characteristic of the person who is literate. It is seen as a mediational means which (1) is acquired over time through an interaction between the habitus of the person and his or her actions in society, (2) affords or enables certain actions such as memory over time, but also (3) constrains or reduces other actions or capacities. As Plato feared, literacy may increase our ability to keep records and thus increase memory over time but at the same time, by producing a reliance on external records, it may well decrease our own personal memory in habitus. (Scollon, 2001, p. 118-119)

Slack (2012, p. 147) argues that “If our goal as scholars of communication and technology is to understand culture and technology and view these through the lens of something we call communication, we must look beyond the special category of media and break away from the disciplinary straightjacket of modes.” Though Scollon's work has been seminal in the development of ‘multimodal’ methods, I would argue that he points to a way beyond the confusion and restrictions of ‘modes’ by attending to ‘mediational means’ broadly understood as ‘cultural tools’ encompassing modes of reception and action in relation to modes of embodied perception. Drawing from Wertsch's (1985, 1991, 1998) extensions of Vygotsky, Scollon posits five characteristics of mediational means:

Dialectical: There is a dialectic between the external (material) aspects of the mediational means as an object in the world and the internal (psychological) structures of the person

as one who has (or is) a habitus for using the mediational means. This dialectic ranges from nearly totally external, objective existence in the case of the novice user of the mediational means to nearly totally internal, psychological existence in the case of the expert. Different mediational means may be themselves positioned differently along this dialectical cline; the multiplication tables are largely psychological, the coffee I buy at the counter is largely external and objective.

Historical: A mediational means is simultaneously linked to a history in the world as an economic, political, social, and cultural entity – coffee is part of a world-wide political economy – and to a history for each person who has appropriated it. This might be my first cup of coffee or it might be something I have daily at this time. Because mediational means embed a history both in society and in the habitus of a person, mediational means inevitably embed the power and authority structures of society.

Partial: The mediational means never fits the action exactly. Only some of the characteristics may be called upon in any specific action. Thus a mediational means affords some actions but this lack of exact fit to concrete actions means the mediational means also limits and focuses that action. Thus the mediational means is transformative of actions that are taken, by both doing and saying more and less than is intended by the users.

Connective: A mediational means connects or links both multiple purposes and multiple participants. The coins I hand the cashier are to purchase a cup of coffee; the coins the cashier receives summate in a daily tally out of which he/she is paid. Same coins, different purpose for the two participants in this action. The coins may also link my own multiple goals – buying coffee, having a conversation, supporting a student-run coffee shop.

Classificatory and representational (not concrete): Mediational means are classes of objects or representations of objects, not the objects themselves. It is not the same cup of coffee I buy each day and not the same coins I hand across the counter. Each day I exchange tokens of the type, coins, and purchase a token of the type, coffee. It is the representation in dialectic with that object which is constituted in my habitus as a

mediational means, not the specific tokens which I use in each separate, specific, and concrete action. This accounts, of course, for the partiality of the mediational means. The mediational means is a class of objects suited to a class of actions constituted within a practice which is located within a habitus. (Scollon, 2001, p. 120-121)

Adapting these characteristics to media-communications technologies reminds us that such technologies (as mediational means) are not of some entirely different order than all of the other mediational means which make up the spaces of interaction we inhabit. They also force us to confront the fact that media, even as instrumentalities, have histories and exist in and as necessarily embodied social practices. Mediational means are, therefore, not simply and merely modes of ‘reception’ (i.e., transmission), they are also always (at least to some extent) normative, disciplining, and political (modes of inter-action): “when the mediational means comes to exert pressure on practice so that actions not in line with the construed mediational means are disapproved for that reason, or the practices that are commensurable are valorized, we might want to speak of this as a sort of standardization or credentialization” (Scollon, 2001, p. 136). Such an account provides a much stronger and more holistic account of mediation than McLuhan and the Toronto School’s more linear (though historical) approach.

Nevertheless, Scollon’s concept of mediational means still insists upon the instrumentality of such ‘cultural tools’. In the theoretical application of the characteristics of mediational means to digital communications technologies, an insistence upon instrumentality can make it impossible to fully account for the actions of such technologies as agentic systems, such as locative technologies—technologies that *act* not only *for* us, but both *with* us and *upon* us. Resistance to the understanding of technologies—which are supposedly, by definition, instruments or tools—as agentic might be tempered by remembering that human beings regularly use other human beings as instrumentalities, which is exactly what allows hierarchical social

systems (and ideologies) to function.⁷⁸ Just as human beings can be tools, our technologies can, and often are, actors in their own right that affect the spaces of relations that they help to enact in *interaction* with and in *reaction* to other actors (both human and nonhuman).⁷⁹

We can account for this by understanding communication as functional, with the primary function being the making of shared meaning as the enactment of spaces of relations. When language is no longer taken as the fundamental model of all communication (as ‘transmission’ or ‘exchange’ of ‘signs’ as units of ‘information’) but as one (very important) mediational means or even set of mediational means among others—and where ‘mediation’ is understood not as the transversal of space but as the enactment and maintenance of space as relations—we can better understand communicative phenomena previously difficult to accommodate in traditional linguistic and semiotic theories. At the end of Chapter 1, for example, the problem of text and context was discussed as being an artifact of a reductive understanding of information: while the ‘text’ (as ‘message’ as ‘sign’ as ‘unit of information’) is typically privileged over ‘context’ (as that which comes ‘with’ the ‘text’), it would be much more accurate to say that it is the ‘context’ (as space of relations) that generates and makes possible the ‘text’. In other words, it is in spaces of relations evolved in historical and social practices that meaning is enacted. “All communication is movement,” argues Kress (2010, p. 115), but we can understand such ‘movement’ not simply as ‘transmission’ across or through space from one place to another, but in terms of mediation as the *enactment* of space as shared or contested territories of meaning. Space (like place) is relations. Mediation is the relating. Mode is the functional characterization

⁷⁸ Cooren (2010) explores this in terms of ‘downstream ventriloquism’.

⁷⁹ Questions concerning ‘intentionality’ that this characterization brings to the surface will be addressed in the next chapter.

of relational action(s). ‘Media’ and ‘medium’, if useful at all, must be very clearly operationally defined or risk the continuing conflation Gibson’s environmental medium with technological media and all of the resulting confusions that entails. Abandoning the term altogether may be the most prudent course. This can be accomplished by appropriating Scollon’s ‘meditational means’, which emphasizes the *means* of mediation (as interaction) with far less temptation to confuse medium as the substance of space with medium as technological apparatus along with the entailing confusion of modes of perception, reception, and (inter)action.

3.1.7 ‘Contextualizing’ as Territorializing: The Functions of Paralanguage & Metacommunication

By understanding communication as interaction, joint action, or co-action (rather than ‘transmission’ or ‘exchange’) and as inherently functional (in the sense of making shared meaning in interaction), a set of phenomena that have been a challenge for traditional linguistic and semiotic approaches to communication (deeply rooted in the idea of ‘signs’ as ‘units of information’) can be reintegrated as space-making functions. For example, even those who would model all communication on language as an arbitrary symbolic and syntactical system acknowledge that communicational phenomena that are not, thereby, technically ‘linguistic’ (i.e. are ‘pragmatic’ as opposed to ‘syntactic’ or even ‘semantic’) are integral to communicative interaction.⁸⁰ Accounting for ‘paralinguistic’ or ‘metacommunicative’ phenomena in terms of discrete symbolic exchange, however, even when investigated as ‘pragmatic’, has been a

⁸⁰ Garfinkel (2008), prefiguring Bateson’s (1972, see Chapter 1) discussion of ‘metacommunication’, argues that attempts to make human communication ideally ‘efficient’ inevitably end up causing ‘deprivation’, misunderstanding, and inefficiency by removing the ‘redundancies’ and the interactional elements that make communication meaningful.

perennial challenge. In strict semiotic terms, the *pragmatic*—as distinct from the *syntactic* and the *semantic*—indicates the interactional functions of the ‘social conventions of communication’ (where, again, ‘communication’ is understood in terms of ‘language’ as an arbitrary syntactical system). For this reason, Peirce described the *pragmatic* as ‘pure rhetoric’ and conventional linguistics has generally tended to dismiss the *pragmatic* as a general characterization of linguistic *performance* (as opposed to linguistic *competence* instantiated in knowledge of the *semantic* as encoded in the *syntactic*). As applied to or aligned with ‘functional’ aspects of communication and interaction, the term ‘pragmatic’ indicates, on the one hand, the mechanics of actual communication processes and, on the other, the purposes, intentions, and goals of communicators or interactants. Both of these senses of the term align the ‘pragmatic’ with the interactively instrumental functions of language. To this point, I have been building an argument for the importance of the pragmatic that is at least on par with the syntactic and semantic for the simple reason that knowledge is always social and intersubjective, and ‘meaning’ is always enacted in interaction through processes of relevance. However, to recall Ruthrof (2000) once again, “once we have declared our master theory of investigation to be language we will find it extremely difficult to discover anything in nonverbal semiotic domains that is not already prefigured in language” (p. 22). Kress similarly critiques such assumptions in terms of the explanatory “reach” or the “extent of applicability” of strictly linguistic approaches to the study of communication:

A linguistic approach is limited to the description of linguistic forms and their relations. As *sociolinguistics*, its ‘reach’ stops, broadly, at the description of *conditions* and *correlation*. A pragmatic approach concerns itself with correlations of *variations of use* with *variations in environments*. That is, variation in meaning is linked to variation in context. Necessarily, the linguistic approach has nothing to say about other modes in making meaning [...] In some sense both linguistics and pragmatics recognize the

presence of other modes – in terms such as ‘*extra-linguistic*’, ‘*para-linguistic*’, *non-verbal*’ or in different kinds of acknowledgment of features of ‘context’. That, however, is a recognition of the phenomena in the same moment as its instant dismissal; a backhanded theoretical compliment: I notice you and you’re not significant enough for me to bother. (Kress, 2010, p. 58-59)⁸¹

Kress admits that this indictment is a “sweeping generalization,” but it is also accurate.

A reorientation away from ‘transmission’ and toward interaction also finds support in speech act theory and in literary theorist Bakhtin (1986) and social theorist Vološinov’s (1973) influential and closely related insistence that the utterance (as the basic unit of communication) is always *addressed*—which we can understand to mean that communication is always *interactional* and managed through processes of attention, relevance, and interest, processes which are never limited to the linguistic or even the visual. Sperber & Wilson’s (1995) influential relevance theory draws from speech act theory to better understand the pragmatics of linguistic interaction, which attention to the relation between ‘text’ and ‘context’ and, ultimately, the individual and the social, points to. Extending Grice’s *cooperative principle* of communication, Sperber & Wilson argue that all interaction is functionally bound to what Grice dubbed the *maxim of relation*, which is simply “be relevant” (Grice, 1989, p. 27). All

⁸¹ This passage is part of a defense of the social semiotic methods developed by Kress and colleagues, whose ‘grammar’ of visual communication has been attacked as itself transposing linguistic models onto visual modes (an attack that is invited by the use of terms such as ‘visual syntax’ in *Reading Images*; Kress & van Leeuwen, 2006). However, the use of the terms ‘grammar’, as well as ‘syntax’, by Kress and his collaborators is closer to Kenneth Burke’s use of the term ‘grammar’ as a general ‘system of relations’ than to a strict linguistic ‘grammar’ of narrowly syntactical relations. Even so, from the perspective of the present argument, Kress’s approach is still too beholden to the semiotic ideal of the ‘sign’ as a marker of a discrete packet of ‘information’.

communication, in whatever form or mode, they argue, involves one communicant gaining the attention of another or others through the implication of communicative intent. The form and manner in which that communicative intent is presented or implied guides the inferential processes required to interpret the intended ‘message(s)’ in relation to a set of relations (material, physical, psychological, social, historical, ideological, etc.). Communication is, therefore, an intersubjective process of the modification of a shared ‘context’ or shared “cognitive environment” (i.e., shared space(s) of meaning): “contextual effects in an individual are *cognitive effects* [; ...] they are changes in the individual’s beliefs” (Sperber & Wilson, 1996, p.265). Not insignificantly, this also makes communication inherently *rhetorical*: to communicate is to interact is to change minds (by changing the spaces of meaning constitutive of those minds⁸²).

Relevance theory is also, therefore, *functional* in that ‘relevance’ is relative both to (“mutually manifest” or shared) ‘context’ as well as to intent, understood as the communicators’ “cognitive goals.” Communicators share a “cognitive environment” (a space of meaning-relations as well as a physical context—even if that physical context is shared via some mediational means) and relevant communication is produced as an ostensive inferable ‘sign’ (or set of ‘signs’) that indicates and implicates an interpretation that is optimally relevant given the perceived set of ‘contextual’ relations. Such signs can be, but are not necessarily, verbal. Though a linguistic-pragmatic theory, relevance theory is perfectly capable of accommodating the ‘nonverbal’ and the ‘metacommunicative’, including gesture, proxemics, chronemics, as well as the modal and tropological (i.e., modes of action, such as metaphor and irony), and interaction

⁸² Not to mention the constitutive dynamic relations of the brains, nervous systems, limbic systems, and endocrine systems (i.e., bodies) that comprise those minds.

both immediate (i.e., face-to-face or synchronous) and mediated (e.g., written or asynchronous).

Relevance theory helps to support the argument that the ‘metacommunicative’ is not ‘meta’-, the ‘paralinguistic’ not ‘para-’: they are, like the ‘context’ they point to, *constitutive*. I do not wish to suggest or even imply that the study of language is not a worthwhile effort, but to point out, again, that the study of language, regardless of the form, is not the equivalent of or equal to the study of communication or interaction. Such conflation of language and communication (mediated by semiotic assumptions), however, tends to be taken for granted, even in the investigation of ‘multimedia’ and ‘multimodal’ interaction. Walther, for example, referring to the strictly textual modes of computer-mediated communication, notes that

to see so clearly for ourselves and in the lives of our colleagues, students, or children, that acquainting, flirting, and coordinating are taking place through language alone, despite pessimism about pure text’s ability to carry it off, is strong testimony to the psychological power of language and the humans who use it. (Walther, 2004, p. 387-388)

As seen in Chapter 1, the study of language in the form of digitally encoded text continues to uncover a wide variety of interesting phenomena, and it is capable of telling us important things about language as a phenomenon (as a meditational means) in the comparative analysis of linguistic forms and ‘media’. But language does not encompass communication or interaction. It is for this reason that Walther’s praise of language here is slightly off the mark. He is equating electronic ‘text’ – or ‘typed’ communication – with ‘language’. But even if we flatten all of the ‘paralinguistic’ and ‘metacommunicative’ elements into the mode of ‘text’ (as mode of reception) and equate them all with ‘language’, we still miss a great deal of the interactional elements that are produced as affordances, functions, and purposes of specific media technologies as components of meditational means in specific social and physical environments and situations.

The difficulty of defining ‘paralanguage’ and ‘metacommunication’ and categorizing their forms (i.e., what counts as ‘message’ and what as ‘metamessage’, what is ‘language’ and what is ‘communication’) is recapitulated in the difficulties encountered in defining and categorizing new media, digital media, and particularly social media phenomena because ‘digital discourse’ defies conventional boundaries by being ‘multimodal’ in the broadest sense, as for example both synchronous and asynchronous, both ‘oral’ and ‘literate’, etc., as well as by inevitably being more than visual (as Rodney Jones’s work, for example, continues to demonstrate). As with language more broadly, in the investigation of mediated interaction we are talking about modes of perception, modes of reception, and modes of (inter)action, all at the same time. From the conventional perspective(s) on ‘digital discourse’, what is to be defined as *interaction* and what as *documentation*? What part of a ‘message’ constitutes, which aspects of a ‘medium’ are, or which elements of a technology enable *expression* and which *representation*? Conventional semiotic and linguistic approaches have severe difficulty fitting contemporary forms of mediated interaction into the available established boxes (e.g., modes of reception and modes of inter-action derived from modes of perception). It is commonly remarked, for example, that

it is especially the expressive and phatic functions of language which have come to the fore in the digital age. This apparently deep-rooted human urge to communicate, to let fellow human beings know of one’s existence is something underlying much private digital communication these days. (Kortman, 2010, p. xxxii)

But this is not a problem generated by new media—the phatic is not ‘new’ as the paralinguistic is not separate from language and communication. These ‘problems’ are entailments, artifacts of a theoretical and methodological orientation that privileges language as a syntactical system for the transmission of signs as units of information over communicative and

interactional phenomena. Language is not the only ‘structuring structure’—nor the only meditational means. It is the most complex and complicated form of communication known, and for that very reason it is a dubious paradigmatic model for *all* forms of communication. There is, in fact, an argument to be made that the supposedly superfluous or ‘meaningless’ phatic function of communication is actually more fundamental than either language or information transmission.

3.1.8 Phaticity as Fundamental

The term ‘phatic communion’ was coined by Malinowski (1923) from the Greek root meaning ‘to speak’ or ‘spoken’ (which also gave us all things ‘phonic’) and was later adopted by Jakobson (1960) to describe, rather than the transmission or exchange of information, the social processes of communication as interactional—as indicated in Malinowski’s use of ‘communion’ rather than ‘communication’. In Malinowski’s original definition and description, phatic communion is “language used in free, aimless, social intercourse.” Because of the ways in which the term has been selectively adapted, the original passage is worth quoting almost in its entirety:

When a number of people sit together at a village fire, after all the daily tasks are over, or when they chat, resting from work, or when they accompany some mere manual work by gossip quite unconnected with what they are doing—it is clear that here we have to do with another mode of using language, with another type of speech function. Language here is not dependent upon what happens at that moment, it seems to be even deprived of any context of situation.⁸³ The meaning of any utterance cannot be connected with the

⁸³ Malinowski apparently also coins the term ‘context of situation’ here. Others (e.g, Robins, 1976; Senft, 2007; Korta, 2008) have noted that Malinowski’s in anthropological linguistics anticipated much of the work in both pragmatics and speech act (and performativity) theory that came decades later.

speaker's or hearer's behaviour, with the purpose of what they are doing.

A mere phrase of politeness, in use as much among savage tribes as in a European drawing-room, fulfils a function to which the meaning of its words is almost completely irrelevant. Inquiries about health, comments on weather, affirmations of some supremely obvious state of things—all such are exchanged, not in order to inform, not in this case to connect people in action, certainly not in order to express any thought. It would be even incorrect, I think, to say that such words serve the purpose of establishing a common sentiment, for this is usually absent from such current phrases of intercourse; and where it purports to exist, as in expressions of sympathy, it is avowedly spurious on one side. What is the *raison d'être*, therefore, of such phrases as, 'How do you do?', 'Ah, here you are,' 'Where do you come from?' 'Nice day to-day'—all of which serve in one society another as formulae of greeting or approach?

I think that, in discussing the function of Speech in mere sociabilities, we come to one of the bedrock aspects of man's nature in society. There is in all human beings the well-known tendency to congregate, to be together, to enjoy each other's company. Many instincts and innate trends, such as fear or pugnacity, all the types of social sentiments such as ambition, vanity, passion for power and wealth, are dependent upon and associated with the fundamental tendency which makes the mere presence of others a necessity for man.

Now speech is the intimate correlate of this tendency, for, to a natural man, another man's silence is not a reassuring factor, but, on the contrary, something alarming and dangerous. The stranger who cannot speak the language is to all savage tribesmen a natural enemy. To the primitive mind, whether among savages or our own uneducated classes, taciturnity means not only unfriendliness but directly a bad character. This no doubt varies greatly with the national character but remains true as a general rule. The breaking of silence, the communion of words is the first act to establish links of fellowship, which is consummated only by the breaking of bread and the communion of food. The modern English expression, 'Nice day to-day' or the Melanesian phrase, 'Whence comest thou?' are needed to get over the strange and unpleasant tension which men feel when facing each other in silence.

After the first formula, there comes a flow of language, purposeless expressions of

preference or aversion, accounts of irrelevant happenings, comments on what is perfectly obvious. Such gossip, as found in Primitive Societies, differs only a little from our own. Always the same emphasis of affirmation and consent, mixed perhaps with an incidental disagreement which creates the bonds of antipathy. Or personal accounts of the speaker's views and life history, to which the hearer listens under some restraint and with slightly veiled impatience, waiting till his own turn arrives to speak. For in this use of speech the bonds created between hearer and speaker are not quite symmetrical, the man linguistically active receiving the greater share of social pleasure and self-enhancement. But though the hearing given to such utterance is as a rule not as intense as the speaker's own share, it is quite essential for his pleasure, and the reciprocity is established by the change of rôles.

There can be no doubt that we have here a new type of linguistic use—*phatic communion* I am tempted to call it, actuated by the demon of terminological invention—a type of speech in which ties of union are created by a mere exchange of words. [...] Are words in Phatic Communion used primarily to convey meaning, the meaning which is symbolically theirs? Certainly not! They fulfill a social function and that is their principle aim, but they are neither the result of intellectual reflection, nor do they necessarily arouse reflection in the listener. Once again we may say that language does not function here as a means of transmission of thought. [...] It consists in just this atmosphere of sociability and in the fact of personal communion of these people. [...] The whole situation consists in what happens linguistically. Each utterance is an act serving the direct aim of binding hearer to speaker by a tie of some social sentiment or other. Once more language appears to us in this function not as an instrument of reflection but as a mode of action. [...]

It is only in certain very special uses among a civilized community and only in its highest uses that language is employed to frame and express thoughts. [...] Even in this function, however, it is not correct to regard language as a mere residuum of reflective thought. And the conception of speech as serving to translate the inner processes of the speaker to the hearer is one-sided and gives us, even with regard to the most highly developed and specialized uses of speech, only a partial and certainly not the most relevant view.

[...W]e can say that language in its primitive function and original form has an essentially pragmatic character; that it is a mode of behavior, an indispensable element of concerted human action. And negatively: that to regard it as a means for the embodiment or expression of thought is to take a one-sided view of one of its most derivative and specialized functions. (Malinowski, 1923, p. 313-316)

We can see in this passage both Malinowski's debt to Saussure (language, at least in its 'highest forms', as the exchange of information in the form of signs) on the one hand, and his refusal to delimit all language, let alone all communication, to the transmission and exchange of information, on the other.⁸⁴ Phatic communion is meaningful precisely *because* it is not 'informative'. Nevertheless, embedded in the current terminology of his time, Malinowski uses the term 'meaning' (in "The problem of *meaning* in primitive languages") to indicate 'information' 'exchanged'. In this sense, then, phatic communication is not 'meaningful'—and this is precisely what Jakobson picks up on in his adaptation of the 'phatic' to the metacommunicative function of language.⁸⁵ However, in the present argument, 'meaning' is far

⁸⁴ In fact, in Malinowski's functional categorization of language (see Table 1), the 'informative' function would almost necessarily be classified as an aspect of the 'narrative' function, which is itself a sub-category of the 'pragmatic'. The marks of Malinowski's own historical 'context' are clear in his use of the terms 'primitive', 'savage', and 'civilized', but we can appreciate his inclination to reach beyond them in his insistence that phatic communion is a basic *human* social action, neither a solely 'primitive' nor 'civilized' phenomenon—though, of course, the 'informative' function would be more extensive in 'civilized' languages and societies and would likely be characterized primarily by textual forms.

⁸⁵ For this reason, Varis & Blommaert (2014, following Senft, 1995), distinguish between Malinowski's original phatic *communion* and phatic *communication*, the latter derived more from Jakobson. For present purposes, the distinction is worth acknowledging, but not worth strictly maintaining: the present argument is that this 'communal' and 'unity'-building function

more than ‘signification’ in the form of ‘signs’ ‘transmitted’ as ‘units of information’—and such a reorientation is at least hinted by the concluding paragraphs of Malinowski’s section on phatic communion where he describes symbolic communication (i.e., ‘information’ ‘transmission’) as one of the “most derivative and specialized functions” of language. If meaning is understood, instead, as the enactment of shared spaces of relations, not only is phatic communion ‘meaningful’, it is *fundamental* and *foundational*.⁸⁶ Phatic communion is *deictic*, socially orientational; it enacts the recognition and acknowledgment of the other, a function without which no successful communication can be effected at all. “Frivolous discussions that are lacking in apparent interest are not always entirely unimportant,” argue Perelman & Olbrechts-Tyteca, “inasmuch as they contribute to the smooth working of an indispensable social mechanism” (1969, p. 17). The phatic function is the function of acknowledgment, of (affective social) identification, legitimation, and authorization (or their opposites)—the acknowledgment of, or the opening move in the establishment of, a shared ‘cognitive environment’, as well as the ‘non-informative’ (affective) maintenance of those spaces, their relational constituents, and their boundaries.

of the phatic is not only present in all communication (as Jakobson established—and was implicit in the cybernetic discussions of ‘metacommunication’) but is foundational to human communication, generally.

⁸⁶ Grossberg (1992, p. 52) offers a related critique of ‘meaning’ (i.e., information transmitted and received): “it is also possible that cultural practices may, in some circumstances, not operate through the production of meaning. For example, music often bypasses meaning altogether to act directly on the body of the listener. Sometimes the production of meaning may be little more than a distraction.”

As Coupland, Coupland & Robinson (1992, p. 209) point out, however, the few investigators who have pursued phatic communication have tended to focus on the negative valuation of the phatic as “referentially deficient and communicatively insignificant” and to “underplay Malinowski's insistence on the human embeddedness of phatic communion” (Schneider, 1987; Nord, 2007, 2008; Sarjanoja, Isomuru, & Häkkinen, 2013; Arps, 2003; Meger, 2012; and Varis & Blommaert, 2014, *inter alia*, are notable exceptions). Rather than following Malinowski, therefore, the study of phatic interaction, typically draws more directly from Jakobson (see Cheepen, 1988; Seft, 1995), who (in his synthesis of information theory and semiotics) maintains that the metalinguistic phatic function of language is, for example, the only function that animals share with human beings, and is “the first verbal function acquired by infants” allowing them “to communicate before being able to send or receive informative communication” (1960, p. 356). In this emphasis on the ‘metacommunicative’ (in opposition to the ‘informative’), the phatic has been invoked most prominently in conversation analyses of ‘openings and closings’ (e.g., Laver, 1975, 1981; Žegarac & Clark, 1999), which are understood as ‘ritualistic’ rather than ‘informative’. Discussions of the phatic character of communications technologies, and digital and social media in particular, have also drawn directly from this understanding of the phatic, which opposes the ‘social’ and ‘interactional’ to the strictly ‘informative’ (e.g., Walther & D’Addario, 2001; Gibbs, et al, 2005; Miller, 2008; Vetere, Smith, & Gibbs, 2009; Krzych, 2010; Wang, Tucker, & Rihill, 2011; Lomborg, 2012; Wang, Tucker, & Haines, 2012; Lövheim, 2013; Jensen & Sørensen, 2013; Burroughs, 2014; Kulkarni, 2014).

On this account, the phatic, at best

is conceived as talk that will be enacted “for its own sake” or “to avoid other problems.” But this approach implicitly validates what has been called the machine metaphor for human communication [...]: communication is a generative mechanism and the machine

must be “humming” if we are not to believe it has broken down. But is it really appropriate to see phatic communion as less than perfect operation of the machine or as communicative tick-over? [...] Goals of talk that relate to building, modifying, or dissolving personal relationships, and, on the other hand, those that have to do with the definition and redefinition of own and others’ identities as interacting beings, are no less intrinsic to the enterprise of talking. [...] It is quite wrong to isolate a discourse mode that embodies relational closeness as some partial or minor act of communication. As Malinowski had it, phatic communion may on the contrary be what is communicatively a most human process. Phaticity may be best seen as a constellation of interactional goals that are potentially relevant to *all* contexts of human interchange. (Coupland, Coupland & Robinson, 1992, p. 210-211)

Phatic communication, in other words, could be—arguably *should* be—considered the basis of *all* communication (as interaction). ‘Informative’ communication simply cannot occur without the mutual acknowledgement of the interactants. ‘Information reception’ may be possible without the ‘sender’ indicating awareness and acknowledgment of the ‘receiver’, but the terms here betray the underlying assumptions of ‘transmission’—and the restriction of communication to ‘modes of reception’: on such assumptions, formulaic, ritualistic exchange is not ‘informative’. But such interactions, in fact, convey quite a lot of incredibly significant ‘information’ (i.e., Bateson’s ‘metamessages’) that establishes the parameters of interaction, including acknowledgment, shared social ‘context’ (or space of relations and meaning). The lack or refusal of phatic communication is a particularly sharp example of an intensely informative and affective social act.

Just as powerfully affective is another component of Malinowski’s original formulation that has been almost entirely ignored: his comment about negative phatic communication, which he describes as “incidental disagreement which creates the bonds of antipathy.” Such ‘bonds’ are observable in typical, mundane interaction with family and friends. There are arguments we have

with those closest to us that serve to maintain those very bonds (including contests of social hierarchy and relational value), and not much else. Such arguments are indicators of shared values enacted in mutually manifest and mutually enacted ‘spaces of relations’—they involve something all interactants feel is *worth* arguing about (if only because such arguments are integral parts of the relationships themselves and are often arguments over matters that the interlocutors very likely would not bother having—or could not have—with people not socially and emotionally close to them). Even in broader cultural and political spaces of relations, negative phatic communication can be understood as acknowledging, contributing to, and maintaining shared identity: Republicans and Democrats may be at each others’ throats, but (at least in rare moments of thoughtfulness or when outside forces interfere) can understand that they are at each other’s throats *as Americans* bonded by arguments over shared ideals (e.g., ‘freedom’, ‘responsibility’). In such cases, the arguments, the competitions, themselves become a social and relational bond. Such ‘bonds of antipathy’ are indicative of both the deictic and the functional character of phatic communication as an intersubjective process of making meaning as space-making.

It is these considerations—the phatic, the deictic, and the intersubjective character of communication as interaction—that make communication inherently rhetorical. And many problems in the field of rhetoric reflect the problems identified thusfar in communication. Recent scholarship in rhetorical theory, for example, has questioned or even undermined the traditional (largely Aristotelian) understanding of rhetoric as instrumental or strategic. Contemporary post-postmodern rhetorical scholars, influenced by theoretical movements such as Heideggerian philosophy of technology, Deleuzean theory, Actor-Network Theory, and New Materialist theories, have sought to understand rhetorical processes as inherent not just in communication

but in our material, embodied interactions with each other and with the world more broadly. As noted briefly in Chapter 1, these contemporary accounts of rhetoric and rhetorical processes push against the traditional understanding of rhetoric as *techne*, which precisely mirrors the understanding described herein of communication as the transmission of information. The cybernetic account of communication, after all, owes its very name to Plato's metaphor of rhetoric (*kybernetes* = 'steersman'; the rhetorician steers or guides or directs the audience by the manipulation of speech). It is from this understanding of the power of rhetoric as a *techne* (both science and art) of controlling people through controlling information transmission and reception that information theory and cybernetics took their understanding of communication as the 'science of command and control'. For this reason, recent movements in rhetorical theory both reflect and are deeply and directly related to methodological arguments in communication studies about the 'transmission' model which, though often acknowledged as outdated and insufficient, obstinately refuses to die or even shift from its place at the heart of communication theory. (It may be that communication studies' emphasis on communication technologies, which rely on the encoding of information, makes the very thought of shifting the solid, comfortable, empirical ground of the 'transmission of information' from the center of the data-driven discipline seem suicidal.) The next section of this chapter provides an overview of rhetoric as 'intentional influence' designed to provide further support to the preceding functional account of communication based in deixis and meaning-making as intersubjective space-making. It will be argued that moving beyond an understanding of rhetoric as instrumental and strategic (*techne*) is additive to moving beyond the understanding of communication as 'transmission' (which is also inherently instrumental and strategic), a combination that will allow a more generative understanding not only of rhetoric and communication, but of information and its relation to

agency, (inter)subjectivity, and ideology. The switch in the following section from communication to rhetoric necessitates a slight shift in terminology, but resonances of key terms and ideas should stand out as wayfinding markers along the path.

3.2 **Epideictic: Rhetoric as Intentional Influence**

Most conventionally, rhetoric is understood as the *techné* of persuasion: in the classical Aristotelian definition, ‘the faculty of observing the available means of persuasion in a given situation’. In the classical Aristotelian formulation, therefore, rhetoric is not necessarily an art of directly *persuading*, but of searching out, finding, and uncovering the *possibilities for* persuading a specific audience at a specific time (*kairos* in all of its connotations and implications, see Miller, 1994). The point is subtle—more akin, perhaps, to Henry James’s advice to aspiring writers in *The Art of Fiction* to “try to be one of those people on whom nothing is lost” than a strict tenet of technical training—but it indicates Aristotle’s attempt to recover *rhêtôriké* as a viable and valuable set of learnable skills from the idealistic picture painted by Plato, particularly in the *Gorgias* and the *Phaedrus*, of a “bad rhetoric” as “sophistry” and the “flattery” of an audience, as opposed to the enlightenment of an audience through an inherently ‘good’ dialectic. Much broader understandings of what we call ‘rhetoric’—a term derived from the root *rheô* meaning ‘flow’ (Walker, 2000), evoking the flow of words and ideas in the speech that constitute the *influence* of the *rhêtôr* (and from which we can better understand the idea of being ‘fluent’ in

a language⁸⁷)—were available to Pre-Socratic philosophers and sophists before and after Plato and Aristotle.

In a similar vein, rhetoric can be understood more broadly as *intentional influence* (with a range of qualifications to be applied to both of those terms in Chapter 3). Since (roughly) the mid-20th century, postmodern and what I will call neo-sophistic⁸⁸ approaches have understood rhetoric in similarly more encompassing ways, which, for example, point beyond language and from *materialist* rhetorics (e.g., McGee, 1980; Greene, 1998; Biesecker & Lucaites, 2009) to visual rhetorics (e.g., Hill & Helmers, 2004; Prelli, 2006) and material rhetorics or rhetorics of design (e.g., Rampley 2005; Buchanan, Doordan & Margolin, 2010). Currently, the bleeding edges of contemporary rhetorical theory (influenced by new materialist theories) expand the notion of rhetoric as intentional influence even further, arguing that not only human beings but non-conscious or non/less-self-aware beings, inert objects, and environments can be understood to be rhetorical in and of themselves, i.e., not as ‘texts’ but as forms of ‘agency’, if not as ‘agents’ or actors (e.g., Rickert’s, 2013, “ambient rhetoric”; see also Shotter, 2013). From this perspective, the field of rhetoric deals with how agents, actors, communicants, or interactants affect one another and are affected by broader spatiotemporal, mediational, and situational factors.

⁸⁷ The connection of rhetoric with the ‘flow’ of thought and language (and hence ‘information’) also provokes a provocative comparison with the ‘flows’ of networks—‘information’ is *rhetorical*.

⁸⁸ Within the field of rhetoric, my use of this term may encounter some resistance as it is associated with the work of specific scholars such as John Poulakos (1983) and several others. More direct connections to this body of work may be beyond the scope of present argument.

Despite these reconfigurations, rhetoric as a discipline—like all disciplines—is tightly bound to conventional structures of understanding. Neo-sophistic accounts have therefore necessitated, among other things, a reconsideration of the traditional Aristotelian ‘genres’ of rhetoric: *forensic*, *deliberative*, and *epideictic*. When rhetoric is understood as ‘the art of persuasion’ – of moving men (in the classical sense: individual, heroic men persuading other men) to action – the focus is characteristically on establishing, through argument, what *has been* (*forensic* rhetoric, favoring *logos*, to determine what is just) and what *should be* (*deliberative* rhetoric, favoring, *ethos* to determine what is good).⁸⁹ Aristotle’s ‘third genre’, the *epideictic*, which evokes and often mobilizes the beliefs and values of the spatially and temporally present audience—with a corresponding emphasis on situationally appropriate style and delivery at the expense of formal argument—has been conventionally treated as a catch-all and often derided category for everything not understood to be explicitly pragmatic or instrumental argument concerning what has been or should be. This attitude is prefigured in Plato’s attacks on the sophists and can be found in the Roman era, for example, when Pliny decried “the ‘unmanly elocution’ and the ‘sing-song oratory’ of the declaimers” in the courts who were influenced by the Greek sophistic emphasis on style and display (i.e., *epideixis*) (Chase, 1961, p. 298).

However, with a broader conception of rhetoric as intentional and affective influence that pushes beyond traditional conceptions of argument and persuasion, the importance of the

⁸⁹ Aristotle names the *forensic*, the *deliberative*, and the *epideictic* the three genres of rhetoric. *Logos* (emanating from language itself), *ethos* (emanating from the speaker), and *pathos* (emanating from the audience) he names modes—and sources—of proof or belief (*pisteis*). (The ancient Greek δειξις [*deixis*] can also be translated as ‘mode of proof’.) All three modes are available to and within each of the three rhetorical genres, but it is clear (at least to me), that each genre favors one of these modes. Many thanks to Robin Reames for prompting clarification here.

epideictic is made more apparent. Such a broader conception of rhetoric and the rhetorical dimension of communication is particularly vital to the understanding of, among other things, the contemporary media ecology where ‘influence’ and ‘affects’ flow in all directions—not only, or even primarily, as top-down direction from authoritative speakers to passive audiences, and far beyond, for example, a ‘two-step flow’—such that even the concept of ‘authority’ (in a culture that reveres ‘celebrity’ for its own sake) is dramatically different from even the era of broadcast media dominance. This section provides a review of the concept of and literature on epideictic rhetoric in order to foreground contemporary reevaluations of the epideictic as the fundamental basis of rhetoric as intentional influence. From there, the epideictic dimension of rhetoric is aligned with the rhetorical dimension of communication as interaction. The subsequent chapter builds upon this understanding of the epideictic to develop a theoretical approach to communication as interaction centered upon a pre-symbolic concept of gesture.

3.2.1 Epideictic: Form or Function?

Traditionally Aristotle’s third rhetorical genre (*epideictic* through *pathos*, in contrast to *forensic* through *logos* and *deliberative* through *ethos*) was characterized as ‘occasional’ oratory of ‘praise or blame’ and was used as a somewhat mysterious, somewhat confused general category of oratory centering on aesthetics, stylistics, and the entertainment of an audience rather than the establishment – or even concern with – the truth (Burgess, 1902; Chase, 1961). As persuasion, epideictic discourse was understood to not necessarily overtly and explicitly move ‘men’ to action but to establish and reinforce shared belief, primarily through the discourse of praise and blame. The establishment or ‘presencing’ of collective consciousness that the epideictic performs thereby serves to uphold and reinforce ‘appropriate’ behavior, ‘heroic’

deeds, and more pragmatic or instrumental discourse (think of the sermon, funeral speech, or commencement address, as well as *Braveheart* or the locker room halftime speech). However, despite the fact that epideictic oratory made up the vast majority of examples used to teach classical rhetoric (even by Aristotle), epideictic rhetoric was not conventionally considered to be ‘truly’—meaning instrumentally or pragmatically, as opposed to ‘merely’—rhetorical. It is what came to be called the epideictic’s attention to and reinforcement of the shared values and beliefs (*doxa*) of an audience that motivated Plato’s earlier denunciation of sophistic rhetoric as “flattery” in the *Gorgias*.

Since the middle of the 20th century, however, the recovery of and increased attention to ancient sophistic texts and ideas has brought about a reevaluation of discourse and phenomena labeled ‘epideictic’ that shapes the argument of this chapter and project. Recent interest in the epideictic is evident in the 21st century scholarship devoted to the topic. Pernot’s (2015) very recent *Epideictic Rhetoric: Questioning the Stakes of Ancient Praise* (an update on and extension of his 1993 2-volume French text) is the only most recent re-accounting of classical epideictic rhetoric, complementing work such as Walker (2000) and Lockwood (1996). Lauer’s (2015) recent review of epideictic rhetoric in *Communication Research Trends* provides a succinct overview of classical Greek and Roman epideictic oratory, as well as a review of contemporary epideictic scholarship. However, Lauer’s excellent review provides only a hint of the extent of recent scholarship devoted to the epideictic.

Recent notable literary-critical and generic rhetorical accounts of the epideictic, for example, include Summers (2001), Sullivan (2003), Pratt (2012), Ramsey (2013), and Hart (2014). The epideictic functions of community ritual and religious discourse have recently been addressed by Smith & Trimbur (2003), Bucar (2006), and You (2006) *inter alia*. Deacon &

WynSculley (2007) investigate the rhetoric of educational technology from the perspective of the epideictic, Sullivan (1994a) discusses education more broadly as epideictic rhetoric, and Rawlins (2014) applies an epideictic orientation to organizational communication. The epideictic dimension of scientific communication and the rhetoric of science and medicine have also been given recent attention, e.g. Sullivan (1994b), Keränen (2001), Casper (2007), and Cuturufello (2015). Efforts to tie neo-sophistic accounts of the epideictic directly to postmodern literary and critical theory have resulted in valuable theoretical work by Rollins (2005), who examines Jacques Derrida's funeral orations, and by Danisch (2006), who approaches the work of Michel Foucault as epideictic rhetoric.

However, the most conventional and prominent investigations of epideictic rhetoric continue to be in political and, especially presidential rhetoric. Most recently, Slavíčková (2013) has analyzed US presidential Memorial Day speeches as examples of *epideixis* in the field of American political communication. Bostdorff & Ferris (2014) explore the epideictic functions of John F. Kennedy's commencement address at American University. Yang (2011) investigates Nixon's speeches and toasts during his 1972 trip to China, and Stuckey (2006) and Prasch (2015) analyze Ronald Reagan's epideictic rhetoric in his "Challenger Address" and D-Day commemoration at Normandy, respectively. The rhetoric of George W. Bush has been extensively discussed with respect to its heavily epideictic orientation by, for example, Bostdorff (2003, 2011), Murphy (2003), and Medhurst (2010). Concomitantly, growing attention has been given to the epideictic dimensions and functions of American Neoliberal and Conservative rhetoric, including Vivian's (2006) discussion of the 9/11 commemorations one year after the attacks, and Asen's (2009) investigation of the rise of the "conservative counterintelligensia" as

an (epideictic) counterpublic. Similarly, Boser & Lake (2014) discuss the epideictic functions of incivility in the rhetoric of Sarah Palin.

Epideictic accounts of general and historical political communication are also becoming more common. For example, Engels (2009) examines the vital role (and epideictic function) of invective in early 19th century America, and Atchison (2012) provides a fascinating example of the function of epideictic rhetoric in his examination of Jefferson Davis's resignation from the Senate on the eve of the American Civil War. Harpine (2004) discusses the epideictic functions of 19th century presidential campaign songs. Leff & Utley (2004) examine the epideictic and constitutive rhetoric of Martin Luther King, Jr.'s "Letter from a Birmingham Jail," and Murphy (1990) examines Robert Kennedy's public response to King's assassination. Murphy (1992) examines epideictic and deliberative strategies of dissent prior to the American military action in Kuwait. Addressing more recent events, McKenna & Waddell (2007) discuss the epideictic function of political statements following the London bombings of July 2005, and Hayden, Waisanen, & Osipova (2013) examine the "spreadable epideictic" of American diplomatic social media discourse around the 2012 presidential election.

In the realm of cultural politics and rhetoric, feminist rhetorical approaches have also begun to address the epideictic dimension. Petre (2007), for example, examines epideictic purposes as invitational rhetoric in women's speeches at the 2004 Democratic and Republican national political conventions, and Bordelon (2010) examines women's commencement addresses at Vassar College from 1910 to 1915 and the identity-shaping functions of epideictic rhetoric in that context. Similarly, the epideictic dimension of African American rhetoric has received much recent attention. White (1999), for example, explores the epideictic functions of African American didactic literature, and Harpine (2010) examines the epideictic adaptations of

African American political communication during President McKinley's 1896 Front Porch Campaign. Danisch (2008) discusses the epideictic goals of Alain Locke during the Harlem Renaissance, and Vivian (2012) investigates Booker T. Washington's rhetoric of 'witnessing' as epideictic. Similar accounts of the epideictic have recently been applied to Latin/Hispanic discourse (e.g. Gonzalez & Hueman, 2003) and Native American discourse (e.g. Roberts, 2004; Richards, 2009; and Morris, 2010).

The epideictic dimension of media and visual rhetoric has been illuminated in Prelli's (2006) important edited collection, *Rhetorics of Display*, as well as in, e.g., McKenzie's (2000) discussion of television talk shows and Pan's (2015) discussion of the epideictic dimension of newspaper journalism. The epideictic functions of organizational and public relations communications are examined in Stahley & Boyd's (2006) investigation of the NCAA's "Stay in Bounds" program, and the epideictic functions of advertising in consumer culture are examined in, e.g., Zeytinoglu (2007) and Blakely (2011). Vigsø (2010) details the epideictic dimensions of extremist political stickers in Norway as "political marketing and tribal demarcation." Finally, Olson's (2013) "An epideictic dimension of symbolic violence in Disney's *Beauty and the Beast*," provides an important discussion of the ideological and culturally indoctrinating functions entertainment media.

There is, of course, a vast and diverse body of historical and recent scholarship devoted to epideictic in the form of political rhetoric and propaganda studies, including for example, presidential and campaign rhetoric, and ceremonial and commemorative oratory, though only rarely is such discourse explicitly identified as epideictic, and a full review of which is beyond the scope of the present argument. Such studies of epideictic form and function are typically understood specifically in relation to instrumental, pragmatic, deliberative, and forensic

purposes. As such, even the more recent work typically focuses on conventional forms of oratory and discourse which can be understood as conventionally rhetorical, i.e. more or less explicitly instrumental. In contrast, I will draw from and, I hope, contribute to a broader argument (following, e.g., Sullivan 1993a, 1993b; Sheard, 1996; Walker 1996, 2000; Hauser 1999; Hyde 2005; O’Gorman 2005; Olson, 2013; and Wells 2014): that the epideictic is, in fact, an integral, functional, communicative dimension at the very heart, the very root of rhetoric, of communication, and of human cognition itself.

3.2.1.1 Epideictic as Function

The more I learn about and consider the epideictic and its conceptual neighborhood and relations, the more I am convinced that a thorough understanding of rhetoric and even human being itself is impossible without grounding that understanding in the space labeled ‘epideictic’. I am not alone in this.

In his work on the roots of rhetoric, Walker (1996, p. 257) argues that the poetic epideictic of the *aoidos*, the singers who propagated oral cultural history and wisdom through myth in the pre-Homeric world, constituted the “primary” form of rhetoric, and that “pragmatic discourse is a ‘secondary’ projection of that rhetoric into the particular forums and dispute-occasions of civic life” (see also Walker, 2000). Hyde supports this argument for the primacy of the epideictic, extending that claim to mundane interaction and, further, giving the epideictic an epistemic priority:

Phenomenologically speaking, truth happens first and foremost as an act of disclosure, a “showing-forth” (*epi-deixis*) or epideictic display of something that discloses itself to us and that, in turn, can be disclosed by us to others in some symbolic manner for the purpose of “knowing-together” (*con-scientia*) what *is* the case regarding some matter of

concern. The assertion and validity of any “truth claim” presupposes the occurrence of such an act [...] (Hyde, 2005, p. 22)

In this way, according to Jost (2004, p. 316), the epideictic constitutes a “mode of realization” that can “establish or reconfigure and even [...] evoke something more basic than conceptual criteria [...] the ‘acknowledgments’ that underwrite our concepts as such.” Drawing on Wittgenstein and Cavell, Hyde (2005) insists that all knowledge is based in such affective ‘acknowledgments’: acknowledgments of the other and the value of the other as audience, as interlocutor, as morally imbricated being. Knowledge, shaped as *logos* and perpetuated as *ethos* arises and is evoked and communicated in the *pathos* of shared understanding.

Thus, the epideictic, argues Walker,

appears as that which shapes and cultivates the basic codes of value and belief by which a society or culture lives; it shapes the ideologies and imageries with which, and by which, the individual members of a community identify themselves; and, perhaps most significantly, it shapes the fundamental grounds, the “deep” commitments and presuppositions, that will underlie and ultimately determine decision and debate in particular pragmatic forums. (Walker 2000, p. 9)

Discourse and communication thus have an epideictic function, O’Gorman (2005, p. 31) argues, when they shape imagined social realities: “the affective ground[s] of deliberation and judgment.” This power of the epideictic is affective and emotional, hence its traditional grounding in *pathos*: “argument can alter emotion because the passions are tied to belief or opinion” upon which judgments are based (ibid). In other words, “Discourse displays an epideictic *function* when it offers visions that are rhetorically ‘foundational’—that is, these visions underlie both belief and desire” (ibid). The epideictic’s orientation toward present *pathos* “brings together judicial time (time past) and deliberative time (time future) in a singular event of the present [...] providing common images for a people and shaping their sense of scale”

(ibid). For O’Gorman, this acknowledgment of the epideictic *function* of discourse constitutes a claim that “even Aristotelian epideictic is not an isolated and wholly distinct rhetorical practice”—not an independent ‘genre’ of rhetoric, but a “primary, central, and primal” function of discourse in general (ibid).

O’Gorman’s emphasis on the epideictic as discursive *function* as opposed to rhetorical *genre* complements an argument made a decade earlier by Sheard:

A multivalent concept of epideictic combined with a more favorable reading of its relation to truth leads to an understanding of epideictic less as a genre or fixed set of rhetorical elements and more as a persuasive gesture or mode we might locate in any number of discourses, including those we might regard as deliberative or forensic. (Sheard 1996, p. 774)

3.2.2 Reevaluating Aristotle’s “Third Genre”

The confusion about the role of the epideictic, resulting from the privileging of instrumental or pragmatic rhetoric, is evident in the development of Neo-Aristotelian rhetorical criticism, which was the basis for the study of rhetoric and rhetorical practice for at least the better part of the 20th century. Therein the functions of criticism are aligned with the three rhetorical genres so that historical criticism (emphasizing *logos*) corresponds to the forensic, and judicial or evaluative criticism (emphasizing *ethos*) corresponds to the deliberative (Black, 1965). The epideictic aspect of rhetorical criticism, however, was designated by Neo-Aristotelian critic Greene (1947, *op cite* Black, 1965) as the “re-creative” and focused on the aesthetic judgment and re-presentation of the object of study (typically a transcript of a speech) as a work of art, serving to illustrate or “bring the discourse vividly before us” (Black, 1965, p. 51) so that it can be judged historically with an emphasis on rhetorical and literary form and style. Where

epideictically oriented criticism, oriented toward the *pathos* of presence, could naturally be expected to be heavily attuned to audience and situation, for the Neo-Aristotelian critic, these elements are purely historical, a matter of record (i.e., data/information), of uncovering the historical truth and *logos* of the rhetorical situation. This aesthetic judgment of the discursive artifact, rooted in the *pathos* with which the discourse was composed by an author/speaker for a specific audience in a specific historical, social, and cultural situation, therefore becomes a matter of tenuous and uncertain relation between the author and the critic through the critically interpreted construct of the author/speaker's intended audience: the rhetorical critic is precariously positioned between intention (of sender) and reception (of receiver), judging the discourse (i.e., message) by the intended (and typically historically distant) audience's aesthetic response. Critical "re-creation," however, "is an act of perception and appreciation; it comprehends an object in the immediate present" (ibid, p. 50), even though the relationships among author/speaker, audience, and critic make available no standard of objective judgment nor for "re-creation." 'Re-creative' rhetorical criticism is therefore deemed methodologically weak and epideictic criticism unviable:

[S]ince this [Neo-Aristotelian] view minimizes or eliminates "re-creation" because of the [assumed instrumentally persuasive] nature of rhetorical discourse, then, it seems, it would minimize or eliminate it for *any* criticism of rhetorical discourse [...] (ibid, p. 46)

This conventional privileging of immediately and explicitly instrumental and pragmatic discourse, based upon Aristotle's three rhetorical 'genres', therefore eliminates any justification for considering the epideictic at all.

This assumed 'weakness' of 're-creative' epideictic rhetoric as a critical method, and the association of the epideictic with instrumentalization of *pathos* and emotion in the service of existing beliefs, led Black to argue for the recognition of a 'fourth genre' of 'exhortative

discourse' to indicate discourse in which "a strong emotional experience does not follow acceptance of a belief, or even accompany it" but precedes or *produces* belief (1965, p. 138).

This 'fourth genre', Black claims, "is that in which the evocation of an emotional response in the audience induces belief in the situation to which the emotion is appropriate" (ibid). This proposal is supported by the contention that the pragmatic rhetoric that is Aristotle's focus relies on the logic of the enthymeme, which functions only when the audience already holds the initial premises of the argument to be true. In 'exhortative rhetoric', in contrast, the production of belief, often through emotion, is precisely the goal. Discussing as an example a passage from abolitionist William Lloyd Garrison's *Words of Encouragement to the Oppressed*, Black argues

What we have in the speech is, preeminently, the language of emotionality. We do not find in the passage arguments designed to provoke an emotional response; rather, we have language that may evoke an emotional response, and we can readily imagine the acquisition or strengthening of a belief following upon this response (Black, 1965, p. 139).

As one of several examples of "the disposition of people to accept, sometimes even to seek, beliefs as a consequence of emotional experiences" (p. 141), Black cites a passage from Festinger's (1957) *A Theory of Cognitive Dissonance*:

The fact reported by Prasad, which puzzled us was that following the earthquake [in India, 1934], the vast majority of the rumors that were widely circulated predicted even worse disasters to come in the very near future. Certainly the belief that horrible disasters were about to occur is not a very pleasant belief, and we may ask why rumors that were "anxiety provoking" arose and were so widely accepted. Finally a possible answer to this question occurred to us—an answer that held promise of having general application: perhaps these rumors predicting even worse disasters to come were not "anxiety producing" at all but were rather "anxiety justifying." That is, as a result of the earthquake these people were already frightened, and the rumors served the function of giving them something to be frightened about. Perhaps these rumors provided people

with information that fit the way they already felt. (*op cite* Black, 1965, p. 140-141)

In the neo-sophistic account of epideictic as a primal, affective function of communication, this power of “exhortative” discourse by which “[e]motion is used to produce belief” (p. 141), requires no ‘fourth genre’. The need for a fourth genre derives from a misunderstanding of the relationship between the pragmatic and the epideictic and the privileging of instrumental rhetoric. If the deliberative and forensic were actually logically prior to the epideictic (if *logos* was the ultimate ground of both *ethos* and *pathos*), then a rhetorical being would be in the position of Richard Weaver’s (1990, p. 1353) “pure logic or thinking machine... an eviscerated creature or a depassionated one,” a thinking machine with nothing to think about and nothing to argue for—and, therefore, not a rhetorical being at all.

The more recent accounts of the epideictic argue that such confusions arise directly from an overweening emphasis on the constraints of genre at the expense of communicative and discursive function. Garver (1994, p. 60-73; *op cite* Jost 2004, p. 314-315), for example, argues that even in Aristotle, “the characteristic method of epideictic is the method of the genus as a whole – arguments concerning the more and the less, maximizing and minimizing,” etc. (hence O’Gorman’s, 2005, claim that the epideictic helps to shape a community’s sense of scale). This, argues Jost (2004, p. 315), is why Aristotle devotes only one chapter of his *Rhetoric* to the epideictic: “in effect, his entire book on rhetoric is given over to it” because, again, the epideictic is the “primary, central, and primal” (O’Gorman, 2005) element of rhetoric as a whole—the ‘now’ from which both past and future are derived. This account of epideictic has important implications for the understanding of Aristotle’s two other pragmatic ‘genres’ of rhetoric and his entire tripartite system.

In the traditional account, *logos* is primary—it is both ‘reality’ and history, encompassing the logic by which reality is known and understood (through dialectic), and the logical, rational speech by which it is conveyed (through rhetoric).⁹⁰ *Ethos* comes in a close second, for what *should be* must be based logically upon (even if negatively or in contrast to) what *has been*—which carries all of the normative implications of ‘tradition’ (which invests ‘character’ with value) and for what is considered ‘realistic’. *Pathos* in this account is, at best, a tool for instilling and motivating normative behavior and ethical action, and at worst, a tool of emotional manipulation—the epideictic becomes ‘merely’ (potentially unethically) instrumental.

In neo-sophistic accounts, this valuation is reversed. The here and now is all that is available (‘present’ to us), and history is recognized to be as much a rhetorical construct as visions of the future. The *pathos* of the epideictic becomes the basis (in contemporary normative constructs and social relations) for dis/uncovering (or ‘showing forth’ – *epideixis*) or even establishing both the *was*-defining *logos* and the logically subsequent *should*-defining *ethos* (see Foley, 2015 for a similar take).⁹¹

More prosaically, previously *logos* was understood as *is* based on *was*. This is the forensic function: to determine the current situation by establishing the historical ‘facts’. Based on simple, direct causation, this conventional privileging of *logos* is also the basis of analytical and algorithmic thought via simple cause and effect (as well as the metaphor of memory as ‘data

⁹⁰ *Logos* is *informative*.

⁹¹ There is also a connection to be made here with Landsberg’s (1995) argument that “Memory [...] is not a means for closure—is not a strategy for closing or finishing the past—but on the contrary, memory emerges as a generative force, a force which propels us not backward but forward” (p. 176).

storage' and 'recall') and what Kenneth Burke (1968) dubs the “scientistic” approach to language: the application of a privileged *logos* generates a ‘universal’ *theoria* (‘way of seeing’). In the neo-sophistic account, however, *logos* becomes *was* based on *is*, and the traditional account is revealed to be the rhetorical move *par excellence*: the definition of the present reality based upon the interpretation of secondhand (or mediated) information, which is itself made meaningful only through the filter of *theoria*.

Likewise, *ethos* has traditionally been understood as *should* based on *was*—history as a morally motivating ethical justification. In the neo-sophistic account, *ethos* is recognized as *should* based on *was* based on *is*: present normative constraints justify and enforce particular interpretations of the past, which motivate and justify calls to future action. Similarly (but without invoking the *pathos* of epideictic), Burke argues that “if one begins with ‘faith’, which must be taken on authority, one can work out a rationale based on this faith. But the faith must ‘precede’ the rationale” (1968, p. 47). On this account, the traditional analytical tenet that ‘you can’t get an ought from an is’ is naively false: the *pathos*-laden *is* is not derived from but actively enacts the *ought* of *ethos*, based upon the rhetorical (suasive), hermeneutical (interpreted), and re-membered (constructed) *was* or *has* (‘always’) *been* of *logos*. It is from the active, ongoing process of the construction of the *is*, the *now*, that the *ought* is derived, just as the *was*, the *past*, is rhetorically and continually reconstructed in terms of the present.

On this account, then, *logos*, *ethos*, and *pathos* become temporally tinged dimensions of the same ideological space, the center of which is of a fundamental, though dynamic, shared presence symbolically and discursively enacted.

3.2.3 Epideictic Discourse is Ideological Discourse

On this account, the epideictic function of discourse and communication, the establishing and reinforcing of shared values, can be identified with ideological discourse. The term ‘ideology’ has gone out of fashion in the 21st century, largely because of its overabundance of meaning, a surfeit of polysemy (see Eagleton, 1991). However, the field of ideas to which the term points remains valuable even if the term itself is often insufficiently precise or problematically multivalent. In Therborn’s (1980, p. 18) formulation, ideologies tell us “what exists and what doesn’t, what is good and what’s not, and what’s possible and what’s not.” These normative functions of ideology(s) can be related to the three Aristotelian ‘modes of proof’ in a number of different ways. In the conventional account, an ideology would typically be considered a *logos*—an *episteme*, a knowledge of *what is* (based, as above on, upon *what was* or *has been*). In practice, however, an ideology could also be understood as a logically derived *ethos*—an explicitly normative *doxa*, “what’s good and what’s not.” Given the account of the epideictic above, however, we can perhaps better understand ideology(s) as derived from the present and presence of *pathos*—a shared way of seeing the world through which social practices and relational forms are enforced and by which individual members of a society or social group are disciplined.

This shared ‘way of seeing’, in fact, constitutes an important element of Aristotle’s distinction between pragmatic and epideictic rhetoric. The three genres of *forensic*, *deliberative*, and *epideictic*, in addition to privileging different *pisteis* (‘modes of belief or proof’) and different temporal aspects of rhetoric, also privilege different audiences. The pragmatic genres of *forensic* and *deliberative* are specifically addressed to an audience tasked with making a specific determination—this is precisely what makes them ‘pragmatic’. The judge or jury, who must

make a judgment about the facts of what has been, and the voter or counselor, who must decide a course of future action, are called by Aristotle *kritai* and their judgment *krisis*.⁹² “The production of such institutional transactions (*praxeis*) of the public business (*pragmateia*) is what defines a discourse as a *pragmatikon*” (Walker 1996, p. 253-254). The role of the epideictic audience, however

is to be not a *krités* but a *theoros*—that is, one who is to make “observations” (*theóriai*) about what is praiseworthy, preferable, desirable, or worthy of belief in the speaker’s *logos*. [...] The *theoros*’ role, in short, is not to make rulings but to form opinions about and in response to the discourse presented. (Walker 1996, p. 253-254)

Oravec (1961, p. 164) explains that the *theoroi* is “one who looks at, views, beholds, contemplates, speculates, or theorizes” and that *theoria* differs from deliberative or forensic *krisis* “in its association with speculation and contemplation as well as judgment and comprehension.” If the function of the epideictic audience as *theoros* is to observe, contemplate, and appraise, we can also recognize that

it is through “appraisal” of the events, persons, and objects in our lives that we define ourselves. We constitute ourselves as good (necessarily) by ranging ourselves against “the bad.” [...] The expression of such judgments reveals the jurors to themselves as much as it evaluates the situation judged⁹³ because the community’s sense of identity derives precisely from their shared set of symbols. The epideictic speech expresses and

⁹² Thus, a ‘crisis’ is a moment that requires a decision be made concerning immediate action. However, in an illustration of the dynamics (and material reality) of meaning, ‘crisis’ has become less a point of decision than a spacetime maintained and managed for profit and ideological dominance. (Thanks to Patricia Harkin for this perceptive ‘point’.)

⁹³ Recall Halliday’s comments above about linguistic modality and modulation and the speaker’s ‘*musts* and *mays* and *shouldn’ts*’.

recreates this identity by expressing and restructuring the symbolic repertoire around special events, places, person, or times. (Condit 1985, p. 291-292)

Murphy (2003, p. 609) points out that Aristotle's canonical definition of rhetoric "grants rhetoric the power of theoretical reflection through inclusion of *theoria* or observation" (i.e., of *observing* the available means of persuasion). O'Gorman (2005, p. 29) notes that the verbal form of *theoros* is *theôrô*, "to view" or "to behold," and he aligns such 'seeing' with Aristotle's *phantasia*, or the active imagination in *nous*, 'the mind's eye', such that "*theôrô* provides both a means of describing the experience of *phantasia* by analogy, and an analytical category to denote the cognitive activity of *phantasia*." Thinking itself is thereby understood as a 'way of seeing': theorizing is the act or process of 'visualizing' the possibilities of what has been and could or should be through the present *pathos* of the active ideology(s), epideictically formulated, established, and propagated.

White provides an eloquent comment on this ideological and un-pragmatic character of epideictic discourse:

Epideictic often does not seem "rhetorical" compared with forensic and deliberative. Its power to persuade and to shape character derives in significant part from its appeal to a sense of identity and to values that are intended to go unquestioned. It may therefore seem genuinely to address nothing subject to dispute or contention. But just because the values and assumptions that it appeals to are accepted by the audience does not mean that there is no matter at issue. To the contrary, epideictic discourse that attains to seriousness and aspires to significance raises an issue that is frequently subject to doubt, namely the issue of *ethos*, literally of character, of who we are, and what and how we are (or should become), of what we value or disdain. The ethical question, the question of character, also inevitably involves the issue of identity, our sense of our selves, what and whom we come from, to whom we belong, and who belongs with us. (White 1998, p. 130)

In this identificational function of what Perelman and Olbrechts-Tyteca (1969) label

“communion” (see Graff & Winn, 2006), we again recognize the epideictic’s affective force of *pathos*. According to O’Gorman (2005, p. 30), “epideictic operates at the ‘primal’ levels of desire and/or emotion. Desire and emotion underlie the assent, commitment, and judgment based on deliberation, but they do not constitute such convictions.” In a footnote here, O’Gorman cites Nussbaum (1994) who argues that

the appetites and emotions in Aristotle are not ‘irrational’ – they may be educated and shaped by discourse. However, even when the appetites and emotions are educated and shaped, they function in specific situations at a ‘primal’ level – that is, as immediate and ‘precognitive’ (in that they are not products of self-conscious deliberation or reasoning). (O’Gorman, 2005, p. 38, fn 17)

These important social-shaping functions of emotion, affect, and *pathos* underlie Kenneth Burke’s association of rhetoric with identification. Burke (1968) insists that language, above and beyond its pragmatic functions, is inherently and fundamentally “hortatory” or “attitudinal.” Just as Walker (1996) argues for the historical and functional primacy of epideictic over pragmatic rhetoric, Burke (echoing Malinowski’s discussion of the phatic) argues that

the power of language to define and describe may be viewed as derivative; and its essential function may be treated as attitudinal or hortatory; attitudinal as with expressions of complaint, fear, gratitude, and such; hortatory as with commands or requests, or, in general, an instrument developed through its use in the social processes of cooperation and competition. (Burke, 1968, p. 44)

As Perelman and Olbrechts-Tyteca (1969) claim that all argument is a cooperative undertaking (Graff & Winn, 2006, p. 50), Burke claims that all discourse is an ‘appeal’ for ‘cooperation’ (a position indebted to Mead’s claim that language is “just a part of a co-operative process,” Mead, 1934, p. 74), which speaks directly to the epideictic dimension because the epideictic “appeals to the individual auditor’s sense of responsibility to the community. It is an

especially hortatory use of language because it is always ultimately about how we conduct our ‘public and private affairs’” (Sheard 1996, p. 785-786).

This is precisely why Burke (drawing from both Malinowski and Mead and prefiguring theories of the performative along lines that sometimes resemble those drawn by Wittgenstein) calls language “an aspect of ‘action’, that is [...] symbolic action’,” which he understands to be inherently rhetorical or “necessarily *suasive*” (Burke, 1969b, p. 44-45). While the ‘scientific’ (or definitional, strategic, instrumental, or pragmatic) account of discourse puts “primary stress upon a proposition such as ‘It *is*, or it *is not*,’” Burke’s “dramatistic” approach “puts the primary stress upon such hortatory expressions as ‘thou *shalt*, or thou *shalt not*’” (p. 44) – an account which emphasizes the ideological character of language, discourse, and communication (i.e., of ‘symbolic action’): “The individual person, striving to form himself in accordance with the communicative norms that match the cooperative ways of his society, is by the same token concerned with the rhetoric of identification” (Burke, 1969b, p. 39). Such identification is fundamentally rhetorical in the neo-sophistic sense being developed herein: it is epideictic in its affective and ideologically disciplining functions through which the social and the individual mutually co-construct one another as the *pathos* of presence continually generates and shapes a conditioning *logos* justifying a disciplining *ethos*.

For this reason, the overall goal of the epideictic rhetor, according to Sullivan (1993b), is to build what Burke called ‘consubstantiality’ with the audience. In Burke’s original formulation:

A is not identical with his colleague B. But insofar as their interests are joined, A is *identified* with B. Or he may *identify himself* with B even when their interests are not joined, if he assumes that they are, or is persuaded to believe so.

Here are ambiguities of substance. In being identified with B, A is “substantially one” with a person other than himself. [...] To identify A with B is to make A “consustantial” with B. [...] A doctrine of *consustantiality*, either explicit or implicit, may be necessary

to any way of life. For substance, in the old philosophy, was an *act*; and a way of *acting-together*; and in acting together, men have common attitudes and sensations, concepts, images, ideas, attitudes that make them *consubstantial*. (Burke, 1969b, p. 20-21)⁹⁴

Epideictic discourse and rhetoric, therefore, serve to enact ideology, to both establish and reinforce shared beliefs and values (e.g., “attitudes and sensations, concepts, images, ideas, attitudes that make them *consubstantial*”) in the present *pathos of theoria* within, through, and by which the interlocutors or communicants interact or communicate. This activity is a ‘necessarily *suasive*’ aspect of *all* human communication, but is most apparent in explicitly epideictic rhetoric:

Because the epideictic rhetor is attempting to bring people fully into the same tradition of which he or she is representative, and because the listeners are considered at least initiate members of that tradition, the rhetor treats them as though they are already within the pale and attempts to increase the intensity of their adherence to those values held in common. (Sullivan 1993b, p.126)

There is, therefore, a strong relation between the epideictic and the ideological role of *ethos*, as is evident in Burke’s ‘identification’ and ‘consubstantiality’. Sullivan argues,

Ethos is not primarily an attribute of the speaker, nor even an audience perception: It is, instead, the common dwelling place of both,⁹⁵ the timeless, consubstantial space that

⁹⁴ The idea of shared ‘substance’ here is also directly related to both ‘medium’ in Gibson’s sense of ‘environmental medium’ and for the same reason to ‘culture’ via the sense of the term as a biological ‘growth medium’. Burke’s style of terminological and theoretical polysemy and punning has much in common with McLuhan’s, though Burke (who saw through McLuhan’s language) found the former to be less than convincing (see ‘Medium as message’ in Burke 1968, pp. 410-418).

⁹⁵ This language of *ethos* as ‘dwelling place’ should elicit a spark of recognition from those in both rhetorical studies and the philosophy of technology who are familiar with Heidegger’s

enfolds participants in epideictic exchange. Things that are consubstantial share substance, and, if in some metaphysical sense, we can say that those who share a common mental or spiritual space also share a common substance, we begin to experience ethos as consubstantiality. (Sullivan 1993b, p. 127)

Here Sullivan is drawing from the etymological roots of the term *ethos*, which originally meant ‘dwelling place’—an animal’s (and later, a person’s) *ethe* was the environment it (naturally or characteristically) occupied (and in Gibson’s sense co-constituted), e.g. the pasture for the horse, the sty for the swine, the sea or stream for the fish. By gradual metaphorical development, *ethe* became *ethos*, meaning ‘habit’ or ‘custom’ (similar to ‘culture’), which were inseparable from ideas of ‘community’ and took on what we now understand as an ‘ethical’ aspect (Miller, 1973; Reynolds, 1993), as the source of a person’s ‘character’. The relation of *ethos* to place (as space of relations—and as *territory*) therefore runs deep. When understood in relation to *logos* and *pathos*, the terms become temporally tinged dimensions of the same ideological space of affective consubstantiality, symbolically and discursively enacted.

3.2.4 Functions of the ‘Epideictic Dimension’

John Quincy Adams, the first Boylston Professor of Rhetoric and Oratory at Harvard University, instructed his students in the early nineteenth century that the “ultimate object” of epideictic was “the display of qualities good or bad. Her special function is to point the finger of admiration or of scorn; to deal out the mead of honor and of shame.” (Engels 2009, p. 320; *op cite* Adams, 1810, p. 238)

notion of ‘dwelling’ (see e.g., Rickert, 2013 and Bay & Rickert, 2008, 2010). It is a tangent to this space—though a productive one—that I will not explore here.

Epideictic discourse, from the beginning, has been characterized most explicitly as the rhetoric of praise and blame, which speaks directly to its ideological and disciplinary character. It is through praise and blame that communities establish and enforce their ‘thou shalts’ and ‘thou shalt nots’, that they establish the dimensions and make clear the acceptable parameters of “what exists and what doesn’t, what is good and what’s not, and what’s possible and what’s not” (Therborn, 1980). Epideictic discourse, most recognizably through acts of praise and blame, shapes the shared imagination, the collective consciousness, of the social group by which the individual identity is relationally established and continually measured. This is why O’Gorman (2005) insists that the epideictic function—even in Aristotle—is a “phantasmatic” function. This is what makes epideictic discourse ideological discourse. But the instrumental functions of praise and blame fall far short of a complete characterization of what Olson (2013) calls the “epideictic dimension.”

Several contemporary scholars and theorists have attempted to define, characterize, and categorize the specific ideological functions of epideictic discourse beyond the traditional emphasis on discourses of praise and blame. Condit (1985) enumerates three functions of epideictic speech, each of which constitutes a speaker/audience dialectic: 1) definition/understanding, 2) display/entertainment, and 3) shaping/sharing of community. Sullivan (1991) offers five: 1) education, 2) legitimation, 3) demonstration, 4) celebration, and 5) criticism, which he later consolidated into a “constellation of purposes: preservation, education, celebration, and aesthetic creation” (Sullivan 1993b, p. 116). Danisch (2006, p. 291), blending all of these previous schemata, offers three defining characteristics of epideictic discourse: “1) aesthetic practices of display that uncover what lies hidden, 2) a focus on outlining, on describing, and on making present the common values of audiences, and 3) mechanisms for

generating cohesion in a community.” All of these categorical typologies speak to the inherent ideological function of language, discourse, and communication, incorporating, but extending well beyond the instrumental purposes of praise and blame.

No scholars have done more to rehabilitate and reinvision the epideictic beyond the assumed instrumental and pragmatic character of rhetoric as a whole, and praise and blame specifically, than Chaïm Perelman and Lucia Olbrechts-Tyteca, who first called attention to the ideological character and function of the epideictic. While much of Kenneth Burke’s work, as shown above, can be easily related to the ideological function of epideictic, Burke himself seems to have been too strongly shaped by the (Neo-) Aristotelian tradition to have made the connection of identification and consubstantiality to the ideological function of the epideictic. In *The New Rhetoric* (1969), Perelman and Olbrechts-Tyteca claim that the epideictic is not merely ‘occasional oratory’ concerned with ceremonial or declamatory praise and blame serving primarily to enhance the reputation of the skilled speaker in the eyes of a passive audience—a characterization as old as the genre itself. The true purpose of epideictic speech, they claim, “is to increase the intensity of adherence to values held in common by the audience and speaker” (p. 52) in order “to foster a communion of minds” (p. 55)—a definition echoed in most of the work already cited herein (e.g., Sullivan, 1993b) and closely related to Burke’s understanding of language as ‘cooperative’. Near the beginning of *The New Rhetoric*, in a short section devoted to ‘The epideictic genre’, just five pages long, supplemented by another three pages that connect the epideictic to ‘Education and propaganda’, Perelman and Olbrechts-Tyteca reclaim the ideological function of the epideictic from the privileging of pragmatic discourse, which they argue had been largely responsible for the historical decline of rhetoric as a discipline.

Graff and Winn (2006), discussing the sustained influence of Perelman and Olbrechts-Tyteca's reinterpretation of epideictic, emphasize that it

is crucial to the authors' whole project [on argumentation]; they contend that epideictic ceremonies provide opportunities for the inculcation and periodic reaffirmation of communal values and that, in so doing, epideictic discourse secures resources for invention (premises on the order of the "preferable") and establishes a ground for future argumentation. (p. 48)

Furthermore,

Perelman and Olbrechts-Tyteca reject the view that members of the epideictic audience are mere spectators to the performance. [...] The increased intensity of adherence sought in epideictic, and the communion such discourses promote, are hardly passive outcomes. Although such speeches do not typically seek immediate action, effective epideictic speech reaffirms values that will play a part in subsequent discourses that urge action. Moreover, it stirs or strengthens in audience members a *disposition* to act, a disposition that will be made salient when confronted with effective arguments. In this reconceptualization, the communion around the values fostered in epideictic thus comes to serve as both means and end of argumentation. While strengthening the audience's adherence to shared values is the "end" in epideictic, these shared values in turn serve as starting points, or "means," for deliberative and forensic discourse" (Graff & Winn 2006, p. 49-50).⁹⁶

Along these lines, which form the shared basis of the neo-sophistic account of the epideictic, Olson characterizes the "epideictic dimension" of communication beyond the realm of oratory and argumentation by emphasizing the way a text/discourse or group of texts/discourses "coherently, elaborately, and powerfully promotes and justifies values, beliefs, and practices that

⁹⁶ In the terms of the first half of this chapter, shared values, as 'mediational means', both enact and comprise shared spaces of relations.

maintain status quo power relationships, even when those are not its ostensible lessons” (Olson, 2013, p. 461). She points to the conservative or indoctrinational character of the epideictic which is “constituted by textual layers that teach and maintain a community’s ‘common’ beliefs and values to guide members’ behavior beyond the immediate situation so that status quo practices and power distributions are justified and continue to operate smoothly” (Olson, 2013, p. 474).

While Perelman and Olbrechts-Tyteca reshaped the understanding of the epideictic, influencing everything that has come after, they have been criticized for overemphasizing the conservative character of epideictic discourse, which Olson also emphasizes. Because, on their definition, the epideictic function serves to “increase the intensity of adherence to certain values [...] recognized by the audience” (p. 51), Perelman and Olbrechts-Tyteca argue that epideictic discourse is most often made use of by those who “defend the traditional and accepted values, those which are the object of education, not the new and revolutionary values which stir up controversy and polemics” (ibid). Condit (1985) argues to the contrary that the establishment and the strengthening of adherence to shared beliefs and values includes the *establishment* of such values and, as such, the epideictic also has vast potential for dissent, re-valuation, and even revolution. Similarly, Jost (2004, p. 318) argues that “epideictic is not in any way simply ‘accountable’ in the sense of answering to a standing morality or aesthetic propriety or philosophy.” In practice, “it leans on old and/or provides new criteria or acknowledgments, establishing as it were the very means of accounting for meanings and actions” (ibid). The epideictic dimension, therefore, does not simply maintain normative ideological structures but comprises the process of ‘social construction’, including the continual dynamic re-creation of shared values and beliefs, and the active relational co-construction of ‘speaker’ and ‘audience’.

3.2.4.1 Social Construction: Epideictic and Action

“More than just promoting adherence to values,” writes Carter (1992), epideictic discourse

defines those values and thus defines the community [...] The root of *to display* means to unfold, to spread out, to reveal. Epideictic, when it is shifted from its individual to its communal connotations, is a discourse that a community uses to reveal itself to itself. [...] [E]pideictic rhetoric is a constant unfolding of the identity of a community because identity is constantly changing. (Carter 1992, p. 306-307)

The power of discourse to shape identity through consubstantiality via the propagation of ideology has been an important theme in rhetorical studies and rhetorical criticism for a very long time. In his now classic article, “The Second Persona,” Edwin Black addressed the ideological and discursive construction of audience and community in his discussion of the relationship between the implied auditor of a discourse and an ideology “in the sense that Marx used that term: the network of interconnected convictions that functions in a man epistemically and shapes his identity by determining how he views the world” (Black, 1970, p. 112):

The expectation that a verbal token of ideology can be taken as implying an auditor who shares that ideology is something more than a hypothesis about a relationship. It rather should be viewed as expressing a vector of influence. [...] Actual auditors look to the discourse they are attending for cues that tell them how they are to view the world, even beyond the expressed concerns, the overt propositional sense, of the discourse. (Black, 1970, p. 112)

In “the clamor of competing fictions” (p. 112) that make up the modern discursive ecology, Black writes, “we can find enticements not simply to believe something, but to *be*

something.⁹⁷ We are solicited by the discourse to fulfill its blandishments with our very selves” (p. 119). This function, which we can recognize as epideictic, is an ethical and moral function of both social ‘reality’ construction and the co-constitution and consubstantiality of community and ‘speaker’. Moral judgments, Black argues, “compel, as forcefully as the mind can be compelled, a manner of apprehending an object. Moral judgments coerce one’s perceptions of things” (p. 109). And one’s ‘perception of things’ is the generative grounds of both consubstantial social identity and the ‘other’ against which that identity is comparatively maintained.

Perelman & Olbrechts-Tyteca begin their *New Rhetoric: A Treatise on Argumentation* with a discussion of the importance of audience that also speaks to this co-construction of individual, community/society, and world. Specifically, they offer the idea of the ‘universal audience’, a figure pointing in the same direction as Black’s ‘second persona’. Both are attempts to account for the implied (or implicated) consubstantial audience of a discourse. Perelman & Olbrechts-Tyteca argue that argumentation itself (what we might extend to *communication* itself) requires “an effective community of minds” (1969, p.14), and offer three types of assumed or implied audience: 1) the “*subject himself*” in the practice of intrapersonal communication, 2) the single “*interlocutor*” addressed in dialogue (i.e., interpersonal communication), and 3) the “*universal audience*,” which refers

not to an experimentally proven fact, but to a universality and unanimity imagined by the speaker, to the agreement of an audience which should be universal, since, for legitimate reasons, we need not take into consideration those which are not part of it. (Perelman & Olbrechts-Tyteca, 1969, p. 31)

⁹⁷ This may be most evident in individualist(ic) ideologies: to speak of identifying with individualism paints an ironic but, nevertheless, accurate portrait—libertarianism is also a social formation.

The ‘universal audience’ is not, therefore, an actuality—and certainly not ‘universal’. The term indicates the normative assumptions of consubstantial communion—a dynamic spacetime which shapes a *logos* and justifies an *ethos* within a generative *pathos*—by which and within which discourse and communication become (socially) constructive as they are enacted and practiced. Perelman & Olbrechts-Tyteca distinguish the ‘universal audience’ from the ‘subject himself’ and the ‘individual interlocuter’ in terms of general and specific audiences, respectively. But much like the previously discussed dependence of *logos* and *ethos* (and the judgment of *krisis*) on *pathos* (and the judgment of *theoria*), the necessity of a ‘communion of minds’ to communication makes the generalized normative construct of the ‘universal audience’ the necessary grounds for communication with specific audiences. Even when we talk to ourselves we do so within a dynamic space of normative assumptions and expectations that is ‘universal’ precisely in the sense that it is ‘normative’—precisely, that is, in the sense that we assume what any ‘reasonable person’ would regard “as *real*, *true*, and *objectively valid*” (Perelman & Olbrechts-Tyteca, 1969, p. 33). As such, the normative, ‘universal audience’, like Black’s ‘second persona’, points to the unconscious assumptions that structure and make possible not just communication but the set of shared conceptual configurations or ‘interconnected convictions’—the ‘common ground’—that communication requires.

Each culture and subculture “has thus its own conception of the universal audience” (ibid), and such assumptions are discursively enacted in the epideictic. For this reason Sullivan (1991) calls epideictic the “rhetoric of orthodoxies”: “epideictic builds cultures by establishing and maintaining beliefs, values, and ways of seeing that serve as a form of life for everyday activities” (1991, p. 232). However, *doxa*, the normative assumptions that generate the ‘universal audience’, “is often tacit, and its power is exercised as much in acts of concealment as in

revelation” (ibid, *op cite* McKerrow, 1989, p. 104). More specifically, “because epideictic is the rhetoric of orthodoxies, it entails the notion of heresy, and orthodoxy and heresy together entail the notion of boundaries” (Sullivan, 1991, p. 232) — of ‘inside’ and ‘outside’ of the communion of minds and the consubstantial social body of identifications.

Sullivan’s ‘rhetoric of orthodoxies’, like the work of McKerrow he cites, draws from Kenneth Burke’s notion of the ‘terministic screens’, Burke’s term in the family of *doxa* and *theoria*: ways of seeing. The metaphor is one of a filter that constitutes a conceptual boundary. Burke’s own illustrative example is the way in which the application of differently colored photographic filters can significantly and dramatically affect the appearance of an image.⁹⁸ Analogously, different ways of seeing and talking and thinking about the world bring particular things to the fore and sublate or ‘screen out’ others. Different ways of seeing, different discursively shaped cultural and ideological perspectives, serve to shape our realities within the bounds of prefigured assumptions and acceptable expectations:

Not only does the nature of our terms affect the nature of our observations, in the sense that the terms direct the attention to one field rather than to another. Also, *many of the “observations” are but implications of the particular terminology in terms of which the observations are made.* In brief, much that we take as observations about “reality” may be but the spinning out of possibilities implicit in our particular choice of terms. (Burke, 1968, p. 46, original italics)⁹⁹

⁹⁸ In Shotter’s (1983, p. 36) similar take, “It is as if in some circumstances our window on the world is itself so highly patterned and framed, that we can see nothing through it which is not itself ‘coloured’ and ‘shaped’ by the window itself.”

⁹⁹ The similarity to Garfinkel’s later notion of ‘fallacy of imposed order’ is not incidental.

In Burke's own oft-cited words: "Even if any given terminology is a *reflection* of reality, by its very nature as a terminology it must be a *selection* of reality; and to this extent it must also function as a *deflection* of reality" (Burke, 1968, p. 45). This boundary-forming, ideological function of language as symbolic action is precisely the epideictic dimension (which can also, thereby, be understood as a form of mediational modality). It is the *suasive* character of language as symbolic action that consubstantially binds 'effective communities of minds' within the substance of "an act" and "a way of acting-together" (Burke, 1969b, p. 21).

In this sense, the observing *theoros* is not a passive spectator but an active witness—involved, implicated, imbricated in the symbolic action. For this reason Burke understands an 'attitude' as an "implicit action." The way we see things, how we feel about them—shaped in large part by our cultural and ideological assumptions and expectations—also prefigures our response to that thing or situation. Perelman & Olbrechts-Tyteca, therefore, argue that epideictic discourse generates a "disposition to action." Lauer explains that "[a]t times, epideictic values are so strongly linked to functional deeds that advocating values becomes tantamount to advocating action" (Lauer 2015, p. 14). According to Danisch, who uses as a specific example the work of early 20th century American philosopher, social critic, and key figure in the Harlem Renaissance, Alain Locke:

Just as political rhetoric urges a course of action, so too does epideictic if it expects the audience to perpetuate the value being praised. Locke does not look to rhetoric and oratory for this function. Instead he looks for the mechanisms that transmit value systems from one person to another without relying on dogmatic claims and while staying open to the possibility of revising value-feelings. Locke's theory of values, by attending to feelings and actions, points to a similar way of understanding acts of praise. (Danisch 2008, p. 308)

Where Olson's (2013) discussion of the epideictic dimension of communication emphasizes the conservative and disciplinary ideological functions of cultural texts, Danisch (2008) demonstrates the power of cultural products to reinvision and re-create, to generate new ideological positions through epideictic processes of influence. This account represents a significant revaluation and expansion of the traditional 'genre' of epideictic rhetoric. However, according to Walker, this "new view" of the epideictic is less a reinvention than a recovery of early sophistic approaches to rhetoric as a whole (hence, 'neo-sophistic'). What Aristotle labeled 'epideictic' (in opposition or contrast to the 'pragmatic', strategic, or explicitly instrumental) is in fact

that which shapes and cultivates the basic codes of value and belief by which a society or culture lives; it shapes the ideologies and imageries with which, and by which, the individual members of a community identify themselves; and, perhaps most significantly, it shapes the fundamental grounds, the "deep" philosophical commitments and presuppositions, that will underlie and ultimately determine decision and debate in particular pragmatic forums. As such, epideictic suasion is not limited to the reinforcement of existing beliefs, or to merely ornamental displays of clever speech (though clearly it can serve such purposes as well). Epideictic can also work to challenge or transform conventional beliefs, which plainly are the purposes of Plato's dialogues, Isocrates' panegyrics, what remains of Gorgias' epideictics (particularly *Helen* and the surviving paraphrase of *On the Nonexistent*), and the sophistic or Protagorean practice of antilogy that is parodied in the "speech of Lysias" in Plato's *Phaedrus*. [...] When conceived in positive terms and not simply in terms of lack, epideictic discourse reveals itself [...] as the central and indeed fundamental mode of rhetoric in human culture. Conceived in positive terms, then, the distinction between the *epideiktikon* and the *pragmatikon* comes down to this: the *epideiktikon* is the rhetoric of belief and desire, the *pragmatikon* the rhetoric of practical civic business, a rhetoric that necessarily depends on and appeals to the beliefs/desires that epideictic cultivates. (Walker 1996, p. 255-256)

“Epidictic rhetoric,” argues Danisch (2006, p. 292), is “constitutive of self, identity, and community.” It is this constitutive, ideological function, Bostdorff (2011, p. 297) explains, that “continues to make epidictic discourse an appealing rhetorical choice for political leaders [:] it persuades on deliberative questions without seeming to do so.” It is also this constitutive and ideological function, I will argue, that gives the ‘epidictic dimension’ an importance that exceeds its role in oratory and in rhetoric as it has been conventionally conceived.

3.2.4.2 Epidictic Enactment

Aristotle’s genre of epidictic rhetoric has been conventionally understood to mobilize *pathos* through affective appeals to the emotions of the passive, co-present audience, largely through a reliance on aesthetics and stylistics (*epideixis* can be translated as ‘show forth’ or ‘display’). More recently, scholars and theorists have understood the epidictic to be primarily concerned with reinforcing an audience’s adherence to the shared beliefs and values of a community through the ‘presencing’ of collective consciousness (Perelman & Olbrechts-Tyteca, 1969). Epidictic discourse, therefore, has an epistemic aspect in its ability to disclose (‘show forth’, ‘display’) the truth (Hyde, 2005) of commonly held beliefs and to “shape and cultivate the basic codes of value and belief by which a culture lives” (Walker, 2004). Epidictic rhetoric is, thus, the rhetoric of (socially shaped or socially constructed) belief and desire, which serves not merely to mobilize but to both *produce* and *justify* emotion and affect. This makes the epidictic’s reliance on *pathos* a vital element of its ideological function. The epidictic establishes, shapes, and reinforces *theoria*, a communal way of seeing, which channels social identification and consubstantiality into a way of behaving and acting. Epidictic rhetoric is a rhetoric of being and becoming (Foley, 2015), shaping the possibilities of the future, based on

upon a rhetorically re-membered or re-collected past, which are generated and justified by the present, affectively enacted and propagated way of seeing and acting-together—a way of seeing is a way of being.

The contemporary account of epideictic rhetoric, grounded in the present *pathos*, evoking the values and beliefs of a consubstantial audience, can thereby be understood

as argument directed toward the establishment, reconfirmation, or revision of general values and beliefs [... T]he *kairos* of epideictic is a moment or juncture within the pattern, an occasion within a complex of occasions, about which something can or must be said. (Or, in a more “epic” mood perhaps, epideictic argument may seek to articulate or redefine the entirety of the pattern itself.) (Walker 1989, p. 7-8)

As such, epideictic rhetoric is understood to be argumentative, though not in the more explicitly agonistic manner that characterizes pragmatic or instrumental rhetoric. The epideictic presents an inherent, sometimes implicit, argument for a set of structuring values and for action based upon those values. Therefore, “deliberative [*viz.*, *ethos*] and epideictic [*viz.*, *pathos*] appeals cannot be neatly separated” (Murphy, 1992, p. 68). Epideictic argument is an appeal to and for that which is appealing by virtue of its grounding in shared beliefs, shared values, and shared desires. As such, epideictic “is a communal not exclusively personal undertaking, and that community may be called into question as well as into being – not merely ratified with a stamp of approval but evoked, brought out of eclipse” (Jost 2004, p.320).

Vail (2006, p. 59) emphasizes the constitutive function of these epideictic processes which allow “rhetor and audience [to] become fully integrated and speak with one voice.” This is the community-building, the identificational and consubstantiating function of the epideictic. The fact that this consubstantiation “must be re-forged in and throughout each discourse,” argue Graff & Winn, “has a still deeper implication in that it highlights the fragility of the ‘contact of

minds' required for any viable argumentation" (Graff & Winn, 2006, p. 64). This point begins to lead us toward the epideictic foundations of rhetoric in general and human communication more broadly, and the social foundations of human cognition on which they rely and which they express.

3.2.4.3 Constitutive Rhetorics: Us & Them

In the telling of the story of a *peuple*, a *peuple* comes to be. (Charland, 1987, p. 140)

The constitutive and community-building functions of epideictic rhetoric have been discussed extensively in regards to, for example, African American (White 1998; Leff & Utley 2004; Danisch 2008; Vivian 2012), Native American (Roberts 2004; Palczewski 2005; Richards 2009; Morris 2010), and feminist epideictics (Petre 2007; Richards 2009; Bordelon 2010), as well as in disciplinary rhetorics such as in the rhetoric of science (Casper 2007; Cutrufello 2015). In conventional political epideictic rhetoric, Campbell and Jamieson point to the ways in which successful American presidential inaugural speeches

constitute the citizenry as a people in some new way: as those entrusted with the success or failure of the democratic experiment (Washington's first), as members of a perpetual Union (Lincoln's first), as a people whose spiritual strength can overcome material difficulties (Franklin Roosevelt's first), as a people willing to sacrifice for an ideal (Kennedy's), as members of an international community (Wilson's second), as a people able to transcend political differences (Washington's first, Jefferson's first). (Campbell & Jamieson, 1990, p. 17)

Building on the work of Burke, Perelman, and others, importantly including McGee (1975), Charland (1987) developed the explicit notion of 'constitutive rhetoric' by which discourse as consubstantiating symbolic action functions to generate a collective, social body—a

discursive subjectivity in relation to and within which individual sociopolitical identity is shaped.

The basic assumption is that human beings “live inside rhetoric”:

Indeed, from the moment they enter into the world of language, they are subjects; the very moment of recognition of an address constitutes an entry into a subject position to which inheres a set of motives that render a rhetorical discourse intelligible. (Charland, 1987, p. 147)

“The very existence of social subjects (who would become audience members) is already a rhetorical effect” (ibid, p. 133), Charland argues; “the very act of *addressing* is rhetorical” (ibid, p. 138). Complementing Hyde’s (2005) previously recalled insistence on the epistemic function of affective human acknowledgment,¹⁰⁰ Charland’s constitutive rhetoric reminds us that such acknowledgment, actualized in direct address, generates a subjectivity, a discursive relation by which self and other, the individual and the social, are dynamically shaped, co-constituted. In rhetorical terms, this process of recognition and acknowledgment is, according to Engels, “prior to persuasion”; the epideictic function is the process of generating identity as well as the mutually constitutive “process of constructing audiences so that they can be persuaded”: epideictic is the “rhetoric of socialization” (Engels 2009, p. 311). The epideictic dimension underlies all human being: “Persons are subjects from the moment they acquire language and the capacity to speak and be spoken to. As such, constitutive rhetoric is part of the discursive background of social life” (Charland, 1987, p. 147). Social life involves the continuous,

¹⁰⁰ Or Wittgenstein’s: “Knowledge in the end is based on acknowledgment” (*Philosophical Investigations*, no. 378). “That is,” explains Shotter (2013, p. 150), “it is based on our capacity to *relate ourselves* to a ‘something’ in our surroundings in a certain manner, as the others around us do, and to distinguish it and to describe it, linguistically, *as* an X rather than a Y”—though I would just as soon excise the “linguistically.”

dynamic, re-generation of ways of seeing actualized as relational ways of being within constantly evolving shared ideological spaces of affective consubstantiality, symbolically and discursively enacted. ‘Constitutive rhetoric’ names, once again, the ideological epideictic function of human interaction:

constitutive rhetorics, as they identify, have power because they are oriented towards action. As Althusser and McGee both stress, ideology is material, existing not in the realm of ideas, but in that of *material practices*. Ideology is material because subjects enact their ideology and reconstitute their material world in its image. Constitutive rhetorics are ideological not merely because they provide individuals with narratives to inhabit as subjects and motives to experience, but because they insert “narratized” subjects-as-agents into the world. (Charland, 1987, p. 143).

It is in this way that

Epideictic rhetoric can function to edify character by calling or challenging its audience to become their better, nobler, braver, and more virtuous selves. Aiming toward the inner life of its audience, it enacts rhetoric for the private person within a public context. (White 1998, p. 130)

This function of the epideictic is the fundament and firmament of social life. As Hauser argues,

Political actors cannot unite out of common interest without first recognizing shared bonds of community that transcend individual differences. [...] Epideictic exhibits public morality; we learn it through mimesis of deeds unfathomable were they not publicly exhibited and validated. [...] It can educate us in the vocabulary of civic virtues that may constitute citizens as an active public, and communicate principles on which responsible citizenship may be based and a vibrant public sphere can thrive. (Hauser 1999, p. 19-20)

While the epideictic dimension is “prior to persuasion,” its process is rhetorical in the classical sense because there can be no single, unified, disconnected ideological position for the

simple, obvious reason that each individual occupies a unique nexus of material and social subject-positions which is inherently, continually, and inescapably defined in dynamic relation to others. There can be no ‘I’ without a ‘thou’, no ‘us’ without a ‘them’. Drawing on Plato’s recognition of the two basic functions of rhetoric and dialectic (combination and division), Kenneth Burke remarked that “to begin with ‘identification’ is, by the same token ... to confront the implication of *division*” (1969b, p. 22; see also Borrowman & Kmetz, 2011)—a process Vitanza (1997, p. 123) calls “congregation by segregation.” In a similar way but in his own language, Perelman recognized that communion was “compensatory” to intractable separation (Graff & Winn, 2006, p. 65). Even in the rhetoric of science—the space of ideal, analytical, empirical objectivity—Sullivan (1994b) has described the epideictic function of rhetorical exclusion as a division that identifies ‘what is good’ as distinct from ‘what’s not’—the good us from the bad them. As such, the positive, combinatory, consubstantiating, and synthetic function of the epideictic is incomplete without attention to the ‘compensatory’ divisive function that allows for the analytic ‘carving of reality at its proper joints’ and the establishment of conceptual and ideological boundaries in the mutually constitutive dynamics of orthodoxies and heresies (Sullivan, 1991).

The divisive function of epideictic is indicated in Perelman & Olbrechts-Tyteca’s (1969) and Olsen’s (2013) emphasis on the conservative character of the epideictic, and such phenomena are perhaps most apparent in the study of politically polarizing rhetoric (e.g., King & Anderson 1983; Carlson 1989; Asen 2009), which

always encompasses two principal strategies: a strategy of affirmation and a strategy of subversion.¹⁰¹ A strategy of affirmation is concerned with a judicious selection of those

¹⁰¹ See Fisher (1973) for a classic elaboration of this dialectic of political rhetoric.

images that will promote a strong sense of group identity. A strategy of subversion is concerned with a careful selection of those images that will undermine the ethos of competing groups, ideologies, or institutions. (King & Anderson, 1983, p. 178)

Not all epideictic discourse has such broad social unification as its aim. Burke's (1964) "The rhetoric of Hitler's 'battle'" provides a canonical example of identification through division: the constitution of the orthodoxy of 'us' against the scapegoated heresy of 'them'. Condit (1985) has called this the "dark side" of the epideictic. However, much conservative rhetoric, almost by definition, functions in a similar manner (see for example, Carlson 1989; Smith & Trimbur 2003; Vivian 2006, 2009, 2012; Asen 2009; Thompson, 2011; Atchison 2012; Boser & Lake 2014). While emphasizing the 'constitutive' character of the epideictic dimension, we cannot ignore or dismiss its conservative 'dark side' emphasized by Perelman & Olbrechts-Tyteca (1969), Olson (2013), and others. As the epideictic enacts the affirmative centripetal forces of inclusive, normative constitution and discipline, it also and simultaneously enacts the subversive centrifugal forces that separate orthodoxy from heresy in identification-building through exclusion, blame, condemnation, and invective (Condit 1985; Sullivan 1991; Engels 2009).

This 'dark side' of epideictic, Engels reminds us,

deserves sustained attention as central to democratic culture, for as much as democracy is about consensus and harmony, it is also about division and hierarchy. Invective has been central to democratic culture from the beginning. (Engels, 2009, p. 329)

From this perspective, epideictic discourse "lies on the verge of propaganda" (Ritivoi, 2006, p. 97), a connection also made by Perelman & Olbrechts-Tyteca (1969). The epideictic "can invoke positive images from or about the past to enable manipulation, creating conveniently glorious and mythical accounts that can become justifications for condemnable actions

committed in the past” as well as in the present or in the future (Ritivoi, 2006, p. 97). The active constitution of the mythical ‘us’ is most easily affirmed by the subversive division of ‘us’ from the equally mythical ‘them’—a characterization, a negative identification, that can serve to justify symbolic (and too often physical) violence that functions to ‘purify’ the ‘us’ of the heresy of ‘them’. Burke calls this identification-by-division, this purification by scapegoating, ‘curative’ rhetoric. However, divisions of ‘us’ and ‘them’ are not only an inevitable, but a crucial aspect of a pluralistic and democratic society, regardless of the tendency toward ‘purification’—a tendency Burke took to be the primary indication of the human characteristic of being “rotten with perfection” (Burke, 1989).

Engels (2009) provides an illuminating historical example of the ‘dark side’ of epideictic in political discourse in his discussion of the response to Robert Owen’s Declaration of Mental Independence, a speech given for the 50th anniversary celebration of the American Declaration of Independence and “one of the most ill-received speeches in the early Republic” (Engels, 2009, p. 311). Owen, a British immigrant and successful free-thinking industrialist, addressed the Fourth of July celebrants of 1826 from the steps of New Harmony, Connecticut’s town hall. In his Declaration, Owen urged the completion of the American political revolution through a ‘mental revolution’ that involved abolishing private property, religion, and marriage, a “formidable Trinity, compounded of Ignorance, Superstition and Hypocrisy” (ibid, p. 314) to which, Owen argued, Americans were still held captive. The response wasn’t quite what Owen is likely to have hoped for: “Instead of dismantling the logic behind Owen’s address or rebutting his arguments about the causes of mental slavery, Americans called him names and attacked his character” (ibid, p. 312) in a variety of public and private forums, effectively destroying his public persona and his social and political status.

Owen's definition of 'freedom' was drawn in sharp contrast—effectively in opposition—to what most in the early republic held to be foundational American values: to confront or even acknowledge such a concept and its structuring set of ideas would be to call into question what many understood to be the defining value structures of American ethical, moral, and social identity. By reacting with condemnation and invective, not only are such threats to identity rejected but the 'we' is clearly identified and bolstered against such heresy. "Invective thus acted as a way of avoiding a public debate that many Americans did not want to have" (ibid, p.324). Furthermore, to blame Owen, Engels explains,

was to instruct Americans in who they were and who they were not. The building up of a national identity occurred through the tearing down of invective. To point the finger of blame was, in part, about confirming already shared beliefs and values. [...] Invective was consequently a type of constitutive rhetoric" (Engels 2009, p. 311).

In this way, negative epideictic generally, and invective more specifically, "is both constitutive of national identity and a curative rhetoric for managing cultural anxiety" (ibid, p. 311). It is not a 'bug' but a basic feature of democratic discourse:

Invective is a leveling discourse that has the benefit of constituting roughly equal subject positions between the speaker or writer and the subject of attack. As such, it can take the shine off heroes, bringing them down to the level of the people. Invective was central to the formative years of the American democracy because it was potentially open to anyone and everyone—it represented the cornerstone of a democratic politics that could include as it excluded. In a democracy committed to free speech, invective was constantly testing the boundaries and proving the durability of the structure. However, we should not miss the chance to understand how invective acted as an instrument of authority. In democratic culture, persuasion is power. To blame Owen might have established a relative equality between the speaker and target, but it also elevated the speaker above the demos as a moral authority who should be in charge of constituting democratic identities. (Engels 2009, p. 311-312)

Which is precisely why it still so common in political discourse today—when technology provides so many more options for interaction and such potentially larger audiences for communication. The contemporary conservative rhetoric of ‘Real America’, for example, follows exactly the same pattern as the response to Owen, for exactly the same reasons. But this reliance on negative epideictic comes at a price. While curative rhetoric may be inherent in democratic discourse, an over-reliance on the ‘dark side’ quickly becomes anti-democratic and authoritarian. Furthermore, as attitude implies action, as a way of seeing justifies a way of being, curative rhetoric, scapegoating, and the enforcement of orthodoxies can lead all too easily to both symbolic and physical violence and social and political repression, which can undermine the very values being championed. In the contemporary US political ecology,

While Republicans were (and continue to be) interested in constituting a Real America by assailing and ultimately defeating Obama, such attacks made (and continue to make) Real America out to be weak and corruptible, a pawn of the evil designs of Blue States. Moreover, such invective has perpetuated democratic anxiety by bringing out the worst in crowd behavior, turning people into a chanting, raving, angry mass, rather than a civil and deliberative public. Lawrence W. Rosenfield has compared the desired outcome of epideictic rhetoric to a religious experience that creates new subjectivities in the space shared by speaker and audience. It could very well be that the rhetorics of blame are constitutive of the community itself—that an imagined community is made real, if only for a moment, by the collective act of denunciation. One goal of invective is a momentary feeling of unity found in the joy of collective denunciation—seen in the Palin crowds that shouted murderous phrases. Invective, therefore, has the potential to undermine the democratic emphasis on controlled conflict by making that conflict personal and vicious.

Invective works to inflame angry emotions and shut down substantive debate about policy issues, it is inclined towards an anti-democratic sensibility. At the same time, however, America's history suggests that invective is deeply democratic, for invective is a useful rhetorical technique for managing anxieties, constituting identities, and hurting one's enemies—even if it tends to perpetuate anxieties about boundaries, identities, and

enemies rather than curing them or addressing their more systematic causes. (Engels 2009, p. 328-329)

Others have noted the anti-democratic and non-pluralistic character of much epideictic discourse in the extremely polarized contemporary US political culture. Lauer (2015, p. 14), citing Vivian (2006), points out how “Neoliberal epideictic inhibits deliberation regarding the efficacy of our public vocabulary and discourages a progressive production and addition to this vocabulary.” Discussing the reactionary response to the September 11, 2001 attacks, Cloud (2004, p. 75) similarly demonstrates how the militating of ideological orthodoxy against heresy can, in extreme circumstances, “be profoundly undemocratic because it rules inappropriate and unwelcome anyone offering questions, criticism, or a plea for rational thought” (Cloud, 2004, p. 75). What stands out, perhaps, in the contemporary political environment—in contrast to that of the early 19th century US—is the obviously tactical character of negative epideictic. “Most of the incivility of which we have all found ourselves complaining lately,” argues Benson, “does appear to be strategic.”

It is evidently carefully planned, often ghostwritten, focus-group-tested. Sometimes the incivility is inseparable from a more general tone of passionate complaint or partisan enthusiasm. Our politics has become organized around indignation, to the point that it is sometimes hard to imagine politics without the indignation that frames it. But such indignation, too, is tactical. (Benson 2011, p. 28)

Boser & Lake (2014) discuss this tactical use of negative epideictic as illustrated in the rhetoric of Sarah Palin. In the 2011 Congressional campaign, Palin and other right-wing Tea Party proponents waged a campaign of invective, vitriol, denunciation, and symbolic violence that included putting opposing candidates in visual-metaphorical “crosshairs” wrapped in a language of firearms and assault evoking right-wing anti-gun control positions. Shortly after the

election, Representative Gabrielle Giffords of Arizona, who had narrowly defeated her Tea Party challenger, was shot in the head with an automatic weapon at point blank range in an attack at a public appearance that killed six others and wounded nineteen more. Even before the attack, media and Democratic political figures had denounced the violence explicit in the Tea Party's rhetoric, calling out Palin specifically. Four days after the attack (which Giffords narrowly and miraculously survived), Palin posted the 8-minute video "America's Enduring Strength" to her Facebook page. The expectation for such a statement is an apologia, a traditional rhetorical form self-blame and/or self-defense, a symbolic act ultimately serving to reinforce an ethos or a moral position—an epideictic justification through identification. Boser & Lake, however, demonstrate that

Palin's video suggests an opposite, *antagonistic* relationship. [...T]he video is epideictic that actively *suppresses* judgment [...and...] is so *purely* epideictic, and suppresses judgment so thoroughly, that, in the final analysis, it is not apologia at all. [...]
 "America's Enduring Strength" masquerades as apologia: it is better described as self-praise than as self-defense, even for the purpose of vindication. Furthermore, this epideictic self-praise suppresses the grounds for audience deliberation and judgment regarding gun violence and toxic rhetoric: the video only shores up the Tea Party narrative, elevating it to a plane on which it is unquestionably virtuous. (Boser & Lake 2014, p.626).

This is, of course, precisely the function of epideictic: to 'show forth' a set of moral and ethical values and virtues that bind a like-minded community together in identification with common principles. That this binding is an inclusion created by a broader exclusion is not surprising nor, in fact—and despite the lamentable extremity, callousness, and political self-serving of this instance—could it be any other way.

3.2.5 Rhetoric & Dialectic

A (nominally) democratic society, a (nominally) pluralistic society, is a rhetorical society—a society built on contesting perspectives and positions. In a culture deeply rooted in competition, such as the contemporary US, as well as Western culture more broadly, the anti-democratic and anti-pluralistic dark side of epideictic is, perhaps paradoxically, inevitable. The problem is not how to eliminate negative epideictic in hope of achieving a rational utopia (which, we should remember literally means ‘no-place’), but how to maintain a balance in which cooperation and competition, inclusion and exclusion, combination and division, synthesis and analysis, generalization and categorization, are understood to be mutually co-constitutive processes in the negotiation of meaning (which, again, is far more than discrete ‘information’).

One common way of approaching what is being discussed here as the problem of negative epideictic in a democratic society is through the perspective of ethics and the relation between positive and negative freedom—the inherent struggle between ‘freedom to’ and ‘freedom from’: your freedom to be and act as you see fit can all too easily abrogate my right to be free from those acts and their consequences, and vice versa. It seems to me, however, that approaching such problems through the lenses of ‘freedom’ or ‘the ethical’ falls into precisely the trap Plato identified in the *Gorgias* when he gave us the earliest known use and definition of the term *rhêtôriké*. Where dialectic functions by analysis to reach hard definitions of the actual things and processes of material existence, rhetoric, Socrates argues therein, serves to define ‘doubtful things’—things like ‘freedom’ and ‘the ethical’—through the synthesis of competing arguments. But the very existence of these nominal categories as ‘doubtful’ things indicates the impossibility of coming to an ultimate, final conclusion concerning what they ‘are’ or ‘are not’—we are back to the Kantian rejection of ontology for epistemology, i.e. the realm of ideology.

The goal of this project is not to attempt an impossible escape from the rhetorical and ideological nominalization of doubtful things, but to better understand those nominalizations by looking below language (as discrete ‘signs’) to the movements of ideas and the generation of ideals that happens in dynamic spaces of interaction. Combination and division, cooperation and competition, inclusion and exclusion, generalization and categorization point to such movements—and *embody* such movements. Focusing on one important pair of these terms, we can see that competition and cooperation are mutually constituting: players who do not share the same goals, who are not playing by the same general rules, are not playing the same game—cheaters who are caught don’t win, and most of us would likely agree that cheaters who are not caught haven’t ‘really’ won. But when one side of this dialectic is privileged over the other, problems ripple outward. An excess of cooperation, inclusion, and synthesis leads to stasis. An excess of competition, exclusion, and analysis leads to fragmentation and disintegration. An inherent irony is that both of these excessive centrifugal and centripetal movements can happen simultaneously. Burke (1969b, p. 22), for example, called war “the ultimate disease of cooperation”; in contrast, the ultimate disease of competition could be understood as ‘purity’, or in Burke’s terms, ‘perfection’. Burke’s example was Hitler’s rhetoric which led to ‘the ultimate disease of cooperation’ (war) motivated by the ultimate disease of competition (purity). We have yet to find a cure for these diseases, which are still so evident in contemporary global politics and religious and cultural wars.

The movements of cooperation and competition, inclusion and exclusion, synthesis and analysis happen in interaction, in discourse, in rhetoric, in the epideictic dimension.

Epideictic rhetoric is especially necessary, I would argue, for it has the capacity to link thought with action, vision with reality, criticism with change. [...] Epideictic is the discursive gesture through which we make our thoughts, needs, desires, and actions

understood by others and ourselves. Hence, in epideictic, there is a reciprocal relationship between philosophy and rhetoric, thought and action, “theory” and “practice.” (Sheard 1996, p. 788)

3.3 Actors, Actions, and Intentional Information Spaces

A reorientation away from an exclusive focus on the analysis of discrete messages (as ‘signs’ as ‘units of information’) as the building blocks of ‘context’ (or as nodes linked in the network) and toward the spaces of interaction that constitute those ‘messages’ (rather than vice versa) provides a different view of communication as process, as well as a different understanding of the relationship of ‘text’ to ‘context’. An account of communication as deictic space-making explains quite clearly, for example, why all communication is rhetorical: if communication (as interaction) involves the establishment and maintenance of shared space (as relations), then communication involves the staking out of territories as each communicator attempts to define the relational ‘situation’ from her own motivated ‘perspective’ and in relation to her own intentions. This is an inherently suasive process, though not *necessarily* an agonistic one (see McComiskey, 2015). An account of communication as space-making also helps to explain phenomena that otherwise seem tangential or difficult to classify. In traditional rhetoric—emphasizing *logos*, and therefore ‘information’ as ‘messages’ strategically instrumentalized for purposes of social control—the epideictic appears mysterious when it is not simply dismissed precisely for being non-instrumental or non-strategic. From the perspective of communication as space-making, however, the epideictic is understood as the vital means of indicating, establishing, and enforcing those spaces of relations in which strategic argument can take place. The epideictic territorializes, establishes the ‘playing field’, and enforces the rules (or changes them).

In this way, epideictic is intimately related to the phatic. In traditional approaches to the investigation of communication as the ‘transmission’ and ‘exchange’ of ‘information’, phatic communication (much like ‘mere’ rhetoric) is tangential at best and ethically suspect at worst, precisely because it does not privilege the explicit exchange of discrete information. Recently, for example, Miller (2015) has clarified earlier (2008) remarks on the phatic character of social media with specific emphasis on digital politics and politically activist online communication. Opposing the phatic to the dialogic, Miller argues that the phatic does not constitute ‘real’ political speech because, unlike “true dialogue,” it does not involve the exchange of “substantive” information:

Many have pointed out quite rightfully that phatic communion is not ‘trivial’ and indeed is an important part of creating affective bonds which in turn create a sense of belonging, intimacy and community, so increased phaticism can be viewed positively as signs of togetherness in online environments [...] I do not disagree with this, but it is important to question what kind of togetherness this is and, in the case of online politics and activism, what potential relationship this has to social transformation. One could posit that instead of encouraging or evidencing a revitalized communion that was being lost, the rise of phatic culture is indicative of a post-social state in which our forms of communication are increasingly devoid of substantive content and true dialogue. (Miller, 2015, p. 11)

The privileging of “substantive content” and “true dialogue” here clearly betrays the basic assumption of communication as the transmission of information. These assumptions carry all of the baggage of the ‘savage’ and the ‘civilized’, the masculine rational (effective) mind and the feminine feeling (affective) body, that have plagued the idealistic ‘transmission’ model since its inception, shaped here by the pursuit of the Habermasian utopian dream of the ideal speech situation. But the world doesn’t work that way. Human communication has *never* worked that way. The epideictic and the phatic generate the interactional space in which ‘informative’

dialogue can take place. To bemoan the phatic is to bemoan communication itself. And to argue that the phatic character of digital media is a recent corruption of otherwise ideal, rational communication relies, again, on the mistaken assumption that mediated communication is somehow different in kind from human communication more broadly. But that's simply not the case. *All* communication is 'mediated'—mediation is space-making. Therefore, attempting to encourage more effective political communication by eliminating phatic and epideictic elements is, in effect, an attempt to eliminate human interaction from the (human) processes of political communication—to eliminate, in fact, exactly the *sub-stantive* element of communication that makes interaction *under-standable* and communication meaningful.¹⁰² In contrast, when communication is understood as space-making, the promotion of more effective political communication can be better understood to involve the establishment and maintenance of spaces of relation that balance the positive and negative aspects of the phatic and epideictic in the promotion of shared identities based in shared values motivating shared goals—which is what, at base, politics, as human practice, *is*.

The phatic and the epideictic emphasize the interactional and intersubjective character of communication. In comparison with the assumptions of the transmission model, they emphasize the role of the so-called 'receiver' of communication as active witness, as opposed to passive spectator. Communication as interaction insists upon the inseparability of 'senders', 'messages', and receivers', all of which are co-constituted by the spaces of relations they together instantiate. For this very reason, understanding communication in functional terms as the enactment of

¹⁰² This draws from Kenneth Burke's (1969) extended etymological pun equating substance with understanding: to 'under-stand' something is to have a conception of what 'sub-stands' it—meaning is relational, the datum is made meaningful (i.e. informative) by its 'external' relations not by its 'internal' 'content'.

shared spaces of relation (territories of meaning) also helps to explain deixis, which, despite being absolutely necessary to language and interaction, has been difficult for traditional approaches to integrate because the ‘information’ ‘transmitted’ by deictic phenomena exceeds the symbolic, undermining assumptions of the arbitrariness of language and ‘code’. However, from the perspective of communication as the enactment of spaces of relations, rather than the syntactic encoding the semantic through the pragmatic, semiotic processes might be better described as the pragmatic (iconic) generating the syntactic (symbolic) through the semantic (the indexical). Chapter 3 explains, integrates, and reinforces these ideas by bringing together contemporary information theory, interactional sociology, social psychology, and posthuman theories of distributed cognition to offer a theoretical account of communication based on the pre-symbolic concept of gesture (as opposed to the transmission of information as discrete signs).

4. IN SOLUTION

4.1 The Spatial Pragmatics of Information

Chapter 1 argued that new and digital media studies' novelty fetish, deriving from the traditional understanding of information as 'new' (i.e., changing foreground to stable background), has motivated a clinging assumption that mediated communication is fundamentally different from face-to-face interaction. An extensive review, however, showed that digitally mediated interaction, far from being somehow fundamentally distinct or different, follows the same general patterns as interaction more broadly, which is exemplified in the wide (and continually expanding) range of broadly pragmatic and 'metacommunicative' 'nonverbal' and 'para-' or 'extra-linguistic' phenomena common to even text-based digital media. This insistence on the assumption of mediated communication as fundamentally different results from a conventional of view of communication based methodologically upon a reductive understanding of language as the transmission of information as discrete, encoded signs. In media and communication studies, the usage of the term 'code', however, often conflates the information theory and cybernetic theory notion of (syntactic, symbolic, and metaphorical) 'code' with the semiotic and linguistic notion of (semantic, indexical, and synechdochical) 'code', often further, in practice, treating both—or the relation between them—in terms of 'code' as cipher (e.g., metonymical one-to-one iconic pairing of signifier and signified). In addition, 'code' is, for all practical purposes, typically equated with 'context' in the sense that the 'code' is what makes the 'information' (as 'signs') meaningful. However, instead of accounting for 'context' as situated structure of meaning, this reductive reliance on 'code' contributes to a *decontextualization* of media technologies and communication practices by limiting the 'meaningful' to only that which can be accounted for by the 'code' (or set of 'codes') being

attended to. This is an important shortcoming because the ‘context’, rather being what ‘comes with’ the ‘text’, is in fact what *constitutes* ‘the text’. In this sense, ‘code’ and ‘context’ are analogous—the background is what makes the foreground, i.e., the ‘information’, meaningful—but again, ‘code’ is an explicit analytical reduction not a ‘contextualizing’ space of situated meaning. ‘Meaning’ is not what is ‘contained’ in ‘information’ ‘transmitted’ and ‘received’ (or ‘encoded’ and ‘decoded’); ‘meaning’ is what is actively constituted in relations: the space of relations (what Chapter 2 identifies in terms of *theoria*, a ‘way of seeing’) makes ‘information’ ‘meaningful’. To put it in narrowly semiotic terms, while ‘decoding’ is also a form of ‘encoding’ there is little in this account to supply a connection between the two but the decontextualized, ‘transmitted’ ‘signs’. Finally, Chapter 1 argued that this underlying methodological imbalance between analysis and synthesis is ultimately an ethical issue. The decontextualization of information can lead to what Harold Garfinkel called the fallacy of imposed order and, if not obfuscation, at least an extremely reduced view of the phenomena being investigated. The phenomena investigated in the study of communication and media are human social actions; therefore, the dangers of such reductionism are social, political, and ethical dangers.

Chapter 2 sought to address this problem of ‘text’ and ‘context’ in terms of the communication or rhetorical situation by examining metaphors of space in communication and media studies. The most prominent of these, of course, is the network, which is a perfect example of the reductive character of information, code, and context seen in Chapter 1 (i.e., in a network, the nodes and links are often assumed to be both text and context—the network is its own ‘context’, which eliminates anything and everything that can’t be discretely accounted for as either ‘node’ or ‘link’). Networks, like all metaphors and models of communication, imply spaces of relations, and the conventional transmission model upon which the network is based

explicitly assumes space in terms of mediation ('information' 'transmitted' from 'place' to 'place') through, across, and in space. The conventional concept of medium/media however, was shown to conflate very different senses of these terms (i.e., environmental medium, medium as 'culture', and intermediating agency), which is directly related to the ontological and epistemological assumptions they carry concerning 'space' (and 'place') as well as to the reductive character of 'information' assumed. In addition, I argued that this unstable concept of media entails a confused understanding of the relation between media technology and materiality as well as the relationship between media technology and (communicative/ interactional/ rhetorical) agency. In contrast, an understanding of communication was introduced that posits interaction as the process of enacting shared meaning as space-making in terms of a functional account of mediation as the deictic establishment, maintenance, and contestation of spaces of relations. Chapter 2 explained how this functional account of information is better able to accommodate (related) phenomena such as deixis, phatic communication, and epideictic rhetoric, which, while being vital aspects of human communication, are difficult to productively integrate into the model of communication as transmission (or into the traditional account of rhetoric, which is more closely related to the former than is typically acknowledged).

This chapter further integrates these ideas to better explain communication (as interaction) as space-making by drawing from recent work in information theory by Luciano Floridi (2011) in combination with Harold Garfinkel's (2008) sociological theory of information to account for the functions of mediational means (Scollon, 2001) as forms of space-making. Examining the uses and functions of communication necessitates a discussion of both actors and action, which is accomplished first by drawing from assemblage theory, second from recent work in affect, emotion, and embodied cognition, and third from recent work in relational and

social psychology, specifically that of Kenneth Gergen (2009) and John Shotter (e.g., 1993, 2006, 2013). Finally, the notion of communication as active space-making is developed into a gesture theory of communication elaborated in the final section of the chapter. Chapter 4 then provides some examples of applications of the theory using examples of mediated communication and interaction.

4.1.1 Information Shapes, Information Shaping: Metaphor & Method

Lakoff & Johnson's (1980) classic, *Metaphors We Live By*, has become one of the best-known and most influential explorations of how the language we use shapes the worlds we live in. One of my favorite passages from the book is one that I don't recall ever seeing quoted or cited, but has stayed with me since I first encountered it:

Another example of how a metaphor can create new meaning for us came about by accident. An Iranian student, shortly after his arrival in Berkeley, took a seminar on metaphor from one of us. Among the wondrous things that he found in Berkeley was an expression that he heard over and over and understood as a beautifully sane metaphor. The expression was "the solution of my problems"—which he took to be a large volume of liquid, bubbling and smoking, containing all of your problems, either dissolved or in the form of precipitates, with catalysts constantly dissolving some problems (for the time being) and precipitating out others. He was terribly disillusioned to find that the residents of Berkeley had no such chemical metaphor in mind. And well he might be, for the chemical metaphor is both beautiful and insightful. It gives us a view of problems as things that never disappear utterly and that cannot be solved once and for all. All of your problems are always present, only they may be dissolved and in solution, or they may be in solid form. The best you can hope for is to find a catalyst that will make one problem dissolve without making another one precipitate out. And since you do not have complete control over what goes into the solution, you are constantly finding old and new problems

precipitating out and present problems dissolving, partly because of your efforts and partly despite anything you do.

The CHEMICAL metaphor gives us a new view of human problems. It is appropriate to the experience of finding that problems which we once thought were “solved” turn up again and again. The CHEMICAL metaphor says that problems are not the kind of things that can be made to disappear forever. To treat them as things that can be “solved” once and for all is pointless. To live by the CHEMICAL metaphor would be to accept it as a fact that no problem ever disappears forever. Rather than direct your energies toward solving your problems once and for all, you would direct your energies toward finding out what catalysts will dissolve your most pressing problems for the longest time without precipitating out worse ones. The reappearance of a problem is viewed as a natural occurrence rather than a failure on your part to find “the right way to solve it.” (Lakoff & Johnson, 1980, p. 144)¹⁰³

The “problem of communication” perfectly exemplifies this tendency of problems once thought “solved” to turn up again and again. Both as a theoretical problem of determining a proper ‘model’ of communication, and as a mundane challenge of social (and technological) interaction, the ‘problem of communication’ is one that never ‘dissolves’ completely or permanently. The traditional account of communication as information appeared to (dis)solve the problem for quite some time, largely because so many other basic and related problems were also able to be dissolved in its solution, e.g., information. But the elusive particulates that remained,

¹⁰³ A passage from Shotter (2013, p. 146), from an entirely different but related ‘context’, speaks to this metaphor in interesting ways: “what kind of ‘thinking’ is involved in our doing this? It must be of a radically different kind from the cause and effect *analyses* we often try in *problem-solving*. For it involves, not the building up of complexes of wholes from elementary parts, but the inner articulation of differentiation of an initially felt or sensed, global situation into a set of *intra-related* features or aspects which all have their existence *only in relation to each other* in constituting the whole within which they have their being.”

which we perhaps thought ‘small enough’ not to *matter*, continued to accrete. Now, even when we reject ‘transmission’ as an inadequate model or metaphor, we find that seeing into the solution is nearly impossible because we can’t get past the particulates.

4.1.2 Re-Solution: The Dis-solution of Information & Codes

The following attempts to re(-)solve the problems and issues discussed in the preceding chapters by carefully attending to the relation between the particular problems and the solution space(s) they co-constitute. In order to do this, I first return to the problem of information and ‘code’. Recent work in information theory (Floridi, 2011) provides a means of integrating the notion of information with what is herein described in terms of space-making, though the former has not, to my knowledge, been previously articulated in these terms. In the process, this contemporary account of information, perhaps surprisingly, is found to be consistent with recent neo-sophistic accounts of rhetoric discussed in Chapter 2.

As described in Chapter 1, the idea of communication as the exchange of discrete, ideally quantifiable, messages relies on a reductive concept of ‘information’ that has often made it difficult to distinguish between terms such as ‘information’, ‘data’, ‘knowledge’, and ‘meaning’, while conflating various concepts of ‘code’. Floridi (2011, p. 30) has sought to filter this murky solution through three levels of information, which (though Floridi does not make these connections himself) can be aligned with Halliday’s three types of code and Morris’s three aspects of grammar, as well as with Wiener’s three levels of human communication¹⁰⁴:

¹⁰⁴ The three types of ‘modes’ of communication (i.e., perception, reception, and interaction) identified in Chapter 2 do not align neatly with these three orders of information, codes, and signs—and there is no reason they should. The ‘modes’ characterize the relation of the

- 1) information *as* reality, or *environmental information*: “patterns of physical signals, which are neither true nor false”—analogous to or aligned with Halliday’s ‘code’ as a cipher, Morris’s *pragmatics* through Pierce’s notion of the *iconic*, and Wiener’s perceptual level of communication, which can be understood as a metonymic process (i.e., re-presentation, as a relation of close association or contiguity);
- 2) information *about* reality, or *semantic information*, which can be declared or formulated but is not necessarily true¹⁰⁵—analogous to or aligned with Halliday’s ‘code’ as a set of semiotic relations, Morris’s *semantics* through Peirce’s notion of the *indexical*,¹⁰⁶ and Wiener’s semantic level of communication, which can be understood as a synecdochic¹⁰⁷ process (i.e., (re)presentation, related by some form of direct, deictic connection or indicative association); and,

interactants to the process of communication; the orders of information characterize the *process* in relation to or for the interactants.

¹⁰⁵ This recalls Plato’s distinction between ‘knowledge’ [or *epistémé*] as necessarily true, and belief or opinion (*doxa* or ‘appearance’, which relies on *pisteis*, translated as ‘beliefs’/‘believes’, ‘proof’, ‘evidence’, etc.) as sociocultural constructions which may be true or false.

¹⁰⁶ This relationship between the semantic and the indexical explains why many (e.g., Scollon & Scollon, 2003) have identified indexicality as the basis of semiosis (i.e., as the process as making meaning).

¹⁰⁷ The relationship between metonymy and synecdoche is historically variable and ambiguous (see Chandler, 2002). Synecdoche, as a part-for-whole or whole-for-part relation, is sometimes understood as a form of metonymy, as a relation of contiguity or close association. In line with this reasoning, metonymy is traditionally understood as a form of indexical relation. I hope that

- 3) information *for* reality, or *syntactic information*: “genetic information, algorithms, orders, recipes”—analogous to or aligned with Halliday’s ‘code’ as a set of rules, Morris’s *syntactic* through Peirce’s notion of the *symbolic*, and Wiener’s behavioral level of communication, which can be understood as a metaphorical process (i.e., representation, related by arbitrary association).¹⁰⁸

While acknowledging various analytical and mathematical models of information derived from classical information theory (information *as* reality or code as cipher, and information *for* reality or code as syntactic ‘rules’), Floridi focuses on semantic information because all knowledge, including knowledge composed of the other types/levels of information, is mediated by and applied with semantic information.¹⁰⁹ Floridi defines (semantic) information as “well-

my alignment of the metonymic with the iconic, and the synecdochic with the indexical, will be gradually absorbed as the argument develops.

¹⁰⁸ This later aspect goes some way towards explaining why even ‘metaphorical’ approaches to language and cognition (e.g., cognitive linguistics) tend to remain mired in concerns about ‘grammar’ and the relation of semantics to syntax.

¹⁰⁹ This represents a contrast to conventional linguistics (with its emphasis on syntax) and social theory which have both regarded rules and rule following—information *for* reality, or the *symbolic* and representational—as the foundation of social order. However, as others have argued: “We do not act according to the rules, that is, by following rules ‘inside the head’. Rather, we generate patterns of coordination, and later, extract what seem to be the rules” (Gergen, 2009, p. 40, fn 6). This claim is supported by the fact that “rules cannot be specified in such a way that they can be followed. There are always cases that do not fit the rules. Rules cannot tell you how to follow them. That would entail an infinite regress. Therefore, shared expectations play a necessary part in enabling people to act in accordance with rules. [...] Rules are always incomplete and [...] action is instructably reproducible, not rule governed” (Rawls,

formed, meaningful, and truthful data” that becomes knowledge when it becomes relevant and properly accounted for. Information is data that has been perceived¹¹⁰, interpreted, and thereby made meaningful. The qualification of information as necessarily ‘truthful’ may at first seem to carry Platonic echoes of the ‘necessarily true’ nature of ‘knowledge’, but actually points toward the *necessarily framed* or hermeneutically encircled/bounded character of ‘information’ as opposed to the (supposed) discrete givenness of ‘data’, e.g., information as ‘stimulus’ which entails, according to Wiener, that information is neither matter nor energy: “Information is more a matter of process than storage” (Wiener, 1950, p. 121)—which does not mean that ‘information’ is a separate ontological category. In cybernetics (as in classical information

2002, p. 42-43). This is really just another way of pointing out that reality, as a semantic construct, is *indexical*. See also Shotter (1984): “Rules specify possibilities, and not all the possibilities they specify are necessarily realizable. That is why, of course, we have to test theories, and why also mistakes are often intelligible” (p. 227, fn 8).

¹¹⁰ It should probably be reiterated that ‘perception’ is a basic form of *interpretation* and *not* the unproblematic ‘input’ of ‘raw’ or ‘brute’ data as ‘stimulus’. To put it in overtly behavioral terms amenable to cybernetic theory (as a complement to the phenomenological on the way to the social and relational), the perceptual apparatus condition (act as affordances for) the reception and simultaneous interpretation of stimuli. “The phenomena are not considered by phenomenologists to be patterned and orderly in their own right. This is largely because the sorts of phenomena that phenomenologists discussed were generally natural and not social. The idea that natural phenomena present themselves in an inherently orderly fashion is problematic, but quite different from the argument that social scenes are constructed to appear orderly. Initially, phenomenologists made little distinction between the two. Order was thought to be supplied retrospectively, or at the moment of perception, either by the mind or by cultural typifications. The phenomenological position, in this regard at least, has a lot in common with postmodernism and [philosophical] pragmatism, wherein shared concepts, or ways of thinking, are thought to structure the world [...]” (Rawls, 2002, p. 31).

theory), information is (or ‘represents’, i.e. symbolically, as opposed to ‘presents’, i.e. indexically, or ‘re-presents’ i.e., iconically) an empirical stimulus to which a cybernetic system (whether ‘animal or machine’) reacts. Information, therefore, is also not the ‘content’ of ‘memory’. Memory, in cybernetics, is a system-state, a dynamic state that changes in reaction to the stimuli of incoming information.¹¹¹ In cybernetics neither ‘data’ nor ‘knowledge’ is distinct from ‘information’.

Floridi, in contrast, defines ‘data’ as a “lack of uniformity”—equivalent to Bateson’s cybernetic definition of (a ‘bit’ of) ‘information’ as “a difference which makes a difference” (Bateson, 1972, p. 271-272; see also p. 315-320)¹¹², which followed MacKay’s (1969) arguably more accurate “a distinction that makes a difference.” As a consequence, what constitutes ‘information’ for the early cyberneticists must always (even if tacitly or implicitly) be defined functionally in the particular situation: “Information-for-an-organism is operationally definable as that which confirms or changes [the organism’s] internal representation of the world” (MacKay, 1972, p. 8). In contrast, Floridi distinguishes ‘data’ from ‘information’, which

¹¹¹ Hence, for Bateson, ‘information’ constitutes “Message material (*i.e.*, successive transforms of difference) [that] must pass around the total circuit [of the cybernetic system], and the *time* required for the message material to return to the place from which it started is a basic characteristic of the total system. The behavior of the governor (or any other part of the circuit) is thus in some degree determined not only by its immediate past, but by what it did at a time which precedes the present by the interval necessary for the message to complete the circuit. There is thus a sort of determinative *memory* in even the simplest cybernetic circuit” (Bateson, 1972, p. 316; original italics).

¹¹² This definition is later clarified as “*any difference which makes a difference in some later event*” (Bateson, 1972, p. 381), which clearly indicates the cybernetic emphasis on systemic processes and temporality (and, hence, memory).

importantly serves to distinguish the interpretive frame that constitutes ‘data’ from the interpreting ‘receiver’—or, more accurately, *perceiver*—of ‘information’. A datum, according to Floridi, is a relational percept understood as uninterpreted information: a “mind-independent, concrete, relational point of lack of uniformity” (Floridi, 2011, p. 340). The relational character of the datum is significant because “nothing is a datum *per se*, without its counterpart”: the *black dot* on the white sheet of paper is not the datum; the datum is the totality of the *black-dot-on-a-white-background*, and the white background is as necessary as the black dot (or the absence of a dot) for the constitution of the datum. A datum is a marker indicative of a set of relations; *data* is *relationships*. In contrast, ‘information’ is *interpreted*, i.e., syntactically well-formed, meaningful, and necessarily truthful data, which are ‘meaningful’ and ‘truthful’ in relation to the constitutive order by which the information is understood. Data are never (cannot be) directly accessed—the uninterpreted datum is meaningless.¹¹³ Data (plural—as a system of relations) are, therefore, ‘affordances’ (enabling constraints) for the interpretation of reality.

As distinct from ‘data’, Floridi reduces the truth of semantic information to the adequacy of a corresponding model (i.e., ‘theory’) of the appropriate and applicable referent system (i.e., ‘world’), which comprises a *context*¹¹⁴ approached at a certain *level of abstraction* constrained by

¹¹³ Interpretation begins with categorization, but once a datum is categorized it becomes ‘information’. Categorization and interpretation – and therefore meaning – begin with perception itself (in the generative constraints, or ‘affordances’, of the specific perceptual apparatus); thus, there is no ‘direct access’ to ‘data’ and from this emerges the argument that we cannot know the world or the ‘thing-in-itself’. But this argument is a red herring (there is no space—it is the relations, not the ‘thing’, that is meaningful).

¹¹⁴ Having insisted that the term ‘context’ is a misnomer, it might seem strange to acknowledge and draw from it here. However, Floridi’s use of the term ‘context’ is consistent with the

a particular *purpose* (CLP), which entails that a *level of abstraction* is always intentional and teleological.¹¹⁵ This reduction is possible because any bit of information (i.e., interpreted datum) can be reduced to (and therefore can be understood as constituted by) a Boolean question-and-answer pair in which a positive answer confirms the accuracy of the model or theory by which the question is constructed (the theory, as a model, being a proxy of the referent system, or ‘world’/‘reality’, being interpreted). Therefore, “semantic information is not truth-bearing but truth-constituted”: ‘information’ (in contrast to ‘data’) is defined as necessarily true because it constitutes a positive answer to a Boolean question, verifying and validating the model of the referent system, which is based upon, or ‘is a proxy of’, and therefore is mediated by, a CLP.¹¹⁶ However, this means that truth (as well as the model of the referent system) is always relative to the constitutive CLP. Truth = consistency with the model (i.e., theory) of a *context* approached at a certain *level of abstraction* constrained by a particular *purpose*.

What this amounts to is a logical formalization of neo-sophistic or postmodern rhetorical theory, a formulation of hermeneutical validity and verification as not only statistical (probablistic) but also pragmatic¹¹⁷:

common use of the term as equivalent to what I am calling a ‘space of relations’. The fact that it is etymologically suspect doesn’t abrogate its use in this ‘context’.

¹¹⁵ This amounts to a logical reformulation of Kenneth Burke’s notion of the *entelechy* of a terminology or (to stretch a bit further) Deleuzean *desire*, as will be discussed below.

¹¹⁶ Compare Bateson (1972, p. 273): “A single *bit* of information—a single difference—may be the yes-or-no answer to a question of any degree of complexity, at any level of abstraction.”

¹¹⁷ And also consistent with what Shotter’s (1993) psychological social constructionism terms “situated realism” (p. 40)

semantic information is an *objective* (i.e., not subjective) but also *liminal* (that is, neither internal nor external) and *relational* (that is, neither absolute nor relative) concept, like food. It makes little sense to talk about the presence and nature of food without any reference to the specific type of feeder.¹¹⁸ Likewise, something counts as semantic information only with respect to a specific type of informee. [...]he sort of accessibility [to truth in the form of information] at stake here is a matter of pragmatic or factual interaction, which provides an exogenous grounding of correctness. It is the one that we find specified in computer science, where accessibility refers to the actual permission to *read* (technically, *sense* and *retrieve*) and/or *write* (again, technically *modify* and *record*) data as a *physical* process. The result is that *a*'s [the agent's] *proximal access* to *m* [the model/theory] commutes with *a*'s *distal access* [via some proxy or meditational means] to *s* [the referent system, i.e. world] if and only if *a* can read/write *s* by reading/writing *m*. (Floridi, 2011, p. 197; original italics)

In other words, any instance of interaction with the world is necessarily mediated by a model/theory aligned with a *context* approached at a certain *level of abstraction* constrained by a particular *purpose*.¹¹⁹ The “reading and writing” (or modifying/recording) of reality (as a “referent system”) through a model/theory is mundanely illustrated in everyday performativity of the speech act variety—‘symbolic action’ in the dimensions of the locutionary (the ‘said’), the illocutionary (the ‘intended’), and the perlocutionary (the effective result): the *representational* (the *symbolic*) is enacted in the *pragmatic* (the *iconic*) and becomes meaningful only in the *performative* (the *indexical*).

¹¹⁸ So, again, the semantic is indexical: food, as ‘food for’, ‘(re)presents’ (in synecdochic reference to) the (type of) feeder—food and feeder are co-constitutive.

¹¹⁹ To be even more accurate (though hopefully obvious), it could be noted that any model and gradient of abstraction are also shaped by the given perceptual and cognitive apparatus, which has in turn been shaped by and in relation to its co-constitutive environment.

The relation between model and system is not one of pictorial representation or resemblance or similarity (no metaphorical mechanism of mirroring or photocopying is at stake here) but one of fit, in the way in which a key ‘corresponds’ to a lock.¹²⁰ To think that CTT [this correctness theory of truth] supports an ‘any key works’ sort of policy would be a mistake. [...] As in statistics, in CTT we never talk about the ultimate, real nature of the world in itself, but compare data sets (the model) to data sets (the system), or phenomena (in the Kantian sense) to other phenomena (still in the Kantian sense). According to CTT, truth is a successful transduction of models among possible worlds. With a slogan: *truth is commutation*. (ibid, p. 201)

The truth of semantic information, therefore, is a function of a model of the referent system conditioned by the parameters of CLP:

‘Milk, snow, and teeth have the same colour’ is true if and only if ‘yes’ is the correct answer to the corresponding Boolean question, but now one cannot determine whether that answer is indeed correct unless one specifies the context in which, the level of abstraction in which, and the purpose for which that question is being asked. Change the available palette (different level of abstraction) or the purpose (redecorating the living room, say, instead of having a tooth replaced), for example, and the question may receive different answers. This is not relativism, it is, for want of a better word, ‘precisism’. (ibid, p.204)

In other words, semantic information (which is necessarily true) must (also necessarily) be theoretically and situationally *relevant* if it is to be counted as ‘information’ at all.

The importance of a clear concept of information and data should be obviously methodologically relevant to any investigation of social and interactional processes. What Floridi points toward is a way to bridge the divide between the quantitative and qualitative, deduction

¹²⁰ Kress (2010) speaks of this in terms of the relation of “aptness” between the form and meaning of the necessarily socially constituted sign.

and induction, analysis and synthesis, division and combination, categorization and generalization, by pointing out that quantification happens only within the constraints of the abstraction of a theoretical model because, as Bateson points out, “*choices*,” whether in cognition or communication (which in cybernetics amount to the same thing), “*are not all at the same level*” (Bateson, 1972, p. 405).¹²¹ On the one hand, this is a reformulation of common arguments in postmodern rhetorical and hermeneutic theory, echoed in other terms by scholars such as Thomas Kuhn and Stephen Toulmin (among many, many others, as discussed in Chapter 2), that even the most positivistic regimes of quantification are necessarily based on rhetorical assumptions and interpretive constraints: plainly, “the quasi-causal laws of the explanatory approach [i.e., positivistic empirical description] can only have their being within a hermeneutical framework, a shared and agreed system of interpretation” (Shotter, 1980, p. 31). This point has been made by many, including Bateson who argued that an uneven emphasis on induction in the social sciences has led to “a mass of quasi-theoretical speculation unconnected with any core of fundamental knowledge” (Bateson, 1972, p. xx)¹²². Floridi’s logical formalization, on the other hand, when applied to questions of methodology and epistemology, supports a Tardean reconfiguration of the basis and value of quantification in the investigation of the social world—the world of human interaction.

¹²¹ Bateson’s (1972, p. 266) theoretical position, based on Bertrand Russell’s theory of logical orders and types, is presented in terms of “an infinite regress of contexts, linked to each other in a complex network of metarelations,” a position that anticipates much in the semiotically infused postmodern linguistic turn. See also the essay “The logical categories of learning and communication” (1972, pp. 279-308).

¹²² In another passage, Bateson refers to this privileging of the ‘objective’ over the ‘subjective’ as accounting for “all the imps but no gods” (p. 46).

As Bruno Latour (2010) has recently elaborated, though Gabriel Tarde was demonized by Emile Durkheim and his followers as an opponent of quantification and generalization in sociological investigation, Tarde in fact was well ahead of his time in understanding the role of quantification in the investigation of social phenomena. Where Durkheim is generally read as dealing with the social realm as a generalized abstract construct based around a series of statistical means¹²³, Tarde insisted that advances in statistics and processes of measurement would allow for ever greater quantification leading ultimately not to more refined abstractions but more direct access to the reality of social processes—which is precisely the intention and hopes behind current developments of ‘big data’. Statistical abstraction, Latour points out, was developed in the natural sciences as a necessary crutch making up for a *lack* of access to the phenomenon being studied. The astronomer has no direct access to the star; the biologist no direct access to the gene (which is itself a statistical abstraction). But the social scientist often *does* have direct access to the phenomena and agents being investigated. In the study of mediated social interaction this is clearly the case—certainly in comparison with the natural sciences. A

¹²³ This may, however, be another generally accepted ‘misreading’. Rawls (2002, p. 20-21) argues that “Durkheim’s focus on details and practices has been systematically overlooked. He repeatedly stressed the importance of detail with regard to the study of practices. As early as 1893 in *The Division of Labor* Durkheim criticized the belief of his contemporaries that details are not necessary and even misleading because ‘detailed studies make us lose sight of the whole vista of human knowledge,’ an attitude that still characterizes the discipline today. By contrast, Durkheim argued that the details of practices that can only be known through personal experience, working at a practice firsthand, constitutes the heart of modern science. These details, he argued, are lost through generalization. Thus, according to Durkheim, ‘the dissonances of detail disappear in the total harmony’ of a general theory. Furthermore, as each science consists in this detail, modern science is threatened, he argues, by the focus on conceptual generalization.”

dataset comprising text message interactions (especially one including rich metadata) is not a transcript of conversation(s) even in the way that a record (in whatever medium) of a face-to-face conversation is for the conversation analyst; it *is* the conversation, often analyzed and investigated in the same format in which the messages themselves were both produced and received—the main abstraction being temporal and the main problem being not the ‘information’ itself (as ‘message’ ‘transmitted’ and ‘received’) but the CLPs constitutive of that information for¹²⁴ the involved interactants (including, critically, the researcher).

Floridi points out (formally) that all quantification relies on a theoretical model that accounts for the investigated phenomena within a particular context, at a particular level of abstraction, and for a particular purpose, within which the ‘data’ gathered act as interpretive affordances in their own becoming-‘information’. An important aspect of Floridi’s account is that a phenomenon in a particular context of investigation can be addressed at a variety of interrelated levels of abstraction (or scales of quantification), which are differentially applicable for differential interpretive and investigational purposes.¹²⁵ Information generated in one context and/or level of abstraction can sometimes be applied to another, though always with some measure of incompleteness and translation—which is why a (big data) Tardean dream of more ‘direct access’ to reality via ‘information’ must be tempered: the ‘via’ indicates the inescapably *mediated* character of that ‘access’. Floridi accommodates the ability of information (as ‘signs’)

¹²⁴ *Information for* reality, again, being the function of the symbolic, as syntactical and representational

¹²⁵ It is in this way that Floridi’s *level of abstraction* can be understood as analogous to a (semantic) code describing (or constituting) ‘information *about* reality’ and in this way also resonates with, e.g., Gergen’s (2015) discussion of the constraints of theoretical structures.

to float among different contexts and levels of abstraction with the concept of *gradient of abstraction*: a set of interrelated *levels of abstraction* (i.e., social semiotic ‘codes’) sharing (though not uniformly) an overarching set of constitutive syntactical relations (i.e., ‘code’ as defining rules). Again, this position is not *relativist* but *relational—constructionist*, though not *constructivist*. And it is precisely in this sense that Floridi’s philosophy of information can be read as a formalization of postmodern rhetorical theory.

The problem of information, then, is a problem of the relationship between ‘text’ and ‘context’, though again, this terminology reverses the proper emphasis by privileging the imaginary point (e.g., datum, node) and line (e.g., information, link) over the constitutive space of relations (as the marked term ‘context’). When information is understood as being constituted by the ‘context’ (as opposed to the ‘context’ being constructed from or built by the bricks of ‘text’), accounts of language and communication as symbolic action can be related more clearly to accounts of information as a marker and mediator of relations. At an interactional level, we can understand this as a process of space-making aiming, in Sperber & Wilson’s terms, for ‘ostensive-inferential relevance’ within the enacted space of (e.g., conceptual) relations. In other words, where Bateson (1972, p. 250) argues that “the ‘contexts’ and ‘contexts of contexts’ [or, in Jakobson’s terms, ‘codes’ and ‘subcodes’] [...] are only real or relevant insofar as they are communicationally effective, *i.e.*, function as messages or modifiers of messages,” herein I am arguing the dialectically opposite: ‘messages’ are only “real” (effective or affective) insofar as they *indicate* relational functions made relevant within a constitutive ‘context’ or space of relations.

Harold Garfinkel's (2008) sociological theory of information¹²⁶ and his associated 'ethnomethodology' (Garfinkel, 1967) directly address this problem of 'text' and 'context' generated in interaction by providing a means of critically and reflexively constructing and utilizing information as symbolic action (in, perhaps, some fulfillment of Tarde's hopes) that does not abandon the fruits of quantification (as developed by Durkheim).¹²⁷ Garfinkel's position bears a clear resemblance to and is broadly compatible with Floridi's approach to information, though Garfinkel does not specifically distinguish among data, information, meaning, and knowledge. Floridi, as seen above, grounds his position in a "correctness" theory of truth, while Garfinkel applies a "coherence" theory of truth, both agreeing that the relationship between the observer and 'reality' is mediated by a set of situationally relevant interpretive constructs, "gradients of abstraction" for the former, "orders of interaction"¹²⁸ for the latter. Floridi's work

¹²⁶ Garfinkel developed his approach to information as a contemporary of and in conversation with information and cybernetic theorists such as Bateson and Deutsch. His position, devised as a corrective to what he saw as their overly rational and reductive approaches to 'information', was first formulated for a 1952 Princeton seminar for the Organizational Behavior Project and entitled simply "Memo #3." Though Garfinkel's approach to information is foundational to the subsequent development of ethnomethodology, it has only recently been published in monograph form as *Toward a Sociological Theory of Information* (Garfinkel, 2008) with an extensive and lucid introductory discussion by editor Anne Warfield Rawls.

¹²⁷ For a more conventional but rich sociological discussion of the place of information communication technologies that builds on Durkheim and Weber via Goffman, see Schroeder & Ling (2014).

¹²⁸ The term 'interaction order' is most typically associated with Goffman rather than Garfinkel, especially in communication and media studies. I use Garfinkel, rather than Goffman, for a number of reasons. First, Garfinkel's concept is chronologically prior—and Goffman was a colleague and an early reader of Garfinkel's theory of information and subsequent

attempts to bridge the divide between concepts of information applicable to artificial and ‘natural’ intelligence, thereby privileging a more conventionally formal analysis. The key difference between Floridi and Garfinkel, then, is apparent in the latter’s emphasis on the explicitly social character of information: for Garfinkel, information (and therefore ‘reality’) is constituted by *orders of interaction*:

There is no information without an order generated by actors orienting toward rules – or constitutive practices – that they use to produce that order. Information can only be perceived against such orders. On the other hand, information is not just created by the human perceiver, not just emergent as some argue. Practices have histories, and changes occur in the stable context of those histories. It is the ability of human communicators to make common intelligible sense of what is there – to use shared practices for doing this, and to see anomalies against a background of order – that constitutes the social. [...] While objects may be concrete, however, it is social patterning that gives things and information meaningful and public form. (Rawls, 2008, p. 47-48)

Again, for Floridi, (semantic) *information* is (syntactically) well-formed, *meaningful*, and truthful *data*, qualified as such in relation to a *model* of a *context* at a particular *level of abstraction* constituted for a particular *purpose*. What Garfinkel adds to this is to emphasize that what Floridi calls a *gradient of abstraction*, which serves to organize experience, is generated in

ethnomethodological program, an influence which is apparent in retrospect. Second, Goffman’s privileging of the micro-sociological interaction, which is rich and valuable, is nevertheless particularly prone to exactly the kind of analytical reduction being criticized herein, and, third, is heavily culturally and (increasingly) historically specific if not ethnocentric. Where Goffman largely focuses on *describing* interaction orders and processes based (with little acknowledgment) on Kenneth Burke’s theory of identification, Garfinkel provides (in my opinion) a more explicit *means of description* and understanding of previously unknown orders of interaction. If nothing else, Garfinkel should be given his due.

an explicitly and necessarily social and relational context: “The social is exactly what information is [... S]ocial ‘things’ exist as things only in and through their relationship to a whole fabric of social relationships in and through which they are constituted – just like information” (Rawls, 2008, p. 41). The world and the things in it (i.e., ‘reality’) exists only as sets of relations, at every level of abstraction: a *datum* is a marker of a perceived relation (e.g., black-dot-on-white-background); *meaning* names the relation between data and a constitutive order of interpretation; *information*, as well-formed, meaningful, and truthful data, is defined as such relative to a constitutive interpretive order; *knowledge* is contextually relevant information; and orders of interpretation (or gradients of abstraction, etc.) are necessarily social (relational) formations necessarily occurring in interaction, in communication. Is it precisely the relationally ordered character of ‘reality’ that makes reality ‘real’.¹²⁹

This position, then, is not *relativistic* in the sense that any interpretive order or gradient of abstraction is as good as any other; it is *relational* in the sense that knowledge is constituted *in relations* – of relevant information comprising well-formed, meaningful, and truthful data generated in relation to a particular context, at a particular level of abstraction, attended to for a specific purpose. What counts as information is similarly relational: “*Any factor that conditions the characteristics of organization of experience, conditions the characteristics of information*”

¹²⁹ This perspective, shared in different terms by Garfinkel and Floridi, is importantly different from phenomenology and many forms of [philosophical] pragmatism, for example, which generally argue that people have no direct access to ‘reality’, which is mediated by perceptual or interpretive orders. For Garfinkel, in particular, it is the social (intersubjective) orderedness of phenomena that demonstrate their reality. This “does not mean real in a positivist sense of an independent objective existence. Social order is made. But it is also takes physical form and as a coherence can be seen, heard (touched, smelled, etc.), and recognized” (Rawls, 2002, p. p38).

(Garfinkel, 2008, p. 142, original italics). No object or idea stands alone, and no object or idea is understandable apart from its constitutive relations. Objects and ideas are known (e.g., ‘acknowledged’, accounted for) only through their constitution as ‘information’. This is true for the perceptual ‘information’ of the organism as well as for the ‘data’ (in common parlance) acquired by the researcher—the two are fundamentally (if not necessarily functionally or operationally) equivalent.

In order to accommodate this inescapable situation, Garfinkel asks, what if we drop the assumption that in order to describe a usage as a feature of a community of understandings we must know what the substantive common understandings consist of. With it, drop the assumption’s accompanying theory of signs, according which a ‘sign’ and ‘referent’ are respective properties of something said and something talked about, and which in this fashion proposes sign and referent to be related as corresponding contents. By dropping such a theory of signs we drop as well, thereby, the possibility that an invoked shared agreement on substantive matters explains a usage. (Garfinkel, 1967, p. 28)

What if, in other words (and perhaps just a bit less radically), we are more careful to distinguish between the ‘code’ of the situationally operational syntactical (symbolic-metaphorical) system and the ‘code’ of the situationally operational semantic (indexical-synechdocal) system and not take for granted their relation as a (pragmatic iconic-metonymical) cipher? Then, we are left with “two large consequences for addressing the task of describing a communicant’s [i.e., a research informant’s] information: (1) Each world has an order of information peculiar to it; and (2) the order of information is a function of the mode¹³⁰ of attending to it” (Garfinkel, 2008, p. 130). Garfinkel’s ethnomethodology is designed to

¹³⁰ i.e., ‘mode’ of perception and interaction as much as (if not more than) of reception.

uncover the constitutive orders of interpretation that both evolve organically and are negotiated or normatively imposed, maintained, and reinforced in interaction—ethnomethodology is “the study of the methods people use for producing recognizable social order” (Rawls, 2002, p. 6), or for mapping levels of abstraction.

What such a perspective relies upon is an understanding and operationalization of *relevance* to a particular level of abstraction. In semiotic and linguistic studies, the operationalization of relevance has amounted to the pragmatic application of what in classical rhetoric was called *kairos* or ‘appropriateness’ or ‘timing’ and ‘opportunity’ (Miller, 1994). Originally developed as a component of classical rhetorical *techne*—saying the right thing at the right time and the right place, i.e. for the swaying of the specifically situated audience—it gradually developed the further sense of ‘appropriateness’ or ‘decorum’, to blend opportunity with normativity.¹³¹ In this way *kairos*, in the guise of *relevance*, unlocks constitutive processes of interactional order:

If one assumes, as Garfinkel does, that the meaningful, patterned, and orderly character of everyday life is something that people must work constantly to achieve, then one must also assume that they have some methods for doing so. If everyday life exhibits a patterned orderliness, a recognizable coherence, as Garfinkel believes it does, then it is not enough to say that individuals randomly pursuing shared goals will do similar things enough of the time to manifest trends, or patterns, of orderliness in society [...M]embers of society must in fact, actually, really, have some shared methods for achieving social

¹³¹ *Kairos* and *chronos* are the two Ancient Greek words for ‘time’ (Smith, 1969). Where *chronos* is quantitative, historically orienting time (e.g., the ‘timeline’ on which different moments in time are related), *kairos* is qualitative—the relevant moment or oriented point in time. This aspect of relevance made *kairos* an important rhetorical concept because successful persuasion requires saying the right thing at the right time to the right (intended) audience. *Kairos* was the Presocratic version of what in ancient China became ‘situational ethics’.

order that they use to mutually construct the meaningful orderliness of social institutions. (Rawls, 2002, p. 5)

Those methods are identifiable with attention to what people find relevant in particular situations, which is most directly approached through attention to communicative functions: what people are trying to do and accomplish in interaction (however mediated). Kress discusses this situational relevance in terms of the ‘interest’ of a communicator:

‘Interest’ is the articulation of an individual’s relation to an object or event, acting out of that social complex at a particular moment, in the context of an interaction with other constitutive factors of the situation which are considered as relevant by the individual. (Kress, 1993, p. 174)

Investigational methods that account for such kairotic ‘interest’, relevance, and the dynamics of interactional relations require taking care to not take constitutive interactional and normative orders for granted as ‘codes’, thereby conflating ciphers, rules, and semantic systems implemented ‘automatically’ in the ‘transmission’ and ‘exchange’ of ‘information’. It means, in other words, not privileging the constitutive syntactic and symbolic over the functional performative enactment of the indexical and pragmatic—it means paying attention to what interaction *does* at least as much to what communication *is*.

The careful reader will notice some semantic slippage thusfar in the term ‘pragmatic’, even given the discussion in previous chapters. This is hardly novel. The term ‘pragmatic’ has been notoriously difficult to nail down, having been used in a wide variety of different areas and to an impressive array of purposes by those following in the wake of the American pragmatist philosophers of the turn of the 20th century (e.g., John Dewey, William James, Charles Sanders Peirce). Here it is important to understand two main flavors of the term, which are both

implicated in the larger argument being presented. The first is the traditional linguistic and semiotic sense of the pragmatic as differentiated from the syntactic and the semantic:

1. *syntactic*: recognition of the sign (in relation to other signs) [i.e., symbolic and metaphorical]
2. *semantic*: comprehension of the intended meaning of the sign [i.e., indexical and synecdochical]
3. *pragmatic*: the interpretation of the sign in terms of relevance, agreement, etc. [i.e., iconic and metonymical] (Chandler, 2002, p. 194)

These three aspects (or, yet again, ‘modes’) of signification (i.e., recognition, comprehension, and interpretation) are typically distinguished in terms of the ‘arbitrariness’ of the sign: i.e., the *symbol* can be wholly arbitrary (metaphorical), there being no necessary connection between ‘signifier’ and ‘signified’ as name to person; the *icon* betrays some direct relation between ‘signifier’ and ‘signified’ (metonymical), as the photograph or portrait to the person; and the *index* falls in between these two indicating a direct association between ‘signifier’ and ‘signified’ (synecdochical) as fingerprint to person. (These categories are not mutually exclusive: a signature, for example, clearly has both symbolic and indexical properties.)¹³² Thus, the *syntactic* (the symbolic system or information *for* reality) is said to

¹³² We might also note the (‘clearly’) implicit visual bias even in these basic categories. Only with much comparative difficulty and complexity could an olfactory, gustatory, or tactile ‘sign’ be ‘arbitrary’ (in the sense of purely symbolic)—at least for humans. Gergen (2015) discusses this ocular bias as a basic constituent of much research and theory in general, which is ‘seen’ in common terms of ‘revealing’ or ‘illuminating’ the ‘clarity’ of ‘apparent’ truth. Even the term *evidence* is based on a root that privileges the visual character of information. It could even be argued that the concept of indexicality has a visual bias rooted in its paradigmatic gesture of

encode the *semantic* (the indicated meaning or information *about reality*) through the *pragmatic* (the immediately situationally relevant, or information *as* reality). In this way, the pragmatic is also understood, in a second sense, as ‘functional’ (derived from *pragmatikon* as discussed in Chapter 2) in being associated with the ‘performance’ of language in specific situations. In this functional sense, then, the ‘pragmatic’ accommodates the nonverbal, the metacommunicative, and the para- and extra-linguistic—all those indicators or enactments of ‘context’.

However, I would argue that these distinctions are less helpful as characterizations of the ‘sign’ than of the constitutive ‘code’ (as space of relations) enacted in and enacting a given situation: the *pragmatic* (*as* reality) indicates and enacts the *semantic* (*about* reality) through the (mediation of the) *syntactic* (*for* reality). This may make more sense if we set aside the term ‘code’ altogether, along with its all too easily confused senses of arbitrary (metaphorical) symbolic rule-system, social semiotic (synechdochical) meaning-system, and (metonymical) cipher. Instead, by privileging the pragmatic as functional enactment, we can emphasize the mediational means of that enactment as space-making. In this functional sense, the pragmatic is understood to be necessary to and for the indication or making of meaning. While a ‘sign’ may be arbitrary, meaning is always indicated within a constitutive space of relations (meaning, in actuality, *being* those relations).

In this sense, the means of mediation (of meaning) are always first and foremost pragmatic in that they actively constitute the spaces of relations in which interaction happens. Mediational means of interaction are forms of Garfinkel’s (2008) “shared methods for achieving

‘pointing’. It is for this reason, I suspect, that Shotter (2013, discussed below) prefers the term ‘specificatory’ to what is discussed herein as ‘indexical’ (though *spec* is also a visual root, as in ‘spectacles’).

social order” (or relatively – even if inevitably temporarily – stable spaces of relations) that can be described using Scollon’s (2001) five characteristics (described in Chapter 2): dialectical, historical, partial, connective, and classificatory & representational. Such means include but are not limited to technologies of communication—mediated communication is not of a different logical order than communication as interaction more broadly. *All* interaction is ‘mediated’ because interaction *is* ‘mediation’: means of generating, enacting, and maintaining (or enforcing or contesting) interactional order. In this sense mediational means sometimes serve as spaces of relations (e.g., social media platforms and their networks). But, as Chapter 2’s discussion of locative media hoped to make clear, media technologies are not *merely* spaces of relations for ‘users’. Technologies, like (and sometimes with or in service of) organizations (and ideologies), can act not just *for* us but *upon* us—can instrumentalize their ‘users’. This means that when we understand mediational means—and especially media technologies—as enacting spaces of relations, we must understand those enactments as *active*, both as constitutive and as agential. In order to do so, we must next integrate an understanding both of action (as in ‘enactment’ and ‘interaction’) and of the actors engaging in such action. Meaning is made, but by what/whom and by what means?

4.2 Actors, Agents, Action, & Agency

Conventionally, the concept of agency (the power to act, i.e., to effect action) has been inextricably bound to the idea of the volitional agent, ideally defined as a rational human actor characterized by implicitly Cartesian if not explicitly phenomenological, willful intentionality. As Coole points out,

It is not just that agency has conventionally been defined as a property unique to humans; inversely, the characteristics that have traditionally been held to define humans and to

render them a distinctive and privileged species have been used to define the characteristics of agency, namely, cognition and rationality (and masculinity). (2013, p. 457)

In the field of communication, specifically, questions of action and agency have been gurgling and growling from below, though they have (relatively) rarely been addressed directly. The problem of agency is integral to the problem of communication, particularly the problem of understanding the ramifications of the ongoing explosion of digital communications technologies, which has tremendously expanded the range of possibilities for social interaction—and therefore tremendously complicated conventional concepts of action as understood through the constraint of conventional intentionality. We now interact with software ‘agents’, some of us nearly continuously—some of us, over some spaces of time, more than with actual people. There can be little argument that the acts of such agents, however they might be defined, have a significant impact on our daily lives, an impact that, on the surface at least, seems directly tied to our access to technology. But such obvious facts seriously trouble our notions of not just agency, but intentionality itself. We often treat our technologies as if they were conscious actors because from our ‘user’s’ perspective their ‘behavior’ is so obviously analogous to what we understand to be the behavior of a classically, prototypically intentional agent. As psychologists like Simon Baron-Cohen (1995) have demonstrated, our minds have evolved to attribute intentionality first (typically based on the perception of movement and/as response), and to revise that judgment only with further evidence. (This is evolutionarily advantageous: if something shifts in the foliage near your feet, better safe than snakebit; if something rustles in the bushes in the corner of your eye, better to be safe than dinner.) Many of our digital agents, of course, are specifically

designed to elicit such a response from us in order to provide a more functional interface.¹³³ On the other hand, we also understand these technologies, ever more obviously, in a McLuhanesque sense, to be extensions of our own agency and intentionality. If these new technological appendages extend our range of action, how and where (and for whom) they do so is significantly problematic. As already discussed, early studies of digital communication technologies were thus led, quite naturally, to conceptualizations of ‘disembodied action’ in ‘cyberspace’. This response to the promise of medium studies attempted to account for the new forms of action at a distance (new forms of the interactional situation or new ‘contexts’) being made possible, but had no obvious way to account for changes in the concept of agency required to fully understand those forms. The resulting tensions led or added to growing concerns about, on the one hand, ‘embodiment’, especially in feminist theory, and on the other hand, what constitutes an ‘agent’ or ‘actor’, such as in actor-network theory and Deleuzean theory. These typically offered either a broadening or significant problematizing or a flat-out denial and erasure of the classical notion of intentionality, which often involved grappling with ideas of ‘affect’, and sometimes emotion, understood to be vital to any conception of conscious human action but denied or denigrated by the privileging of the ‘rational individual’ as the basis of conventional intentionality.

¹³³ Automated call-directing systems, for example, that speak in the comfortable tones of a helpful human agent and scan for and recognize keywords in natural language to triage customer service interactions.

4.2.1 Agents, Action, & Embodiment: Affect & Emotion

In opposition to this privileging of the disembodied, ideal, rational individual, various concepts of ‘embodiment’ have been offered over the past few decades that reflect and build upon the earlier growth of interest in ‘nonverbal’ communication touched upon in Chapter 2. The general inclination of these accounts involves some degree of acknowledgement that the “distinction between verbal versus non-verbal communication is an artificial one”:

Rather, we should attend to unified acts of coordination, with words/movements/facial expressions forming a seamless whole. Remove the threads of any, and the cloth is undone ... or it becomes part of different garment. (Gergen, 2009, p. 34)

Where theories of ‘embodiment’ generally posit a diffusion or emanation of intentional agency from a spatiotemporally localized physical and emotional body, metaphors of networks and ‘rhizomes’, which also insist on ‘embodiment’, can result in the diminution or subsumption of intentional human agency within a matrix of human and nonhuman agents and agencies. Such accounts provide a much more realistic and theoretically rich framework for understanding action and interaction in a highly interconnected world (and what world isn't?), but the contrast between these two general approaches (which is an artificial distinction, at best—there was and is much overlap in discussions of bodies and networks, rhizomes and assemblages) reveals the inherent, gnawing problem to be the conventional notion of intentionality itself. While very few people will admit to Cartesian assumptions, such assumptions, as the quote from Coole above indicates, are deep and sticky. The basic conception of a conscious, rational, human thinker as the prototypical ‘actor’ or ‘agent’ – and therefore the assumption of classical intentionality – rarely seems to have been so much as questioned (though it has occasionally been denied, as if refusing to address the idea of intentionality will make it go away). Actor-network theory, for example, expands the idea of an ‘actant’ to a more fluid and potentially collective form that

includes both human and nonhuman components. But it achieves this combination by simply denying intentionality or completely separating the concept of *actor* from the concept of *intention*: actions happen; they are not always or necessarily intentional.

Pickering (1995) theorizes social action (from the perspective of the sociology of science) as evolving practices constituted and performed by human, non-human, and “disciplinary” agencies¹³⁴, but, following Latour, he seems to consciously elide the question of intentionality or at least take the conventional notion at face value. But again, denying or ignoring intentionality doesn't get rid of it. Being the prototype for the concept of agency, it just stays in there, festering below the surface. A more recent account is Cooren's (2010) *Agency and Action in Dialogue*. Cooren draws from Latour and Deleuze and Guattari to contest the conventional notion of (individual) intentionality with the metaphor of “ventriloquism.” Coming from a background in discourse and organizational studies, Cooren posits collective agencies, in the vein of Latour's “actants” and Deleuze and Guattari's “assemblages,” arguing that humans are often (perhaps typically) merely the mouthpieces or “dummies” through which larger, discursively generated, instantiated, and propagated agencies (including ideologies) “ventriloquise.” He places human agents (loosely) at the center of a theoretical orientation to process that allows the examination and investigation of the point of interaction (typically in dialogue) in which “downstream ventriloquism” describes illocutionary forces and perlocutionary effects, while “upstream ventriloquism” describes “pre-locutionary” forces that determine the bounds of human action within the limits (e. g., terministic screens, ideologies, etc.) of the larger assemblages to which humans (and their locutionary symbolic actions) are subject. Cooren explicitly characterizes human beings as embodied and, importantly, affective agents. One problem is that his conception

¹³⁴ I'd like to thank David A. Banks for bringing Pickering to my attention.

of ‘embodiment’ indicates a vague notion of ‘that which is named’: a “body” is that which is understood as a coherent configuration and can be named as such, a configuration that is divested of the necessity of materiality—any coherent thing/object/process that can be conceptualized as ‘acting’ is understood as ‘embodied’ in and through the act of being named as an actor/agent, and thus ‘called or hailed into being’. This draws from Deleuze & Guattari’s (1987, p. 80) use of the word ‘body’ “in its broadest sense (there are mental bodies, souls are bodies, etc.),” from which they also derive the ‘body without organs’; but this might be better understood through the idea of ‘space’ via the ‘naming’ process of territorialization (rather than divesting the term ‘body’ of any necessarily material aspect). Another problem is Cooren’s reliance on recent work in affect theory (specifically Massumi, 1996, 2002), which makes the first problem possible, and which, while rich, has some significant problems of its own (discussed below).

Theories of embodiment, and those that rely on ideas of embodiment, tend to rely heavily on conceptualizations of affect and emotion because, thanks particularly to the Cartesian opposition of the emotional body to disembodied reason, affect and emotion are understood as paradigmatically embodied. The connection of the body to the emotions was quite clear to the ancient Greeks and can be read in the divergent route of the root *path* ($\pi\alpha\theta$), defined as ‘of or relating to feelings or emotions’, and ‘feelings’ as ‘symptoms’ understood as ‘signs’ of dis-ease. *Pathos*, most directly, means ‘suffering’, e.g. the French *pathétique* is ‘that which causes emotion’. In Latin, a *patheticus* was the passive (‘suffering’) partner in sexual intercourse¹³⁵; hence, the gendered connections among *pathos*, suffering, feeling, emotion, and disease (seen, for example, in the notorious example of ‘hysteria’). Similarly, a *pathetos* was one who was

¹³⁵ In the 17th century *pathic* was used specifically to denote the passive partner, often a boy, in homosexual anal intercourse.

‘liable to suffer’ or was ‘subject to external influence’ (‘patheism’ was another early term for hypnotism). Thus in English, ‘*path*’ words split between terms related to feelings or ways of feeling (e.g., empathy, sympathy, apathy) and terms related to sickness and disease (e.g., pathological, psychopath, sociopath—the latter two of which also directly relate to feelings and emotions). The related root *patho* (παθῶ) also derives from the Indo-European root *pent-* referring to ‘going on a journey or to find’; thus, *-path* as a suffix was used to describe a practitioner (e.g., a homeopath), and the understanding of feelings as symptoms leads the medical practitioner along the path to the root or cause of dis-ease. In the 17th century, the beginnings of scientific rationalism, which was typically practiced in Greek and Latin, thus made a direct (and heavily gendered) connection between emotion and disease. In the 16th century, ‘pathology’ could mean either ‘the study of disease’ or ‘having to do with the feelings or emotions’ or even refer to what we would today understand as ‘psychology’: a ‘branch of knowledge that deals with the emotions’. By the 17th century, however, *pathos* had been pathologized, and ‘pathognomic’ and ‘pathological’ as ‘of or relating to the emotions’ were overwhelmed by ‘pathognomic’ and ‘pathological’ as ‘specifically characteristic or indicative of a particular disease or disorder’, e.g. a pathogen. Emotions located in the feeling body, became diseases of the ‘higher’ reasoning that hampered (or negatively *affected*) ‘disembodied’ rationality.

Any attempt to confront the nature or character of embodied human agency must thus come to terms with human emotion and affect and the relation of the body to ‘the mind’. The problem has been that no one has had a very clear idea of what emotions actually are. Neuroscientific and psychobiological accounts of emotion (e.g., Damasio 2000, 2003, 2005) have tended to posit a handful of basic, ‘universal’ emotions, such as happiness, anger, sadness,

disgust, etc., and look for neurophysiological correlates for these reported or indicated states. Such work has been important in demonstrating the inseparability of affect/emotion from reason/decision-making in the human brain, but the assumption of basic emotions has been exactly that – an assumption – with little direct, unambiguous evidence. Studies of the language of emotion and cultural comparisons of emotion conceptualization (e.g., Harre & Parrott, 1996; Wierzbicka, 1999; Kövecses 2000; Levinson 2003) have consistently shown far more variation in cultural categorization and expression of emotions than anything resembling consistent ‘universals’. As Kenneth Gergen explains,

We don’t have words like “love” “anger,” “joy,” “pain,” because there are events in the world that must be named if we are to have a proper inventory of what exists. Rather, we have relationships from which we have come to create these as realities, and from which they derive their importance in our lives. (Gergen, 2009, p. 97)

Consequently, most psychobiological accounts draw a clear distinction between *affect*, as a generally valenced, largely (but not entirely) pre-conscious reaction related to basic approach and avoidance instincts or biological/behavioral mechanisms, such as fight-or-flight, and *emotion*, as culturally codified expressions overlaying affect and channeling it into socially accepted forms that Wetherell (2012) discusses as “affective-discursive practices.”

Wetherell provides a rich and valuable critique of recent emotion and affect theory and research, which she divides into two general approaches: the conventional psychobiological study of “emotions,” and “a ‘wilder’ more encompassing concept highlighting difference, process and force in more general terms” (2012, p. 2). While not particularly happy with the conventional account of emotion, especially Damasio’s “basic emotions,” Wetherell is even less thrilled by the co-optation of the term ‘affect’ by theorists such as Massumi (1996, 2002), Thrift (2004, 2008), and Clough (2007), typically with little historical understanding of how the term is

currently or has been historically used in the psychobiological sciences. Wetherell writes, “The vagueness and confusion of Massumi’s account of affect, its lack of specificity and psychological naivety, risks, I think, undermining rather than sustaining critical political thought and action” (2012, p. 126). The specifics of her critique are worth quoting at length:

Massumi and Thrift take the wrong message from psychology and neuroscience. The rhetoric only works because Massumi elides a set of philosophical claims about the virtual and becoming with more prosaic claims for psychology and neuroscience which in fact understand affect in a very different way [...] Affect in cultural studies is in danger of being based on a (mis) take or mis-appropriation [...] Massumi and his colleagues make three claims:

- Affect is non-conscious.
- The chronological sequence moves from body responses and then, second and later, to consciousness and cognition in a 'reflex back' to consciousness (e.g. Clough, 2007, p2). Body/brain responses precede consciousness (cognition and awareness) and thus can be neatly separated from them.
- Body/brain responses are thus beyond representation and cultural sense-making and are hence autonomous.

Everything else is more or less premised on this. But [...] most contemporary psychobiology takes a very different line. Current psychobiologists and neuroscientists maintain instead that:

- Affect has conscious and non-conscious, bodily and cognitive, elements linked in highly complex ways.
- Body/brain activity and a very simple initial form of affect may precede conscious awareness and cognition as a rapid physiological response to an external stimulus (LeDoux, 1996) but this is highly specific and limited.

Typically, affective responses are triggered by conscious cognitions (e.g. memories and perceptions) and non-conscious subjective appraisals. Usually, cognition and brain/body activity are seamlessly intertwined.

- Even the more automatic and non-conscious elements of affect involve representations of incoming information and are responses to its meaning and significance for the organism.

The picture that psychology and neuroscience typically now paints of affect is of a highly dynamic, interacting *composite* or *assemblage* of autonomic bodily responses (e.g. sweating, trembling, blushing), other body actions (approaching or avoiding), subjective feelings and other *qualia*, cognitive processing (e.g. perception, attention, memory, decision-making), the firing and projecting of neural circuits (e.g. from the thalamus to the cortex and the amygdala), verbal reports (from exclamations to narratives) and communicative signals such as facial expressions. [...] Brain/body responses are autonomous only in the most limited senses and for all intents and purposes cannot be meaningfully separated from the rest of the assemblage that includes cultural, cognitive and conscious elements. (Wetherell, 2012, p. 61-62)

In other words, more empirically justified accounts of emotion and affect find little cause to separate affective processes from conscious, representational, and discursive processes. Affect may, at base, originate in pre-conscious reactions that are then shaped by cultural norms, but those cultural norms also shape the ‘instinctive’ affective reactions available and normalized in a given culture. Very few ‘instinctive’ affective reactions (beyond, for example, the mimicry seen in infants, see e.g. Langfur, 2013, which is thought to be mediated by some kind of mirror neuron system) seem to be biologically inherent; one may (possibly) be an evolutionarily adaptation that serves as a fear/flight trigger in response to movement resembling that of a snake (see, e.g., Öhman, 2009). But that's about it. Clough, Massumi, Thrift, and others, Wetherell argues, “have been radically unhelpful in their assertions about the functioning of affect, and in

their disdain for previous work” (ibid, p. 4). One important reason this judgment is called down is the insistence on the separation of supposedly ‘pre-conscious’ affect from ‘conscious’ discourse, which removes affect from social practice, which, despite the claims to ‘embodiment’, simply serves to reinforce the Cartesian split of ‘disembodied’ reason (viz., masculine rationality) and ‘embodied’ (and feminine) affect/emotion. Wetherell argues cogently that affective practices are “*normatively organised* as part of socially recognised routines” (ibid, p. 81) and, therefore, that “affective-discursive practice is joint inter-subjective activity” (ibid, p. 83). Affect and emotion are forms of cognition and forms of intersubjective reasoning. In this regard, Wetherell’s “affective-discursive practices,” are completely consistent with the phatic routines discussed by Laver (1975, 1981) and studies of embodied multimodal interaction, as well as with Goffman’s canonical notions of face, footing, and line, derived from Garfinkel’s notion of interactional orders.

When Wetherell argues that scholars such as Massumi and Thrift have been “radically unhelpful,” what she means, of course, is that they have been radically unhelpful to the study of *human* psychology, emotion and affect. It should be kept in mind, however, that part of the objective of these theorists and others is to bring attention, specifically, to *nonhuman*, *transhuman*, or *metahuman* forms of agency, including Deleuze and Guattari’s “assemblages,” Latour’s “actants,” Pickering’s “disciplinary agencies,” and Cooren’s “collective discursive agencies.” We can certainly argue about the use, positioning, or function of the term ‘affect’ in such endeavors, but we should not overlook or ignore the importance of that objective in the investigation of the social world. The human world comprises far more than human beings and their ‘affects’ and intentions. It is now a commonplace, for example, that each of us, as ‘individual’ human beings, carries around with us far more cells of bacteria than we have of ‘our

own' cells—and without those bacteria, we could not live, as intentional agents or otherwise.

Humans have always been symbiotes, always deeply part of our environments (as if it could be any other way). As Bennett reminds us:

Not only is human agency always already distributed in tools, microbes, minerals, and sounds, it only emerges as agentic *by way of* a distribution into the 'foreign' materialities its bearers are eager to exclude [...] There was never a time when human agency was anything other than an interfolding network of humanity and nonhumanity. (Bennett, 2005, p. 463)

It is in this sense that agency, as the power to act, comes directly into contact with affect, in the active sense of that term, as the power to affect and be affected by the worlds in which we live. Understanding action and agency, therefore, comes to involve more than conventional, prototypically human, intentionality. One response to such concerns has been a greater focus on the non-human. Bennett's (2005, 2010) "vital materialism," which has been collected with other "new materialisms" (see Coole & Frost, 2010), is an explicit hyperbole designed to draw attention to the agency, effects, and affects of or evoked by the non-human in the human world. Where Wetherell admits, for obvious reasons, that she is "not really interested in non-human affect" (2012, p. 4), Bennett pointedly seeks to

emphasize, even overemphasize, the agentic contributions of nonhuman forces (operating in nature, in the human body, and in human artifacts) in an attempt to counter the narcissistic reflex of human language and thought. We need to cultivate a bit of anthropomorphism—the idea that human agency has some echoes in nonhuman nature—to counter the narcissism of humans in charge of the world. (Bennett, 2010, p. xvi)

Bennett's work, like that of Cooren, seeks specifically to disrupt or at least question the material/immaterial binary at the heart of the Cartesian assumptions of conventional agency and intentionality. Bennett does this by imputing a weak form of "vitality" to matter itself, in full

awareness of the potential problems with that position. In her project this is a moral and ethical point designed to focus attention on the, particularly, environmental effects of human technology, which has come not just to affect the environment but has become an ecology of its own. Cooren, on the other hand, explicitly recognizes the entanglement of the material and immaterial – that neither can exist without the other – and posits a collapse in the term *im/material* which allows him to discuss “immaterial” phenomena like collective discursive agents/agencies in terms of “embodiment” (given the particular definition of “body” noted above). These are important attempts to address both the obvious differences among human beings as individual, embodied, conscious and rational actors, and our technologies (‘smart’ or otherwise) that have obvious and unarguable effects and affects – and therefore agency – in our worlds, as well as the collectivities of people and things, physical/material and digital/discursive/‘immaterial’ that likewise have even greater power to channel the actions of both things and people towards specific goals or outcomes or into specific, entrenched, social patterns. The problem seems to be that each of these theorists does so by focusing on and emphasizing one specific level of this continuum of agency to the detriment of the others: Wetherell on human beings, Bennett on things/objects or collectivities of things/objects, and Cooren on ideological collectivities more broadly. The latter two certainly don’t ignore human agency, but they each, in different ways, end up privileging human agency in a manner consistent with the quote from Coole that began this section.

This conjoining of the human and nonhuman as equivalent sources of action in and upon the world involves questioning conventional assumptions about human intentionality, and theoretically separating the thing which acts, i.e., the *actant* in the terminology of actor-network theory, from *agency* as the capacity to act in and upon the world and the things in it. Agency is a

force and vector of action—agency is a form of power. New materialist scholars often emphasize the possibilities and capabilities, the emergent affects and effects, of primarily nonhuman actants, and this is in fact a perfectly conventional implication of the term ‘agency’. Kenneth Burke, for example, names “agency” as one of his grammatical categories of action; the term “agency” for Burke indicates an instrumentality (a thing acting for another, as a human ‘agent’, e.g. a ‘real estate agent’ or a ‘secret agent’, is one who acts ‘in the name of’ another or others).¹³⁶ I believe it is possible focus on what continues to distinguish human agency from other forms of agency while rejecting conventional idealistic and dualistic notions of intentionality or other ‘immaterial’ ontological grounds (only nothing is ‘immaterial’). One means of doing so begins with the concept of *assemblage* as the theorization of the effective and affective forces through which action is enacted in interaction.

4.2.2 Assemblage Theory

Deleuze and Guattari’s (1987) original formulation posits *assemblage* as a process, more verb than noun. Assemblages, as binding processes, are thereby formulated as subjectivizing wholes whose properties emerge from interactions with other assemblages, as well as from interactions among their components, which are bound together by shared desire (see also

¹³⁶ However, “agency” for Burke (1969a) refers specifically to a material instrumentality rather than to human ‘agents’. Burke’s “pentad,” the relational elements of his “grammar of motives” (really, a grammar of action—i.e., the interpretation of action), comprises act, agent, scene, agency, purpose, and (later) attitude (the latter making it a “hexad,” the components of which together reformulate the Scholastic categories of what, who, where, with what, why, and how). Agency, in this account, is an instrument (or instrumentalization) by or through which an act is accomplished. Burke is reluctant to demote human agents (i.e., actors) to instruments, however, preferring, when necessary, to speak in terms of ‘co-agents’, ‘counter-agents’, etc.

Guattari, 2016). A person is one form of assemblage, but so is an ideology (which is a necessarily material formation). The political subject, for example, is understood as one of many potential collective assemblages of ‘enunciation of desire’ (recalling Bennett’s insistence on the inescapable symbiosis of human and nonhuman). Resonating with Jean Baudrillard, Kenneth Burke, Michel Foucault, and many others, Deleuze and Guattari understand subjectification as a largely symbolic or discursive ‘organization of power that is already fully functioning in [for example] the economy’ (1987, p. 30)—as in the consumerist generation and manipulation of individual desires. In this way, assemblages are described as ‘passional compositions of desire’. An assemblage cannot exist without the desires that constitute it as much as it constitutes them. Passions, on the other hand, are distinguished as effectuations of desire that differ with each assemblage, and different assemblages will mobilize passions of different orders. Thus the assemblage “is the passional regime of feeling and its resistances, a direction (*sens*, also ‘meaning’) to form and its developments, an economy of force and its displacements, an entire gravity” (p. 399-400). Assemblages, then, are bound together by affects (‘desires’) that motivate actions and intentions (‘passions’), both ‘individual’ and collective, by which they are constituted.

As might be expected, this emphasis on desire (and therefore ‘affect’, and therefore ‘agency’ as the power to affect and be affected) at the heart of assemblage theory has been criticized for precisely the privileging of the human, which posthuman and new materialist theorists have attempted to transcend.¹³⁷ Mark Hansen, for example, argues that Deleuze and

¹³⁷ We can speak of objects as having ‘desires’, but these are explicit metaphors based on human models, much like Bennett’s “vital materialism” but often without her self-conscious acknowledgment of rhetorical hyperbole.

Guattari's *assemblage* discounts "technical autonomy in all forms," subordinating nonhuman (or not solely human) technological agency to a "mathematically and technically embodied semiotics of the social" (2000, p. 286). By contrast, Hansen argues for the explicit attribution of agentic power to the processes and interactions in which assemblages come to be. Fortunately, the forces of desire that embody, bind, assemble, and 'become' the *assemblage*, while also providing its vector of action, provide a theoretical workaround that Hansen recognizes as capable of bypassing the conventional model of human intentionality, based as it is upon individual phenomenological perception and representation: "[B]y forging rhythmic connections between those assemblages of singularities we call human beings and the material real, becomings hold out the promise for a robust account of technology's experiential impact" (p. 187).

Manuel DeLanda (2006, 2011) has elaborated and extended assemblage theory, while adding certain qualifications that accommodate the nonhuman and technological. First, he argues, the identity of an assemblage as an actor is not only embodied in the interaction of its material components, but also expressed by the material configuration of those components. An assemblage thus reflects an individual singularity as the product of a historical and inescapably material process:

the process that brought its components together for the first time as well as the process that maintains that the identity of an assemblage is always contingent and it is not guaranteed by the existence of a necessary set of properties constituting an unchanging essence. (DeLanda, 2011, p.185)

Secondly, DeLanda argues that an ontological commitment must be built into the definition of the term 'assemblage' because these emergent wholes are defined, not only by their properties, but also by their tendencies (to act) and capacities (for action). 'Tendencies' are said

to make the properties of a whole vary, sometimes even changing its identity, while ‘capacities’ are potentialities in which wholes may exhibit previously hidden aspects of their identities. The term DeLanda adopts to encompass the tendencies and capacities of an assemblage is a ‘space of possibilities’, which, derived from the ‘phase space’ of mathematics, physics, chemistry, and systems, chaos, and complexity theories, explains how tendencies and capacities can be ‘real’ even when they are not actual: the tendencies and capacities of an assemblage comprise a virtual space of possibilities.¹³⁸

An assemblage’s tendencies and capacities define its dynamic space of possibilities and provide it with an identity bound to its possibilities of action. An assemblage’s space of possibilities is a set of potentials understood as a measure of degrees of freedom provided to it by the capacities of its internal and external relations. These degrees of freedom, however, have their dialectical counterpart in the constraints upon the assemblage’s ability to act, defined by the topological borders of that space of possibilities, to which the identity of the assemblage is bound. For this reason DeLanda speaks of the “quasi-causal constraints that structure a space of possibilities” (2006, p. 31). This sort of ‘enabling constraint’ evokes the language of Gibsonian affordances as much as the ‘structuring structures’ of sociopolitical theory. But again, the language of affordances is a language of instrumentalities; however, the assemblage (particularly the technosocial assemblage) is defined by its virtual (i.e., potential or probabilistic) and actual capacities for action—its powers to affect and be affected, its functional and pragmatic agency(s).

¹³⁸ A space that in could, in Cooren’s terms, be understood as a ‘body’—though I will not do so here.

This idea of freedom within defining constraints also resonates with both Chapter 2's discussion of the negative 'affordances' of mediational means and complexity theorist Edgar Morin's (1992 [1977]) discussion of the restrictions that complex adaptive systems place on their elements as emergent properties of the systems themselves. Hence, according Cudworth and Hobden,

systems, as well as being more than the sum of the parts, are also "less" in the sense that they remove some of the freedom of action of the component parts in the way of constraints. (2013, p. 435)

If we can understand assemblages as complex adaptive systems (and *vice versa*) in which the emergent properties of the system define and enable the potential actions of the system within the constraints inherent in and on those properties, we can just begin to make out the topology of temporally dynamic possibility space – a space of potential action constrained by a set of agentic forces (i.e., agencies) understood by DeLanda as 'tendencies' and 'capacities'.

While new materialist perspectives, following actor-network theory, tend to emphasize nonhuman technological and material agents and agencies, making the affinity with complexity and systems theory relatively easy to understand, the Deleuzo-Guattarian tradition, in which assemblages are understood as complexes of desire, are more commonly related to discursive, ideological, and subjectivizing formations. DeLanda, for example, despite drawing from the probabilities of complexity theory, specifically understands his assemblage theory as an 'account of the emergence of subjectivity' (2006, p. 33). In this sense, assemblages are also discursive assemblages of ideas, or what Kenneth Burke (1969b) called 'terminologies' that enact affective and rhetorical identifications —and are therefore epideictic ideological formations as described in Chapter 2. According to Burke, a terminology is a set of dynamic, subjectivizing and identifying, conceptual relations restricted by a set of internally defined constraints and

tendencies, which he describes as an *entelechy*, reflecting the temporal development of its internal and external relations toward a set of probable (or desired or assumed or expected) ends or goals. Burke's entelechy, however, has less affinity with a determining Aristotelian *telos* (and thereby with any simple, 'final' causation) than with the probabilistic topological attractors that DeLanda adapts from mathematics of chaos and complexity theory. Just as a space of possibilities is a material historical formation, it has a set of entelechial tendencies that mutually constitute the emergent capacities of its dynamic internal systemic and external identifying relations—an *entelechy* is a dynamic space of *possibility* not a determining end.

While assemblage theory(s) helps us to better understand spaces of (inter)action as defined by agentic processes (i.e. the possibilities of action for actors within encompassing spaces of relations), the concept of action itself remains vague. Kenneth Burke's Aristotelian distinction between action and motion is as good a place to begin as any. For Burke, where an 'action' requires a conventionally intentional agent, 'motion' is the natural play of purely material (or, for Burke, nonconscious, animalistic) forces: the wind does not 'act' and a "dog can bark but he can't bark a tract on barking" (2003, p.141), meaning that the dog's instinctive 'action', because it is non-symbolic (i.e., non-arbitrary, non-syntactical) is not classically intentional, not rational, and therefore has more in common with the 'motion' of the winds than with deliberate human 'action'. If we wish to critique the assumption of the 'rational individual' and move beyond the limitations of the traditional concept of intentionality upon which it is based, Burke's distinction will not serve. In contrast, we can draw a distinction between intention and motivation that allows a consideration of nonhuman agents and agencies, the relation between the human and nonhuman, and perhaps a further refinement of assemblage theory.

4.2.3 Intention & Motivation

In most theoretical discussion of social action and intentionality, motivations are understood as a conflation of long-term goals and affective, psychological, and sometimes ideological forces that drive individual decision-making and action. As DeLanda (2006, p.22), relying on Max Weber, explains, “while reasons may be exemplified by traditional values or personal emotions, motives are a special kind of reason involving explicit choices and goals.” Conventional intentionality is defined by the capacity to rationally formulate goals (i.e., intentions), a capacity that is often interfered with (i.e., affected) by ‘irrational’, affective forces. Weber’s discussion of motives in *Economy and Society* seems to provide an important theoretical foundation for this position in which the goal-formation of rational intentionality is driven, or motivated, by the (attributed) subjective meaning of experiences and actions. Hence,

we understand in terms of *motive* the meaning an actor attaches to the proposition twice two equals four, when he states it or writes it down, in that we understand what makes him do this at precisely this moment and in these circumstances. Understanding [of the act] in this sense is attained if we know that he is engaged in balancing a ledger or in making a scientific demonstration, or is engaged in some other task of which this particular act would be an appropriate part. This is rational understanding of motivation, which consists in placing the act in an intelligible and more inclusive context of meaning. (Weber, 1978, p. 8)

Kenneth Burke seems to have drawn upon Weber’s notion of motive in his *A Grammar of Motives* (1969a [1945]) and *A Rhetoric of Motives* (1969b [1950]). But for Burke motives are not only or simply inherent in the empirically observed intentional actor. More broadly, motives are systemic functions driving entelechial tendencies ideologically and discursively attributable within a set of historical and material relations that we can understand as analogous to DeLanda’s space of possibilities. For Burke, as for Weber, motives are the attributions of an

observer. But where for Weber that attribution is made by a sociologist of an observed subject as an interpretation of reasoning and justification of individual action (i.e., the attribution of ‘meaning’ in relation to the discerned ‘context’), for Burke the observer herself is necessarily imbricated in a web of motives as, for example, the disciplinary motivations and strictures that function as boundaries to the sociologist’s own possibilities of interpretation (as enabling constraints—terministic screens). Motivations, for Burke, therefore derive less from individual intention or even ‘needs’ and ‘desires’ than from discursive ideological (i.e., rhetorical) formations that are inherently social, affective, and material in the broadest sense. To quote Shotter,

Motives, intentions, sentiments are not inner things represented in outer behaviour, but are in the mediatory activity (joint action) going on between individuals [...] As such, one might say, motives, etc. exist less ‘in’ us than in the institutions between us. (Shotter, 1983, p. 39)

Drawing on Burke’s concept of motive as social influence (introduced in terms of identification in Chapter 2), we can distinguish between motivation and intentionality. Where *motivation* is inherently rhetorical and affective, an inevitably embodied, emotional force or capacity grounded in symbolic social identifications as cultural ‘structuring structures’, *intentionality* is a programmatic, even algorithmic, goal-oriented force or tendency characterizing any actor or agent, human or otherwise, pursuing a set of outcomes and having an influence on other actors and agents in its world. If intentionality is an entelechial pull toward a goal or set/range of goals to be effected, motivation is an affective push, which may or may not be specifically or directly related to reasoned or intended outcomes beyond the immediate re/action. Motivation can be an impetus to action apart from consciously reasoned and understood goals, while intentionality is defined in relation to a set of goals that may be innate

and/or programmed apart from any affective identification with or within a social system.¹³⁹

This distinction between affective motivation and goal-oriented or entelechial intention effectively removes the conventional notion of consciousness from intentionality, restricting self-consciousness to motivated actors as an effect of affective social identification.¹⁴⁰ From this perspective, a virus (whether biological or technological) has intent but no motivation (of its own), whereas an affective, emotional being (human or otherwise) is understood as motivated to the extent that it is relationally (i.e., socially) self-conscious within a socially constituted space of interaction. An artificial intelligence system (e.g., Google Maps) that compiles, computes, and delivers directions based upon real-time GPS-linked traffic data (thereby affecting, i.e., having a material effect on a ‘receiver’—human or otherwise) can be considered an intentional actor and agent, while a human driver trying to reach a destination is a motivated actor whose conscious actions are grounded in sociopolitical identifications *as well as* goals inherent to the social collectives with which she identifies or is identified from a Burkean perspective.

The affective, social, and symbolic identification that is central to Burke’s rhetorical theory can be taken as analogous to the central place of ‘desire’ and ‘passion’ for Deleuze and Guattari as forces binding assemblages together. Recall the description of assemblages as ‘passional compositions of desire’: desires constitute the assemblage as much as it constitutes them, while passions are effectuations of desire. Thus, the assemblage “is the passional regime of

¹³⁹ On this account Burke’s barking dog is understood to be intentional in the sense of acting with purpose, e.g., defense of territory, as well as motivated if that territorial behavior includes a family or a pack for whose (affective as well as effective) benefit the barking also serves a (indicative and pragmatic) purpose.

¹⁴⁰ In a bit McLuhanesque mixing or subtle punning, ‘affective’ here indicates *both* the emotional sense and the active sense of the ability of actors to affect their surroundings.

feeling and its resistances” (Deleuze and Guattari, 1987, p. 399-400). From the current perspective, however, this represents a confusion based on a conventional notion of intentionality. When intention is distinguished from motivation, *desire* is understood as intention (an entelechial pull, e.g. of probabilistic and emergent ‘strange attractors’) and *passion* as motivation (a socially generated affective push). In this sense, then, *desires* (as intentional forces) are effectuations of *passions* (as motivational forces). In other words, socially generated, affective (and affecting) motivations generate and instantiate intentions. This theoretical reversal of Deleuze and Guattari’s desire and passion, as applied to the technosocial, would seem to directly address Hansen’s limited critique of assemblage theory as discounting technological agency. As a corrective, intentional forces can be understood as a form of ‘machinic desire’ categorically lacking the motivation of ‘passion’ except as it is mediated and instrumentalized by motivated actors within a common assemblage (which can then also be understood as a space of relations defined and bound—as a space of possibilities—by intentional ‘tendencies’ and motivating ‘capacities’).

Thus, the distinction between motivation and intention points towards the examination of affective-discursive identifications as agencies that push motivated actors into virtual spaces of possibilities of action toward particular sets of goals. A technology, on the other hand, such as a mediological device (e.g. a mobile phone) or communication service (e.g. Twitter), can be understood as embodying a set of action potentials—DeLanda’s tendencies and capacities—that affect the world and other actors and agents in the world (what Deleuze and Guattari sometimes call *agencements*). Such ‘action potentials’ become ‘affordances’ when the theoretical focus is limited to the motivated actor making use of the technology as an instrumentality – a position DeLanda derides as ‘methodological individualism’. But this focus specifically reduces,

eliminates, or ignores the capacities of the technology itself to affect the world as an intentional actor in its own right. An argument about ‘technological determinism’ is relevant here only from such a perspective, which privileges the motivated human actor based on idealistic and dualistic assumptions of conventional intentionality.

Furthermore, assemblages of motivated and intentional actors can be understood as intentional (collective) actors in Cooren’s sense (e.g., organizations, corporations) without giving up the categorical difference of the self-conscious and self-determining, motivated (paradigmatically human) actor. The distinction can also be made without falling back to an idealistic or dualistic reified conception of human consciousness and identity. The single actor, like the single act, is an abstraction that can be fully accounted for, i.e., rationalized by motivated human understanding, only within an encompassing space of relation and interaction. The generation of, the carving out of ‘context’—as with the perception and conception of any object or whole, the setting of any boundary—is itself a motivated, hermeneutical, and rhetorical act. However, the effective reach (the agency) of the motivated actor to perceive and define such boundaries is, more than ever before, extended by the instrumentalities, meditational means, and intentional agencies that partly define it as an actor for the very reason that individual cognition is itself a necessarily sociotechnological phenomenon.

Thus, by understanding DeLanda’s space of possibilities as a generator or virtual embodiment of Burkean motives, we can conceptualize individual identity as a dynamic nexus of situated material practices for a broader understanding of what constitutes an actor or agent (or ‘actant’). According to DeLanda, for example,

assemblage theory departs from methodological individualism in that it conceives of this emergent subjectivity as an assemblage that may become complexified as persons become parts of larger assemblages: in conversations (and other social encounters) they

project an image or persona; in networks they play informal roles; and in organizations they acquire formal roles; and they may become identified with these roles and personas making them part of their identity. In other words, as larger assemblages emerge from the interactions of their component parts, the identity of the parts may acquire new layers as the emergent whole reacts back and affects them. (DeLanda, 2006, p. 33)

Human technology, made possible by social cognition, has always been a generative constraint on human subjectivity. Our networked digital tools, by expanding the possibilities of connection and interaction among both intentional and motivated actors, expand the range of influence of motivated agency in the generation, territorialization, and interaction of spaces of possibilities of action, while also strengthening the constraints of the affective social identifications of motivated actors with and within intentional assemblages.¹⁴¹ For example, both reactive conservative/fundamentalist and active-affective progressive causes, as ideological assemblages (see Karatzogianni & Robinson, 2010), are able to foster deeper commitments through more active and affective engagement while simultaneously broadening their reach by casting wider nets of interaction and through the ‘relentless co-presencing and distribution of the psyche’ (Rotman, 2008, p. 104) as effectuations of both positive and negative epideictic rhetoric. The latter point integrates the affective and motivating forces of social identification and assemblage with the previous discussion of not only epideictic rhetoric, but also with the underlying phatic character of interaction. These fundamental affective and emotional aspects of social relations, which are traditionally dismissed as ‘irrational’, are now brought to the fore as

¹⁴¹ Freadman (2002), for example, writes of the ‘jurisdiction’ presupposed by a speech act and the ‘uptake’ of different genres (as practices of communication) in a way that resonates with the account of motivating territories of meaning being developed herein. (Thanks to Nadya Pittendrigh for this connection.)

preeminent socially binding relational forces. But there is a further implication in this reorientation toward the affective. If identity is a social formation, these affective and emotional forces must be acknowledged in the (motivated) formation of identity and self. If identity is relation, we must also acknowledge that cognition is both relational and affective/emotional.

4.2.4 Embodied (Affective) and Distributed Cognition

Over the past few decades, psychologists and neuroscientists following Vygotsky and Piaget have demonstrated the intimate relationship between reason and affect/emotion (Damasio, 2000, 2003, 2005). Damasio and others (e. g., LeDoux, 1996) have clearly demonstrated that the parts of the brain specifically related to (both conscious and unconscious) emotional experience and behavior are also intimately involved in memory and decision making processes: ‘reason’, formerly assumed to operate ideally (i.e., most ‘efficiently’) without emotion, in fact, *cannot function properly* without emotion. Ramachandran & Blakeslee (1998) describe a patient with a damaged limbic system who could spend all day trying to decide whether or not to tie his shoes—this patient became a living example of Richard Weaver’s perfectly rational, unemotional (and therefore non-rhetorical) being incapable of making a decision because he lacked any affective or emotional motivation or basis by which to *evaluate* his experience. “Emotions,” writes Rosenfield (1988, p. 69), “are powerful organizers of thoughts and actions.” Science has here ‘discovered’ what the Sophists always knew. Others have investigated the connections between the expression and perception of emotion (e. g., Rimé, Corsini, & Herbette, 2002), often building on Ekman & Friesen's (1976, 1978) earlier work on facial expressions, as well as other research on mimicry and emotional contagion (see Planalp, 1999, for a focused examination of emotion in communication studies). In this way studies of emotion and

perception were connected to studies of empathy and theory of mind (e. g., Baron-Cohen, 1995). This work was further prodded by the discovery and subsequent investigations in the neurosciences of mirror neurons, which seem to show that the primate neuromotor system, potentially—but not conclusively—including that of humans, is ‘hard-wired’ to discretely and specifically respond to the actions of others in ways that reflect or ‘mirror’ actions taken by the self, which has been understood by some as a potential neurophysiological basis for empathy (e. g., Gallese, 2001; Gallese, Keysers, & Rizzolatti 2004). All of this has contributed to the development of an entire neuroscientific sub-field of social psychology known as social neuroscience (see Cacioppo & Berntson, 2005), which has demonstrated, among other things, that the perception and *interpretation* of language and communication are directly neurophysiologically intertwined with the *production* of speech and communication (e.g., Devlin & Ayedelott, 2006; Okada & Hickok, 2006; Meister, et. al., 2007; Iacobani, 2008; D’Ausillo, et. al., 2009), supporting earlier theoretical and behavioral work in nonverbal communication and cognition by McNeill (1992, 2005) and others. Communication is cognition, and both are socially and culturally constrained.

In recent years embodied cognition has gained further support in psychology on wide range of fronts. Regenbogen, et. al. (2012), to take a random example, have further investigated the multimodal (i.e., verbal and nonverbal) perception and interpretation of communication using brain imaging techniques. Neal and Chartrand (2011), examining the relationships among physical (communicative) capacities and perceptual and interpretive capabilities, demonstrated that an impaired capacity to *make* facial expressions negatively affects the ability to *interpret* facial expressions in others, whether the defect is a temporary experimental variable or the result of physical damage—in this specific case due to the cosmetic use of botox. Others have begun to

directly explore the relationship between culture and cognition (e. g., Markus & Kitayama, 2010; Kitayama & Uskal, 2011), while still others have begun to explore the relationships among culture, judgment, and decision-making processes (e. g., Weber & Morris, 2010). On the surface, questions of culture and decision-making might not seem to be directly related to embodied cognition, but when ‘culture’ (as assemblage) is understood to be necessarily embodied, i.e., when ‘reasoning’ is understood to be impossible outside of a social and historical context, the connection becomes obvious.

Much of the theoretical basis of embodied cognition can be traced back explicitly or implicitly to the work of Lev Vygotsky (1986; see Wertsch 1985, 1991, 1998). In psychological studies of child development in the early days of the Soviet Union, Vygotsky and his followers revealed the fundamentally social character of individual language use, thought, and behavior. In sharp disagreement with European psychology, which took the rational Cartesian agent as a basic assumption, Vygotsky emphasized the relationships between language (i.e., communication, social interaction) and the development of the self. Vygotsky is often contrasted with his French contemporary, Jean Piaget, for example, who tended to place more emphasis on the individual agent where Vygotsky emphasized the social environment and its constraints on individual development (though the two probably had more in common than they disagreed upon, see Tryphon & Vonèche, 1996).

Vygotsky’s work was an important influence on the work of literary theorist Mikhail Bakhtin (1986) and his associates, e.g. N. V. Vološinov (1973), who emphasized the inescapably social basis and character of all communication and, in fact, all cognition: human beings require interaction with other human beings, not only for their individual physical, psychological, and cognitive (including linguistic) development, from infancy to adulthood (‘infant’ being,

etymologically, ‘without language’), but also to provide the social structures of value and conceptualization (ideology) by which all phenomena, behavior, and interactions are given meaning. Even ‘inner speech’ (like all ‘rational’ thought) is socially shaped and constrained in the sense that it is necessarily based on knowledge, assumptions, and expectations (i.e., motivations) that arise from within specific social interactions and cultural orientations. From this perspective, ‘individualism’ as epitomized by the ideal of the rational Cartesian agent, is a (bourgeois) ideological construct as opposed to a universal human psychological basis (Vološinov, 1973). Bakhtin and Vološinov, again following Vygotsky, were also clear about the necessarily embodied character of cognition and communication (or ‘thought and language’), emphasizing the role of emotion in both processes through the idea that all communication is inherently expressive or has an expressive element in, for example, nonverbal paralinguistic forms of communication, such as physical gesture and tone of voice. Even when intonation is not present, as when reading silently, Bakhtin argues that we read intonation into the text based on our socially formed expectations: individual expression and perception happen within the constraints of (social and cultural) ideological formations. This position has had an important influence on many of the more recent studies and cultural comparisons of emotion and discursive emotional expression (cited above), which implicitly or explicitly evoke the positions resonant with embodied cognition, if only because emotion is typically taken to be the quintessentially embodied communicative phenomenon—the link between perception and conception, in polar opposition to ‘disembodied’ reason.

Bakhtin’s work came to prominence in the West in the 1970s just as the discipline of linguistics was seeing the development of a backlash against the conventions and strictures of Chomskyan generative grammar, which, relying heavily on analytical philosophy, took the ideal

Cartesian agent as a basic assumption. In contrast, cognitive linguistics and semantics took the explicit position that the ‘self’ was an embodied and sociocultural phenomenon, a position resonating very strongly with, and later incorporating, Vygotsky and, to some extent, Bakhtin (e.g., Lakoff & Johnson, 1980, 1999). This emphasis on the social basis of the self foregrounds the rhetorical character of language, communication, and reason, as emphasized not only by Bakhtin but a wide variety of modern rhetorical scholars (e. g., Toulmin, 1958; Burke, 1968, 1989, 2003; Perelman & Olbrechts-Tyteca, 1969). From the perspective of rhetorical theory (including Bakhtin and Vološinov), all human reasoning is inherently both motivated and constrained by sociocultural-ideological formations.

While linguists (or at least some linguists) were beginning to shake loose their Cartesian baggage, the field of artificial intelligence in computer science was similarly acknowledging the limits of the disembodied rational ideal of ‘the thinking thing thinking’ as a model of actual cognition (Minsky, 1985; Brooks, 1999, 2002; Breazeal, 2002). This was significant because conventional linguistics was closely related historically and philosophically to studies of artificial intelligence. The recognition by computer scientists in the field of artificial intelligence that a disembodied machine ‘intelligence’ without ‘knowledge of the world’ was never, in fact, going to be very smart or very practically useful represented the first glimmerings of ‘rational’ recognition of the fact that knowledge, as humans understand it, is more than information—knowledge is closely tied to language and embodied perception, and is inherently situated and inherently social. From this perspective, which in some ways constituted a return to the original perspective of cybernetics (Wiener, 1954, 1965), ‘intelligence’ and reasoning were understood as processes of ‘social information systems’ situated in specific motivated ‘contexts’ and responding to specific intentional goals. Hutchins’ (1995) seminal *Cognition in the Wild*, for

example, provides a cognitive anthropological perspective of the work of a US Navy ship's crew, emphasizing the symbiotic relations among the crew and the ship's machinery and control systems with and through which they acted, and in which the crew and the ship together formed a 'social information system', i.e. assemblage. Based on his observations, Hutchins argues that 'intelligence' is a collective phenomenon distributed among people and their technologies.

Drawing on Bateson (1979, 1988) and others, Hutchins made the explicit claim that,

The understanding of the individual that has developed without consideration of cultural process is fundamentally flawed. The early researchers in cognitive science placed a bet that the modularity of human cognition would be such that culture, context, and history could be safely ignored at the outset, and then integrated later. The bet did not pay off. These things are fundamental aspects of human cognition and cannot be comfortably integrated into a perspective that privileges abstract properties of isolated individual minds. (1995, p. 354)

In other words, culture "is a human cognitive process that takes place both inside and outside the minds of people [... C]ulture is a cognitive process [...] and cognition is a cultural process" (ibid; see also Franks, 2011). Subsequently, theories of situated and distributed cognition, which necessarily imply embodied cognition (and, I would argue, vice versa), have enabled the examination of the relationships among people and the technologies they use to think with (e. g., Clark 1998, 2000, 2010; Turkle, 2007, 2008a, 2008b; Bassolino, et. al., 2010).

It is in this sense that all reasoning is understood as necessarily motivated, a position which is also consistent with the perspective of motivated reasoning in political communication and political psychology (e. g., Kunda, 1990; Lodge & Taber, 2000). The 'cognitive unconscious' is built from both 'hard-wired' physiological and neurophysiological givens, but also from experientially and culturally entrained assumptions and expectations (e. g., Bargh & Chartrand, 1999), which are often built upon and reinforced by affective social identifications

(e.g., Westen, et. al., 2006) in a manner consistent with the discussion in Chapter 2. Knowledge and reasoning are always embodied and enculturated, which is to say that there is a direct relationship between perception and conception, that there is a relationship between emotion (affect, ‘intuition’) and judgment, and that culture, and therefore affective identifications, affect reasoning processes if only by providing a necessary set of predispositions and constraints on assumptions and expectations (whether those are discussed as, e.g., terminological screens, paradigms, frames, disciplines, discourses, rhetorics, or more pedestrian forms and effects such as (in)attentional blindness, confirmation biases, etc.): necessarily embodied affects and emotions are what provide the ‘values’ for our culturally entrained ‘evaluations’. This is a basic rhetorical principle. An acceptance of embodied cognition does not mean that there is no ‘logic’ or that learning or changes of mind cannot happen (see Redlawsk, et. al., 2010). It simply means that logic necessarily comes only in sociocultural forms—*logos* is dependent upon *pathos* for the constitutive enactment/performance of *ethos* that then, in turn, serves to justify that *logos*. There are different logics, much as there are different “sciences” in the sense of McClosky (1998)—and knowledge, judgment, and decision-making, like all actions, have ‘contexts’ and histories (which amounts to a re-statement of Floridi’s theory of information outlined above, itself effectively a formalization of neo-sophistic rhetorical theory).

Investigations of embodied cognition, along with situated cognition, distributed cognition, and social neuroscience, provide empirical support for the relational theoretical positions that motivate so much of the work in politically and culturally minded studies of human beings. As discussed in Chapter 1, just as more positivistically oriented scholars have difficulty accepting the constructed character of empirical structures (or the implications of that construction), some more qualitatively oriented scholars are uncomfortable with empirical

evidence when ‘science’ can be defined as ‘just another rhetorical position’. However, such fears are ultimately based on the lingering and giggling Cartesian ghost insisting that we have no access to reality ‘as it is’. This argument (at the hidden heart of much phenomenological investigation and others relying on conventional accounts of intentionality, see Stawarska, 2009) implies some form of homunculus ensconced in the mind’s Cartesian theater and ‘receiving’ ‘information’ from the ‘outside’. But inside and outside are illusions of perspective. The nerve endings in my finger tips, tapping away at this keyboard, are directly connected to—really outgrowths of—my brain. I am directly connected to—I have direct access to—the ‘reality’ of this keyboard and the room I’m sitting in. I am breathing it. I am a *part of it*. I may have a limited perceptual awareness, constrained by the physical parameters and spatiotemporal scale of my senses, both of which can sometimes be extended by technologies (with their own constraints and built-in assumptions), and by the cultural and experiential assumptions and expectations by which and within which I ‘make sense’ of my experience, but I am in the world and part of it, not separate from it, and not without ‘access’ to it. Embodied cognition (along with related areas of study such as distributed cognition, situated cognition, and enactivism) is an exploration of that being-in-world, as social science is an exploration of being-in-the-world with others.

Communication, as interaction, is the nexus of perception and conception, self and other, self and culture, the individual and the social. For this reason, the study of communication technology is perfectly situated to provide mutual support for the investigation of cognition—of how decisions are made and affectively evaluated, socially within and individually by, ‘social information systems’ or assemblages. The implication is that intersubjectivity is the necessary ground of individual subjectivity: rationality and ‘objectivity’ are rhetorical as individualism is an ideological orientation. Recent psychological theories of the social and relational character of the

individual ‘self’ provide further support for these claims and, ultimately, for a reorientation of the basic account of communication (as interaction), perhaps most importantly by addressing the one component of the previous sentence that has yet to be addressed even though it’s been with us since the first page of this dissertation: intersubjectivity.

4.2.5 The Social Self: Relational Being

Over the past few decades, psychologists Kenneth Gergen and John Shotter have been prominent among those to have developed sophisticated theoretical accounts of the embodied and social self that insist upon the relational character of human being and deny the individualistic assumptions of the contained, Cartesian self, a set of assumptions that Gergen (2009) refers to in terms of “bounded being.” “Rational thought, experience, memory, and creativity,” Gergen argues, “are not prior to relational life, but are born within relationships. They are not ‘in the mind’—separated from the world and from others—but embodied actions that are fashioned and sustained within relationship” (ibid, p. 95). Drawing from Wittgenstein, Vygotsky, Bakhtin, Vološinov, and others, Gergen and Shotter insist, in stark contrast to the assumption of a contained, rational self (i.e., Cartesian cogito), that “Independent persons do not come together to form a relationship; from relationships the very possibility of independent persons emerges” (ibid, p.38)—“We come into life through relationship. We exist in a state of inter-animation” (ibid, p. 34).

I have used the word ‘imbricated’ several times in this dissertation, but here, in the description of the social or relational self constituted in interaction, the word’s impressive

adequacy resolves.¹⁴² ‘Imbricate’ comes from the Latin for ‘rain shower’ (*imber*) and was originally used to describe over-lapping, semi-cylindrical roof tiles. One tile alone does little to nothing, and even many tiles together do not function properly or at all until ‘imbricated’ like the scales of a fish: the arrangement, the relation to other tiles (and to the roof, and to the rain), provides the individual tile with its function, with its being. This imbricated character of being is, in fact, characteristic of all being—a basic ontological reality. An ‘entity’ is a ‘confluence’, a relational formation, an assemblage. People are no different¹⁴³: “The individual represents the common intersection of myriad relationships” (ibid, p. 150). Gergen speaks of this (in contrast to ‘bounded being’) as ‘multi-being’. It is the idea that

In all that we say and do, we manifest conditions of relationship. In whatever we think, remember, create, and feel—in all that is meaningful to us—we participate in relationship. The word ‘I’ does not index an origin of action, but a relational achievement. (Gergen, 2009, p. 133)

Furthermore, we are each, necessarily, ‘achievements’ of a multitude of different, dynamic, evolving relationships:

From every relationship there emerges a residue or a resource in the form of potential actions (e.g. language, emotional expressions, scenario movements), any of which (alone or in combination), may be activated in the moment. The person is essentially constituted, then, by a multiplicity of relationships. Some relations leave residues that are well practiced, while others leave little but whispers of possibility. The well-practiced residues are immediately at hand, such as the way one speaks to casual friends. Often we call

¹⁴² As important as they are, we often don’t know exactly where our words come from or how we got them. In this case I do: I pilfered this one directly from Saskia Sassen.

¹⁴³ An interesting comparison can be made to Appadurai’s (2015) discussion of the ‘dividual’, but that will have to be made elsewhere.

these habits; they may also be viewed as skills. [...] People engaged in a rich range of relationships, such as the cosmopolite, may carry an enormous range of potentials¹⁴⁴; the sheltered or the villager may have fewer potentials. We are equipped, then, to enter any relationship with myriad potentials for being. (Gergen, 2009, p. 149-150)

Each person, each “I” is a nexus of relations, or overlapping and imbricated spaces of relations: “What we call thinking, experience, memory, and creativity are actions in relationship. Even in our private reveries, we are in relationship” (ibid, p. 63). The ‘first person’ or ‘individual self’ is an illusion of continuity that is largely “not a state of nature but of language” (ibid, p. 31):

the stable worlds in which we seem to live are quite fragile. In our daily relationships we encounter only partial persons, fragments that we mistakenly presume to be whole personalities. Stability and coherence are generated in co-active agreements. But these agreements are not binding, and disruptions can occur at any moment. I am not proposing that social life is grand charade, in which we are all wearing masks to suit the occasion.

¹⁴⁴ Vertovec’s (2007) notion of ‘super-diversity’ is relevant here, for what Blommaert & Backus identify as “Questions of what is shared and not in the field of cultural (including linguistic) knowledge [...] Superdiversity is a descriptive term, denoting the new dimensions of social, cultural and linguistic diversity emerging out of post-Cold War migration and mobility patterns. The new migrations characterizing the post-1991 order may in many parts of the globe, as well as the emergence of mobile global communication systems such as the internet, have led to extreme degrees of diversity to which the application of notions such as ‘diaspora’, ‘minority’, but also ‘community’ and other basic terms from the social-scientific register have become increasingly problematic. [...] Superdiversity] forces us to see the new social environments in which we live as characterized by an *extremely low degree of presupposability* in terms of identities, patterns of social and cultural behavior, social and cultural structure, norms and expectations. People can no longer be straightforwardly associated with particular (national, ethnic, sociocultural) groups and identities; their meaning-making practices can no longer be presumed to ‘belong’ to particular languages and cultures – the empirical field has become extremely complex, and descriptive adequacy has become a challenge for the social sciences as we know them.” (2013, p.13).

The metaphor of the mask is misleading, as it suggests there is a ‘real self’ just beneath the guise. For the relational being there is no inside versus outside; there is only embodied action with others. [...A]uthenticity is an achievement of the moment. (Gergen, 2009, p. 138)

“In effect, all meaningful action is co-action” (ibid, p. 39) because ‘meaning’ is a relational and social formation; ‘intelligibility’ is socially defined: “our actions have no meaning in and of themselves, only within an ongoing confluence of joint- or co-action can they begin to have a practical meaning” (Shotter, 2012, p. 139). What this means is that the self, as a relational, meaning-making actor, is constituted differently in different physical, social, and (therefore) psychological situations (i.e., different spaces of relations). “I” am a different person with, to, and for my students than I am with, to, and for my colleagues than I am with, to, and for my family than I am with, to, and for my (very patient) partner—because “I” refers to (signifies, indicates) a relational construct co-constituted in each of these situations; “I” am different in each of these situations because the space of relations that generates the available and negotiated options for identity is different. Each of these ‘subject positions’ is not simply a role I take on (not a ‘mask’ for an underlying ‘real’ me), it is a relational achievement, a co-constructed mutually responsive enactment shaping and shaped by a space of relations constituted by myself and my students or my colleagues or my family or my partner, as well as the assumptions and expectations we each have of each other (specifically of each other’s actions) in the particular situations, assumptions and expectations that derive from socio-cultural norms and individual and shared histories (which is why such entrained and in/enforced positioning, such ‘habits’¹⁴⁵, can be difficult to contest, counteract, or escape):

¹⁴⁵ i.e., of the habitus

In the extent that people come to embody different intralinguistic ways of relating themselves to their surroundings, in different ways, in different forms of life, they can be seen as (or better ‘talked of’ as) having, not just different ‘ideas’ in different circumstances, but as being different kinds of subjectively self-conscious persons, inhabiting different kinds of social worlds – that is, we do not just possess the different knowledges involved within ourselves, for such knowledge is not detached from our being, but is ‘determinative of what we are in process of becoming’. It is first an embodied, reactive or responsive form of practical knowing, or, of knowing in practice. (Shotter, 1997, p. 478; see also Shotter, 1993; Bernstein, 1972; Gadamer, 1975).

Even our ‘personal’ histories are relational achievements—spaces of relations that instantiate both constraints and opportunities (or capacities and tendencies). The idea of the stable, central self and identity seems natural because our ‘self-concept’ has accreted and been continually reinforced over time within (ongoing) interactions, creating stable patterns that, in being normative, seem to be ‘given’.

In this notion of co-active relational being, in which a re-membered past shapes possibilities for future action in present conditions, we can finally come to an understanding of the difference between information (as ‘data storage’) and (human) memory; computer ‘memory’ is a metaphor—and a deceptive one.¹⁴⁶ Human memory is not objective ‘information’

¹⁴⁶ Human memory itself, of course, is far from a singular, simple process (see Brockmeier, 2010, 2015). More refined comparisons (metaphorical analyses) might be made between, for example, computer RAM and human ‘working memory’ as processes of re-presentation, but that would take an already sprawling discussion into places that may not be of much use to the current argument. (Of course, computer scientists and philosophers of information, who carefully distinguish between computer ‘memory’ and data ‘storage’ as metaphors for very different informational processes, will likely take this generalization to be rhetorical sleight of hand.) This discussion must be left for another time.

to be ‘recalled’— memories are not recalled or retrieved. To re-member is, literally, to ‘re-body’, to put back together (‘member’ refers to a ‘limb’ or body-part, as a ‘membrane’ is literally a covering of a body).¹⁴⁷ But like Humpty Dumpty, the pieces never quite fit precisely ‘back’ together because each of those ‘pieces’, like the ‘body’ they comprise, are re-made in the act of re-collecting and re-membering, are constituted and defined by relations within a socially negotiated structure of meaning (i.e., space of relations): memory is not ‘objective’ recall, but intersubjective re-membering of previous re-memberings. One might counter that we do not recall actions, events, and phenomena themselves but *signs* of actions, events, and phenomena, and therefore, human memory *is* much like a computer’s data storage because memory involves the ‘re-membering’ (or reconfiguring) of ‘information’. What this elides is that the space of relations that gives a computer’s ‘data’ its meaning—the structure of that ‘information’—is fixed, finitely *encoded* (which is precisely why it can be directly transcoded across different systems and programs).¹⁴⁸ Memory, says Brockmeier (2010), “is structurally like perception, a generative event occurring in the present, rather than an image or scenario fixed and encoded in the past and somehow mysteriously retrieved in the present” (see e.g., Rosenfield, 1988; Edelman & Tononi, 1999; Schacter, 2001; Bontempi & Frankland, 2009). “Memory without the present cannot exist” (Rosenfield, 1988, p. 80). Human memory is thus far from fixed (as any study of eyewitnesses or psychotherapy can confirm) and its (re)constitution is subject to far

¹⁴⁷ An interesting, potentially contrastive, comparison might be made with Leyton’s (2006) *Shape as Memory*.

¹⁴⁸ This ‘recalls’ the ‘symbol grounding problem’ mentioned in Chapter 1. “There are no symbols in the brain; there are patterns of activity that acquire different meanings in different contexts” (Rosenfield, 1988, p. 136).

more than ‘interference’ or ‘noise’ in ‘recall’; the social relations that constitute memory (in contrast to ‘information’) are inevitably, inescapably dynamic: “Memory is a matter of present stability” (Goody, 1988, p. 85) in a continuous superflux.

Citing Bartlett’s (1932) classic study of memory, Gergen writes, memory is not so much a recording of sense data in the brain, as ‘an effort after meaning’. Echoing this view, scholars from history, psychology, and sociology currently explore the process of what is variously labeled ‘communal’, ‘collective’, or ‘social memory’. Much of this literature demonstrates the ways in which ‘what happened’ as [*sic*] a matter of social negotiation. (Gergen, 2009, p. 87)

Garfinkel, in “trying to resolve a dilemma – between information as a momentary product of experience and information as an a-temporal sum of things experienced” (Rawls, 2008, p. 69), argued similarly,

Instead of conceiving of the coincidence of meaning and the thing meant as a little package that gets tied together and filed away in the recesses of memory, “put on the drum,” to be drawn out again when the need arises, I would prefer [...] to regard information as something not recalled but re-created out of the resources of the available order of possibilities of experience, available sensory materials, actions, etc. Thus preferred usage would be to talk of a communicant as knowledgeable rather than talking of his knowledge. (Garfinkel, 2008, p. 158)

“Memories come to be embodied in the very structure of the present” (Shotter, 1984, p. 208).

Human memory is not the recall of static, objective, ‘information’, but an active, social, relational process of making-intelligible, a process defined and enacted in relation to a constituting interactional order (see Shotter, 1993, p. 127-129):

It is not simply that reports of memory are continuously created through co-action. There are also social conventions for what counts as a proper performance of memory, and when and where it is appropriate. [...] Regardless of what happened, it only becomes a

ratified memory if it conforms to the rules. And so it is with what we take to be the story of our lives, the history of our nation, or the evolution of the human species. (Gergen, 2009, p. 88)

“Thus it is memory,” argues Shotter, “not as the process of ‘retrieving’ something ‘stored’, but as the process by which past specificatory activities are linked to current specifiability – which makes for intentionality, and give a ‘directionality’ to mental activities” (Shotter, 1984, p. 208).

Memory is valenced¹⁴⁹, deictic, indicative, a fact Michel DeCerteau elegantly illustrates:

memory is a sort of anti-museum: it is not localizable. Fragments of it come out in legends. Objects and words also have hollow places in which a past sleeps, as in the everyday acts of walking, eating, going to bed, in which ancient revolutions slumber. A memory is only a Prince Charming who stays just long enough to awaken Sleeping Beauties of our wordless stories. “*Here*, there used to be a bakery.” “*That's* where old lady Dupuis used to live.” It is striking here that the places people live in are like the presences of diverse absences. What can be seen designates what is no longer there: “you *see*, here there used to be...” but it can no longer be seen. Demonstratives indicate the invisible identities of the visible: it is the very definition of place, in fact, that it is composed by these series of displacements and effects among the fragmented strata that form it and that it plays on these moving layers. (de Certeau, 2007 [1984], p. 257-258.)

In other words, “the prolongation of the past into the present (i.e., *memory*, but not as a process of storage) [...] gives a ‘line of intentionality’ into the future determining the *style* of what is to come” (Shotter, 1983, p. 32). The past (*logos*) is constituted in the present (*pathos*), which shapes the possibilities (*ethos*) both of the past and for the future: “memories are less about authenticating the past, than about generating possible courses of action in the present”

¹⁴⁹ The psychological definition of ‘valence’ is ‘the power to affect’, or specifically, ‘emotional force or significance’, which can be directly related to the chemical definition of ‘valency’ as ‘the power or capacity of certain elements to combine or displace’ other atoms.

(Landsberg, 1995, p. 183). The process of re-membling is thereby also, inescapably, both deictic and epideictic (see, e.g., Bostdorff, 2011): in orientational processes of “co-action people create stabilized worlds of the real, the rational, and the good” (Gergen, 2009, p. 90). In continuous, active, dynamic processes of re-membrance, people generate, indicate, and territorialize the spaces of relations by which ‘reality’ is made ‘real’: “All that we take to be real, true, valuable, or good finds its origin in coordinated action” (ibid, p. 31). It is in such epideictic processes that identity is generated (indexed in *pathos*), relationally defined (iconically and metonymically as *logos*), and maintained (symbolically as *ethos*). Thus, again, relationality is the basic ontological and epistemological principle:

[T]here is no action that can be isolated and [still be] identified for what it is. There are no acts of love, altruism, prejudice, or aggression as such. In order to be anything at all, they require a supplement, an action by at least one other person that ratifies their existence as something. Of course, you may supply the supplement yourself. [...] But this supplement is the child of past relationships in which someone was present to confirm your actions [...]. In ‘knowing what you are doing’ you are a stand-in for another” [...] only in coordinated action does meaning spring to life. (Gergen, 2009, p. 33)

Because of this inescapably imbricated, social, and relational character of all motivated human action, memory (as opposed to ‘data’) is always heavily affective, emotionally laden, and rhetorical: “Emotions are essential to the creation of memory because they organize it, establishing its relative importance” (Rosenfield, 1988, p. 72). The *kairos* of the present space (or, more accurately, place) of relations provides a basis of meaning as *pathos* (immediately affective and affecting relevance), which motivates as shared value (*ethos*) providing ‘information’ (*logos*) with both meaningfulness (as relevance) and value (as credibility).

For this reason, I teach my students that the two most important things in any practice of communication are *relevance* and *credibility*: no matter how good your ‘information’ is (and no

matter how good *you* think your ‘message’ is), if your ‘message’ is not taken to be relevant and/or you are not taken to be a credible source of that information, little in the way of effective communication (as defined by your intentions) will take place. Information (*logos*) without relevance (*pathos*) and credibility (*ethos*) is both useless and meaningless because valueless. Much of any communication practice, therefore, becomes the indication of relevance (and credibility) in the directing and managing of attention. Much of “our experience is largely dominated by the direction of our attention,” argues Gergen (2009, p. 84). It is in the directing of our own and others’ attention “through co-action that the realities of the world become significant” (ibid). Information is defined and made meaningful (i.e., credible) in relation to what Floridi defined as ‘context, level of abstraction, and purpose’ enacted in what Garfinkel called an ‘order of interaction’. The indication and implication of relevance—an effecting of affect in the immediate space of relations—combines and connects self-expression with indication for-another (or -others) in shared *pathos*.

Here we once again see the importance of the deictic, epideictic, and phatic aspects of communication as interaction. Prelli (2006, p. 2) explains that the Greek *deiktikos* meant to ‘exhibit’, ‘show forth’ or ‘make known’ and indicated the opposite of ‘conceal’. Aristotle delineated two forms of deixis, 1) the *apodeictic*, to show forth ‘from’ or ‘by’, “as in the demonstration of a well-ordered proof” (ibid), and 2) the *epideictic*, to show forth ‘on’ or ‘for’. The latter has been traditionally understood as “the disclosure of a person’s virtue through an eloquent ceremonial speech” (ibid). Chapter 2 provided an extensive discussion of the severe limitations of this understanding of *epideixis*, but given the immediately preceding discussion we can grasp even more firmly the fuller import and function of the deictic and epideictic as indicators of relevance both as self-expression and, more importantly, co-action, i.e., *for-another*.

The *epideictic*, as motivational force, indicates shared value as part of a much broader set of deictic phenomena. The deictic, more broadly, is *always* relational, indicating relevance in precisely the manner Sperber & Wilson (1986) define the pragmatic basis of relevance theory as ‘ostensive-inferential communication’, or ‘ostension’, as “behavior which makes manifest the intention to make something manifest” (p. 49). This process can be simplified a bit and understood as the directing of attention. In his discussion of the relationship between rhetoric and attention, Oakley (2011) makes an additive distinction between the ‘alerting’ and ‘orienting’ functions of rhetorical communication, which Sperber & Wilson might call ‘modes of ostension’, and which can be related to the present account of deixis:

Alerting refers to the process of maintaining a general readiness to process novel items, while *orienting* refers to the factors that dispose one to select [i.e., attend to] particular items over others.¹⁵⁰ Alerting operates along a quantitative gradient, while orienting operates along a qualitative gradient. (Oakley, 2011, p. 288)

Among other things, this distinction fits neatly into the methodological discussion in Chapters 1 and 2 of the relationship between analysis and synthesis, dialectic and rhetoric, etc. Alerting indicates the point and the line, it is analytic, deductive, apodeictic, dialectical, and centrifugal—the pull of intention; orienting is spatial, synthetic, inductive, epideictic, rhetorical, and centripetal—the push of motivation. Alerting names the defining, determining, dichotomizing, and boundary-setting function of deixis, the separating of this from that, us from them. Orienting names the embodying, gathering, and space-making epideictic function of identification. From within this terminological space we can better understand Hanks’ (2009, p. 21) description of deixis as the basic mode of articulation: deixis involves “the simultaneous

¹⁵⁰ The emergence of ‘selection’ here as an aspect of ‘orienting’ should also motivate the re(-)membrance of Burke’s terministic screens and their ‘selection’ of reality.

articulation of space, perception, discourse, commonsense and mutual knowledge, anticipation, and the framework of participation in which [speakers] and [addressees] orient to one another.”

In present terms, deixis is again understood as the underlying relation-indicating, space-making aspect of communication, a territorializing function that relates self to other—co-constituting self and other in that relation—in terms of the indication (or opposition) of shared values, shared knowledge (memory), and shared access to ‘information’ (situationally indexed and *kairotically* constituted). In rhetorical terms, deixis can be understood as the indication and articulation of shared motivations (Burke’s ‘alignment of motives’), and human communication can be accounted for as a process moving from motivation to intention through the directing of (shared) attention—the process of making shared meaning as the instantiation of mutually constitutive and mutually manifest (i.e., oriented) spaces of relations.

For this reason Shotter argues that we would often do better to speak of *interaction* as *intra-action*:

due to our spontaneously responsive relations to events occurring within our meetings with others, instead of one person first acting individually and independently of any other, and then a second person replying also individually and independently of the first, we act jointly, as a *collective-we* in an *intra-action*, within which we are all immersed. And we do this bodily, in a “living” way, spontaneously, without our having “to work out” cognitively how to respond to each other. (Shotter, 2013, p. 142)

More specifically,

as we move as a social group from acting within an indeterminate, to a more determinate state of affairs, the “parts” or “aspects” into which we all—as the group we are—differentiate such a global whole, are all *internally* related to each other. They cannot exist as separate, only externally related “things,” for it is only within their relations to the larger whole that they “play their part”; if separated from it, their role is lost. [...] “We are all in *this* together.” (Shotter, 2013, p. 153, fn 5; original italics)

The relation between action and subjectivity can be noted here. It is the ‘subject’ that ‘acts’ (as in, not incidentally, the ‘subject’ of the sentence). But given that all action is interaction, we can see (*pace* Vygotsky, Bakhtin, etc.) that all subjectivity is intersubjectivity—or, more correctly given the present ontological notion of spaces of relations, *intra*-subjectivity. On this account, then, the rhetorical interaction of subjects as processes of *influence* is part of a broader ‘intra-actional’, co-active process of *confluence* (Gergen, 2009, p. 49) driven by modes of perception and interaction in motivated spaces of relations (i.e., assemblages) instantiating dynamic (active) boundaries of generative constraint.

Gergen enumerates three inter-related and co-generative processes by which the ‘self’ is realized and enacted as a relational (inter-subjective, intra-actional) construct, which necessarily involve memory and deixis: 1) the modeling of (perceived, received, and re-membered) actions of others, 2) the incorporation of identities as relationally defined roles (i.e., defined by tendencies and capacities), and 3) the recognition of interactional patterns of co-, joint-, inter-, and intra-action.

As we engage in relationships, both significant and superficial, we are continuously absorbing potentials for action. Every relationship provides three points of origin for these potentials: First, others’ actions serve as *models* for what is possible. As we observe others in action, they fill our consciousness, thus providing the possibility of incorporating their actions into our own repertoire. This process, variously called imitation, modeling, mimesis, or identification, is often credited by social scientists as the fundamental engine of socialization. [...] Through observation we incorporate the potentials of being the other. [...] Yet... Within any relationship, we also *become somebody*. That is, we come to play a certain part or adopt a certain identity. [...] Each relationship will bring me into being as a certain sort of person, and the actions that I acquire will enter the repository of potentials for future use. In a certain sense, we are prepared for a future in which we imitate various versions of ourselves. There is still the

little boy or little girl there in waiting. But there is far more. It is not simply *the* little boy or girl but a multiplicity of them as they have come into being in our relationships with parents, friends, siblings, teachers, and so on. As the years accumulate, so do the laminations of possibility. [...] Multi-being is also constituted by a third residue of relationship. We draw from the *form of co-action* itself, the interactive scenarios that we perform within our various relationships. When we learn to dance, we acquire the ability to move our bodies in a prescribed way; we also watch our partners, and possibly could imitate them as well. Of equal importance, however, we learn the coordinated activity of the dance itself, how it goes when we move in this direction, or in that. In the same way, I learn what it is to participate in the give and take of an argument, in classroom discussion, scenarios of emotion [...] and so on. In sum, all meaning/full relations leave us with another's way of being, a self that we become through the relationship, and a choreography of co-action. From the three sources, we emerge with enormous possibilities for being. (Gergen, 2009, p. 135-137)

In this way, then,

when someone acts, their activity cannot be accounted as wholly their own—for a person's acts are inevitably 'shaped' *in part* by the acts of the others around them, and also *in part* by their reactions to their overall surroundings (both social and physical) [...] For [...] although they are "*our*" actions, there is no way in which their overall outcomes, the "resultants," can be traced back to a set of separate contributions by all the agencies concerned. Because what the individuals involved intended, and what results, are two quite different things, the "dialogical reality" or "dialogical space" constructed between them is, in fact, not only experienced by them as an "external reality," but also as a "third agency" (an "it") with its own (ethical) demands and requirements over and above those of any of its participants. (Shotter, 2013, p. 142)

This 'third agency' is the assemblage as a space of relations, a space of possibility defined by (intentional) tendencies and (motivating) capacities. And in this sense, 'agency' names "action within relationship" (Gergen, 2009, p. 82): "To name my intentions is to name the performance in which I am engaged" (ibid, p. 81). However, those intentions and performances

are shaped by socially and relationally generated motivations that generate possibilities for action and re-action based on values (*ethos*) in affective and affecting involvements (*pathos*). To influence, or shape, our own or another's actions or potentials for action, the constitutive space of relations must be shaped—or re-membered.

A significant reaction to this account of action and agency is to argue that it is 'deterministic' or, at least, that it diminishes or eliminates individual, voluntaristic, self-directed agency and responsibility of the kind defined by traditional intentionality. But Gergen points out that, "In large measure, the concepts of determinism and agency [in terms of conventional intentionality] draw their meaning from each other. One cannot champion determinism if there is nothing against which it can be contrasted," i.e., 'voluntarism' or willful, intentional agency (ibid, p. 52). In other words, "the concept of voluntary agency is similar to the mutually constitutive dialectic of the concept of cause-and-effect" in its support for the ideology of bounded being—no 'effects' without 'causes', nothing to define as 'causes' without 'effects'. For the proponent of 'bounded being' and Cartesian intentionality, "we are each, individually, the sole origins of our actions. We function as gods in miniature, the originators of our futures," with all the attending evils of (fetishized) agonism and competition (ibid, p. 53). However, if there are no 'bounded beings', if we are all imbricated in larger spaces of relations in which the 'individual' is constituted only as a dynamic nexus of relations, then the very notion of 'determinism' falls apart—there is nothing solid and separate to 'determine' as there is nothing that can be set apart from these relations as being 'determinative'.

The 'self' is not and cannot be separate from the constitutive space of relations, just as 'information' cannot be separated from the constitutive interactional order that defines it (makes it meaningful). Like 'food' and 'feeder', 'selves' (both for 'ourselves' and for others) are defined

by their actions (or potential actions) in relations; all action is intra-action. Gergen thus refines three primary constitutive processes or characteristics of ‘multi-being’: 1) co-action and constraint, 2) multiplicity and malleability, and 3) relational flow (in generative and degenerative aspects). Co-action, argues Gergen, “is first a process of mutual constraint. Inherent in the process of coordinating is an ordering” (2009, p. 40). Such constraint was discussed above as being defined, in DeLanda’s terms, by the constitutive assemblage’s defining space of possibilities (as tendencies and capacities), as Garfinkel’s interaction order, and as Floridi’s binding of information (if it is to be ‘information’ at all) within a particular context, level of abstraction, and purpose (or what we might call intention): co-action is “essential to the creation of any meaning at all” (p. 46). But if co-action is ‘essential’, constitutive, and inevitable (because it is *intra-action*), we must also recognize the complexity of possibilities of such co-action, which is not and cannot ever be a one-to-one linear relation (e.g. of discretely ‘linked’ ‘nodes’). Co-action, as intra-action, is inevitably a matter of multiplicity. While, on the one hand, “there is no intelligibility outside constraint” (ibid, p. 42), on the other, no particular constraining space of relations is necessarily (actually, can rarely if ever be) our only option. The function of memory as re-membling means that we each always have a multitude of spaces of possibility open to us. We are also constantly moving among different relational ‘contexts’ and are inherently sensitive to these shifting constitutive spaces of relations—as we must be to count ourselves and be counted as socially functional people:

As we move from the home, to the office, to a visit with friends, to the sports field, and so on we carry with us patterns of speaking and acting. These practices are now inserted into new contexts, and supplemented in new ways. The words and actions now acquire different functions. They become increasingly meaning/full. [...] Actions may constrain, but because they are ambiguous the constraints are soft. The range of intelligible supplements may be vast; the permutations and combinations in any co-active sequence

is without number. With each new combination lie the seeds for transforming tradition. Or, one might say, in the multiplication of constraints lies the possibility for infinite transformation. (Gergen, 2009, p. 42-44)

Co-action in multiple dynamic spaces of relation entails that “there is both continuous movement toward constraint, on the one hand, and an openness to the evolution of meaning on the other” (ibid, p. 46). In this constant relational flow, “we generate durable meaning together in our local conditions, but in doing so we continuously innovate in ways that are sensitive to the multiplicity of relationships in which we are engaged” (ibid). And these ways are what were identified in Chapter 2 as positive (identificational) and negative (divisive) epideictic processes, which Gergen names ‘generative’ and ‘degenerative’ relational processes. *Generative* relational processes “are *catalytic*; they inject relations with vitality” (p. 47); they are innovative, additive, collaborative, cooperative, but for that very reason can also be disruptive of expectations and normative patterns of action and possibility (as with the revolutionary potential of epideictic):

It is when life as usual is disrupted by humor, irony, thoughtful reflection, a compelling fantasy, and the like, that we avoid the slide into deadening repetition. Generative processes stimulate the expansion and flow of meaning. (Gergen, 2009, p. 47)

In contrast, *degenerative* relational processes “are corrosive; they bring co-action to an end” (p.47) or seek to do so; they are agonistic, antagonistic, and alienating processes of division and disidentification (like invective and other negative epideictic processes). While ‘degenerative’ relational processes may ‘bring co-action to an end’ in microinteractional processes (e.g., conversation), in their relation to negative epideictic they have a larger, normative, disciplining, and conservative function that can be necessary to the maintenance and coherence of interactional order: a space of relations without coherence cannot function (a basic lesson of ethnomethodology), but a space of relations that brooks no discrepancy in the ‘rules of

order’, that insists on the impenetrability of its borders and the purity of its internal processes, will stagnate.

There are vast implications for this relational and social ontology—besides pointing out the obvious and fatal contradictions inherent in ideological individualism or the ultimately self-defeating character of authoritarianism. These implications, however, are beyond the scope of the current argument. The present project is ostensibly concerned with digital media technologies and the investigation of such technologies and the social processes they mediate. Given how much of our daily interaction is—and, therefore, our selves are—now thoroughly technologically mediated, and given the relational ontology and epistemology argued for herein, the focus must return to the ‘place’ of mediation and media communications technologies as constitutive of enacted spaces of relations.

4.2.6 Mediation & Mediational Means: Agents, Agencies, & Spaces of Relations

It should be fairly obvious by this point that communications technologies, of any form, serve to build and maintain constitutive spaces of relations (in co-action, joint action, or intra-action). Scollon’s characterization of mediational means can help us to better understand the processes of mediation as interaction as space-making, but we must recognize two quite different forms of mediational means: 1) mediational *means* as embodiments or instrumentalizations of intentional tendencies, and 2) mediated *mean(ing)s* as motivating spaces of representational relations (as defined by the tendencies and capacities or possibility spaces embodied or instrumentalized by mediational means). One possible way to approach this problem of mediation might be to reiterate and adapt Foucault’s notion of ‘technologies of the self’ as mentioned in Chapter 1. However, it is implicit in the preceding argument for the ‘self’ as a

locus of (co-)action that such a ‘multi-being’ cannot be contained in such a way as to separate the mediational means (whether as instrument or *episteme*) from the co-constitutive ‘self’ said to instrumentalize those ‘means’. Doing so would lead to a position similar to that developed in Sherry Turkle’s recent work wherein the technology, instead of mediating interaction, comes to intercept intentional (psychological) action and disrupt (social) interaction—the (human) ‘actors’ on this account are ‘bounded beings’ with which discrete technologies and devices interfere, the two competing with one another, each struggling against instrumentalization by the other. This position is, to adapt Wetherell, ‘radically unhelpful’. But this view has nevertheless become a commonplace: the argument is that our communications and media technologies, despite their characterization as ‘social media’, are making us *less* social, more self-centered, and less emotionally bound to one another by separating us from ‘real’ life and from each other; we pay more attention to our screens than to the world around us, and can’t seem to look away long enough to so much as watch where we’re going (even when driving) or to have ‘actual’ conversations with people physically co-present.

I have some problems with this characterization of the situation, which seems to me to be deeply rooted in ‘bounded being’. We may be missing the point if, for example, we accuse a child or teenager of being ‘anti-social’ because she is not fully attending to those around her when she is, in fact, engaging in multiple conversations across various (potentially imbricated) technological spaces with (potentially) more people than would fit in the room she is physically sitting in. (It would be much more accurate to call this *hyper*-social.) The problem here (much like with the students who cannot resist the allure of Facebook and Instagram during lectures) is quite specifically with attention, and not with being *anti*-social (a relative ‘misapplication’ of the former does not *necessarily* imply or entail the latter). In the terminology developed thusfar, we

can say that the problem is with our inability to simultaneously attend to multiple constitutive spaces of relation and interaction, especially when those different spaces also have different temporal dynamics and demand different, dissonant rhythms of attention and interaction. It can now be taken as the general, uncontroversial consensus that all meaning is context-dependent, and that “virtually all uses of languages, are characterized by transpositions between, among other things, perspectives, deictic origos, participation frameworks, and activity types” (Haviland, 1996, p. 271). One conventional way to think about this is in terms of the subjective deictic origo (the subjective phenomenological ‘I’, conventionally as an “asocial and asituated self” [Stawarska, 2008, p. 412]) actively and constantly engaged in coordinating the singular ‘self’ (usually as ‘bounded being’) with the ‘external’ world and others in it. However, Stawarska (2008, 2009) points out that this conventional phenomenological perspective “ultimately fails to account for the actual mechanism of spatial orientation” which encompasses a “multi-referentiality” and a “polycentric orientation” within a dynamic perceptual *field*, even in immediate physical interaction. As Stawarska argues,

It is puzzling just how a spatially configured environment would be constituted by a viewpoint that is not itself subject to spatial configurations. This unsituated viewpoint of the absolute ‘here’ [the subjective deictic origo] may provide an appropriate *locum* for the transcendental irreversible I, but it does not capture the body-situated-in-the-shared-world. (Stawarska, 2008, p. 404)

In this regard, the multiple spaces made available by digitally networked communication technologies are not at all novel—we exist within a range of dynamic spaces of relations, physical, ideological, cultural, etc.—but interactional technologies do multiply the available spaces of representation and interaction and their constitutive ‘indexical valences’ (Ochs, 1996) exponentially. Where, in general, a “privileged status is usually accorded to a given ‘here and

now’ as the context of utterance against which the denotata of indexical elements within utterances are understood” (Haviland, 1996, p. 272), the ‘here and now’ is itself now regularly and quite commonly multiple—as when the student is studying with textbook and laptop, reading and writing notes, while intermittently messaging with friends, keeping an eye on her Facebook and Twitter notifications, and engaging a number SMS and Snapchat conversations on her phone, all with the television on ‘in the background’ that both she and her roommate sitting next to her are watching (and reacting to) together. We might complain that our hypothetical student is not doing any of these things particularly *well* (in the sense that she is not ‘fully’ attending to or engaged in any one of these spaces), but that is, frankly, beside the point—and likely to be both irredeemably biased by an assumption of how that ‘well’ is to be defined, as well as functionally and pragmatically inaccurate.

It is not that human beings are incapable of attending to multiple spaces—which would be a strange claim to make after the previous section on ‘multi-being’. It could be argued, in fact, that the very origins of consciousness are entwined with precisely this ability. Language, in particular, and semiosis, more broadly, can be understood as making possible the ability to be in or attend to more than one space of relations at a time: this is precisely what narrative does (as evidenced by several decades of study of and attention to narrative and cognition, e.g. Harré & van Langenhove, 1999; Werth, 1999; Brockmeier, 2001; Brockmeier & Carbaugh, 2001; Ryan, 2001; Gavins, 2007; Herman, 2007; as well as to, specifically, the relation of narrative to memory, e.g. Brockmeier, 2009). The ability to attend to the events of a ‘storyworld’ while, at the same time, attending to or at least recognizing one’s immediately situated relation to the ‘teller’ of that story (including an accounting for the ‘suspension of disbelief’ and ‘narrative transportation’), is what makes possible both everyday conversation and the reading you are

doing right now.¹⁵¹ However, the human mind has not evolved to attend to more than one story at a time (as opposed to nested stories or interweaving plot lines within a ‘single’ story, or when sequentially reading or watching different stories)—in other words, the human brain has difficulty accommodating itself to the active enactment of (or attentive participation in) more than two places (or spaces—as ‘orders of interaction’) at once, and we don’t really do even two that well. There seems to me an obvious relationship between ‘narrative transportation’ and our reduced ability to pay attention to our immediate physical surroundings when talking on the phone, for example. The old undergraduate communication seminar staple of ‘Where are we when we’re on the phone?’ (see Backhaus, 1997), relies on a conventional notion of Cartesian space as well as on Cartesian ‘selves’ occupying it. When ‘space’ is understood as any set of relations, the mystery of ‘where’ disappears because physical space and mediated space are both ‘real’ spaces, both spaces of relations, but they instantiate and constitute different (though potentially overlapping) sets of relations (i.e. and therefore, by definition, different spacetimes). I suggest that the problems of ‘anti-sociality’ or social pathology that arise with contemporary communications technologies result from the human brain’s inability to accommodate several different such spacetimes of relations at once. Each of those spaces enacts normative rules of interaction; which is to take precedent and how the different sets of interactional rules relate to one another is a very real interactional and intra-actional problem. The typical solution (or, often, normative expectation) involves privileging the immediate physical space of relations over all others, but this is not always possible let alone desirable. Take as a mundane example the woman

¹⁵¹ Gregory Bateson defined a ‘story’ as “a little complex or knot of that species of connectedness which we call *relevance*. [...] I would assume that any A is relevant to any B if both A and B are parts or components of the same ‘story’” (Bateson, 1979, p. 13).

in the restaurant booth next to me, obviously on a business trip in the city, who is Facetime-ing with her kids. The fact that she has headphones on does little to diminish (may in fact exaggerate) her own half of the conversation, quite loud relative to her physical surroundings, performed in tones of mother-to-young child. She is oblivious to her physical surroundings and others in it, and her division of attention between these separate spaces generates interactional difficulties with her waiter at nearly every point where interaction is necessary. This situation speaks to both the limitations (as tendencies) of a particular privileged space and to the possibilities (as capacities of competing spaces), though neither are managed very well—the mother *wants* to be home with her kids, and the interactional order she therefore privileges is the order of the home space. The problem, of course, is that she is physically in a relatively quiet restaurant surrounded by other people, some of whom she needs to interact with according to a very different relational order.

Shotter again helps us understand such interactional limitations by pointing out that, like the communication it enacts,

mental activity is ‘specificatory’ in nature, and [...] what we grasp in a person’s actions or expressions is a process of specification, a successive expression of differences, specifying aspect after aspect of a synchronically present whole. [...] We understand his action, not by referring it to already known general rules, laws, or principles (nor by any mysterious empathic sharing of his thoughts), but by constructing with him in the course of *joint action* a shared synchronically present whole within which each action or expression plays its part, its meaning being understood in terms of the special entities in that world and only in that world. (Shotter, 1980, p. 29-30)

The problem we currently face in the form of digitally networked communications technologies is that of several different ‘worlds’ colliding, overlapping, and interpenetrating. “As Kenneth Burke reasoned, actions gain their intelligibility from the scene in which they occur” (Gergen,

2009, p. 74-75). When several different ‘scenes’ compete for our attention, and in doing so compete to define the interactional order against and within which we constitute both ourselves and our ‘reality’, the most stable ground is evoked by the space that captures the most of our attention at the moment based upon our own situationally and *kairotically* driven (i.e., relational) intentions and motivations. Take another example, as reported to me by a student. She was practicing an upcoming speech for class to the ‘live audience’ of her boyfriend on Skype. After a few runs of the speech, the boyfriend (on Skype) asks, “Do I have to keep listening to you?” A little while later, the student asks her boyfriend, who is ‘there’ on Skype video, a question. He doesn’t respond. She calls him on his phone. “Did you mute me?!” she asks. “Yeah,” says boyfriend, “I told you I didn’t want to listen to you anymore.” They hang up their phones. The Skype video call continues. The student keeps practicing her speech.

Our motivations and intentions, too, are inherently dynamic:

rather than as static, geometric structures subject only to changes of configuration and rearrangement, people’s utterances and actions, their social institutions and practices, etc., must also be seen as dynamic stabilities produced and reproduced (and as decaying) within a continuous flow of conduct, i.e., within the structuration constitutive of social worlds. (Shotter, 1983, p. 22)

This has, of course, been the case at least since human beings emerged on this planet—beings capable of articulating and understanding different ‘worlds’ (e.g., ‘meatspace’ and ‘dreamtime’): this and that for I and you becomes here and there, becomes now and then becomes us and them. This represents the indexical ground of semiosis, and therefore what we recognize as and in both communication and cognition:

words, that others have used as a means by which to direct our mental processes as children, become the means by which we can develop the ability to direct our own mental processes [...] Thus, according to Vygotsky, what one has learned in thinking

conceptually is not how to compare the configuration or form of a mental representation with the configuration or form of a state of affairs in reality, but something else in one way more complicated, and in another more simple: one has grasped how to organize and assemble in a socially intelligible way (one that makes sense to the others around one), disparate features of one's surroundings, occurring in different places at different times, but to which one nonetheless knows how to attend, in accordance with 'instructions' these others provided, and which now a supposed 'concept' provides. (Shotter, 1997, p. 476)

The explosion of forms of communications technologies has meant an exponential expansion of possibilities of possibilities, i.e. an expansion of access to what DeLanda calls possibility spaces. To claim that one of these spaces is 'real' (and therefore more worthy of both attention and to be privileged as definitional and normative) as opposed to others that are 'virtual' is to mis(-)take the rhetorical and hermeneutical character of human 'reality' (generated in modes of perception, reception, and interaction) which comprises and encompasses a multitude of dynamic simultaneous space(time)s of relation that are variously related to one another (sometimes as gradients of abstraction, sometimes as imbricated interactional orders, sometimes as competing ideological perspectives, etc.). Several very different but accessible spaces of relations can be operative in a single physical spacetime (or 'context of situation'), many or all of which may be shared by many or all of those involved—those who, in fact, are co-constitutive of those spaces as interactants, and therefore as mediators (i.e., of mediational meanings). Mediated spaces of communication are increasingly important parts of our multiverses, and even interaction that is temporally disjuncted and supposedly 'one-way' enacts a dialogical space-making function:

I sit here alone writing, but my actions are essentially entries into a conversation. They issue from previous conversations with others and they press these conversations forward with you, the reader. That you are not physically present, and I am not speaking the

words out loud, is merely a problem of logistics. In reading the newspaper or watching television by myself I am again participating in a conversation, in this case as the recipient of words and images to which I might sometime respond¹⁵². (Gergen, 2009, p. 39)

All communication functions similarly. What digitally networked communications, and particularly interactional technologies (e.g., ‘social media’) have made possible is a vast expansion in the available spaces of increasingly dynamic relation, each with its own set of operative interaction orders, its own priorities (e.g. *entelechy*), its own disciplining etiquette—its own definitional and constitutive enabling constraints. Given the dynamics of such interactional technologies and spaces, such ‘rules’ cannot necessarily be confined to or within even specific technologies or platforms (e.g., as ‘affordances’ of interfaces). Think for example of one person “liking” a photo posted by another person at a relatively distant time in the past, say a number of years. This action is indicative (or, in Shotter’s terms, ‘specificatory’) of a number of things, including the space(s) of relations the two persons share and attention, as indicated within that space, of the ‘like-er’ to the person whose image was ‘liked’ (i.e., the indication of attention to not only the image itself but, phatically, to the relations among the ‘liker’ and the ‘post-er’). Which particular set of relations is indicated will be judged (by both ‘liker’ and ‘post-er’, as well as by others to whose attention the action is called within the platform’s space of relations) based on the interactional order of the specific technology and the interactants’ other differentially imbricated, constitutive spaces of relations (e.g., the history of the relationship, cultural assumptions, social expectations)—as will the interpretation of that act of ‘liking’ as laudatory

¹⁵² As this dissertation is, in part, a response to Gergen and continuation of that conversation (and many others) with other readers and interactants, potentially separated by vast physical distances and historical times.

and benign or as surveillance and stalking, etc. Fundamentally, digital media technologies make relationships more available, and each relationship enacts not a linear link but a spacetime of relations instantiating and constituting a set of more or less clearly defined and enforced assumptions, expectations, and potentials for action:

In every relationship there emerge potentials for being—dominant or submissive, churlish or kind, obedient or rebellious, and so on. And this may include relations with persons both in the flesh and in film, in literature, and on the web. (Gergen, 2009, p. 148)

The immediate task, then, is to better understand how technologies of mediation operate in and as spaces of relations.

Again, Scollon (2001) distinguishes two aspects of mediational means: *means* and *meanings*. Mediational means, on the one hand, refers to classes of material forms (e.g., coffee, coins, paper cups, cell phones, or apps). On the other hand, mediational mean(ing)s refer to the structures of meaning instantiated by those classes of material forms. In both of these aspects (i.e., the means and their constitutive structures of meaning), mediational means are forms of assemblage and can be characterized, according to Scollon, as dialectical, historical, partial, connective, and classificatory & representational. It seems neither possible nor profitable to strictly divide or analytically separate these co-constitutive aspects of mediational means (i.e., means and meanings): the structures of classification and representation, for example, are precisely what constitute the material forms as forms. But we can take a close look at how means and meanings relate as interactional functions.

Brian Rotman's (2008) model of what is referred to herein as a motivated actor may provide a way to better understand the relationship between these two aspects of mediational means as well as their relations to the actors for whom they serve as 'structuring structures' of both interaction and the ideological formations constituted thereby. Rotman's Person-Subject-Agent model (Figure 2), originally developed in Rotman (2000) as a theorization of the practitioner's relation to the disciplinary structure (or subject) of mathematics, provides a point of intersection between the individual and the social, or the microsocial and the macrosocial, by reminding us that just as we can understand a collective as a singular whole, we can recognize an individual – even a human individual – to be an assemblage of agents and forces: *all* wholes are collective (even if discussed as 'singularities'), just as all action is ultimately interaction (or intra-action). Communicating actors are collectives enabled (*actualized*) by interacting affective forces inherent in and co-constitutive of a space of relations.

To understand this relation of the actor to the (and as) assemblage (and thereby, the

cal discrepancy in the

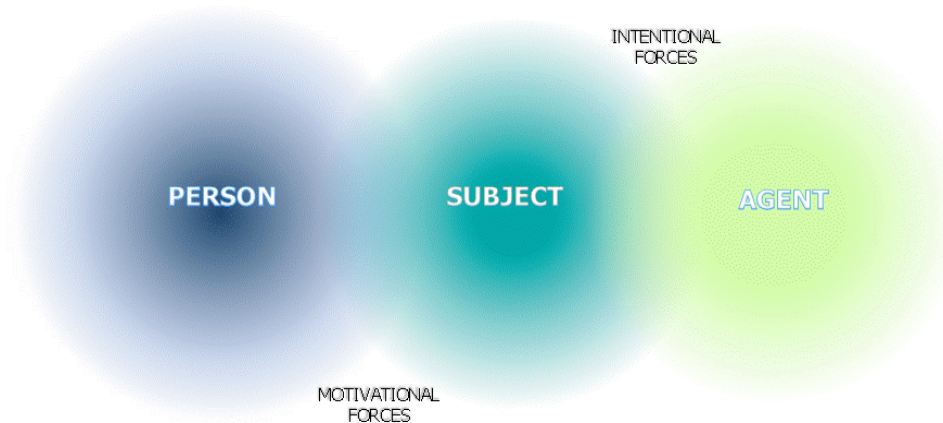


Figure 2. The motivated actor: Person – Subject – Agent. (Adapted from Karatzogianni & Handorf, 2015)

word ‘subject’. The actor, as discursive subject (e.g., the subject of a sentence), is that which acts: the subject indicates, specifies, intra-acts with other subjects within a space of material and representational relations. The paradigmatic example of such a ‘subject’ is a conscious, classically intentional human being—a person (as in Coole’s quote about agency cited earlier in the chapter). However, there is another usage of the term ‘subject’ that, given the distinctions made to this point, is distinctly different—the dialectical counterpart—of the subjective person. This is exemplified in the idea of the ‘subject’ as a discipline or field of study or interest—the force or source of subjectification. This is Rotman’s use of the term: in his original example, the ‘subject of mathematics’ is that to which and by which the mathematician, as discursive ‘subject’, is subjectified. Thus, the ‘subject’ can be understood as 1) the actor or agent, or 2) the ideological assemblage/mediational meaning. If this was not confusing enough, we can also acknowledge again that every actor can also be accounted for as an assemblage of material components and forces, and that an assemblage can act as a subject(ive actor).¹⁵³ In the following, I will mark the terms Person, Subject, and Agent to distinguish Rotman’s technical terms from the more common words they derive from. This should help to distinguish between subjects as actors and means (i.e., Agents) and Subjects as assemblages and meanings (i.e., spaces of representational relation).

¹⁵³ The citizen is the subject of the state as the courtier is the subject of the king, but the sovereign is the subjectivizing subject and a state can be a subject of discussion or subject to attack.

Referring to Figure 3, we begin with the actor (i.e., that which acts), specifically the *motivated* social actor. The locus of Rotman's model is a physical person – an emotional body-brain, an affective and affected mind-body – who physically interacts in and with the world. This person is a Person, or a *motivated* actor, in the sense of motivation described above as affective social and relational, in contrast to intention as entelechial or even algorithmic. As such, this Person is both enabled and constrained by discursively instantiated social and cultural formations and assemblages; the Subjects through which the Person is required to interact with the world

forces that constitute

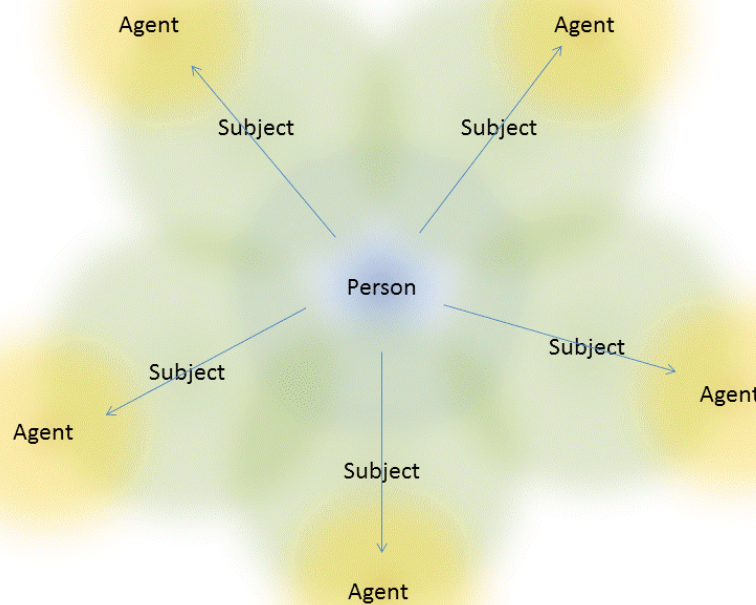


Figure 3. The motivated actor (multi-being) as nexus of Subjects. (Adapted from Aratzogianni & Schandorf, 2015) This 'molecular' model of the motivated actor should not be read as a representation of a person as 'bounded being' ensconced in a shell of Subjects. While, the present account and figure privilege the Person by constituting the motivated actor as a nexus of relations to Subjects as assemblages, or mediational mean(ing)s, a similar account privileging Subjects (as, for example, assemblages) would illustrate the Subject at the center of the cloud as a nexus of Persons and Agents. The Person is not a person. The Person is a dynamic process the function of which is to enact motivations (generated from the object process) through intentions (enacted by the Agent process).

relational identities as subjectivities. For centuries philosophers and theorists have piled up mountains of terms that address the sort of ideological subjectivizing formations that here, adapting Rotman (2000, 2008), are termed Subjects and are understood more generally as spaces of representational relations. Familiar terms include Foucault's 'discursive formations', 'disciplines, and 'epistemes'; Kuhn's 'paradigms'; Burke's 'terministic screens'; Gee's 'Discourses'; Gadamer's 'traditions' and 'hermeneutical horizons'; Wittgenstein's 'forms of life'; Bourdieu's 'habitus' (via Weber and Mauss) and 'fields'; Toulmin's 'fields of argument'; Marx's 'social formations'; Althusser's 'structures of dominance'; Husserl's 'lifeworlds'; Aristotle's (via Vico's and then Gadamer's) '*sensus communis*'; as well as a full and rich menagerie of other conceptual constructs operating under a multitude of labels including '*ethnoi*', '*ethoi*', '*logoi*', 'worldviews', 'realities', 'frames' and 'frameworks', and 'master narratives'. All of these common theoretical and philosophical concepts point, generally, to the material ideological formations that generatively constrain the actions of individuals—active, normativizing limitations on not only what can be done, but often what can and cannot be *conceived of as a possibility* within a space of relations, which are defined, delimited, and bound by possibilities of action as tendencies and capacities.¹⁵⁴

¹⁵⁴ Compare, "Weber's own use of the word 'ethos', which is related to his use of the word 'spirit' [*geist*], [which] refers to a cultural sensibility, associated with a group, class, profession, or sect, which is more diffuse than a mere ideology or doctrine, and conveys a sense of disposition, a sensibility, a moral style, and elements of a cultural psychology [...I]t comes closer to an embodied moral sensibility, which precedes action or organization and amounts to a collective psycho-moral disposition" (Appadurai, 2016, p. 39-40). I am by no means equating these terms, simply pointing to their family resemblance and relations.

As all human action is necessarily constrained by such constitutive social and ideological formations, all interaction between Persons, all representation and interpretation—what Wetherell (2012) calls affective-discursive practices—must take place through the mediation of (i.e., are necessarily mediated by) such discursively generated Subjects. Echoing Gergen's (2009) description of relational and multi-being discussed above¹⁵⁵, each Person is constituted as a nexus of Subjects, some compatible and overlapping, some inconsistent and conflicting, with the contingent of available Subjects determined by the (actual) person's access to various discourses or symbolic systems (or ideologies, rhetorics, languages, cultures, metaphor complexes, etc.). Furthermore, each Subject actively generates an Agent that is able to act—and only able to act—within the bounds of the specific symbolic/discursive subjectivity, i.e. the Subject (as assemblage), which comprises (or in Cooren's terms 'embodies') a space of possibilities of action, and to which the Agent is bound by intentional forces (i.e., the tendencies and capacities that define the potentials for and of action). The agency of the motivated actor in any given situation is both enabled and constrained by the affective-discursive (social and cultural) practices that constitute the Person as a (e.g., political) subject: Person, Subject, and Agent are co-generative dynamic processes, and it is in relation to the situationally active Subject, which defines and delimits the space of possibilities for action by the Agent, that we define the Person as a person of a particular 'type', thereby instantiating a set of assumptions and expectations. Such categorization (or even 'stereotyping') makes sense to a certain extent

¹⁵⁵ Gergen's notion of 'multi-being' more directly emphasizes the social character of the psychological self—in the present terms, the person (and Person) is co-constituted by others persons (and Persons). In the present model this interdependence is implicit in the understanding of a Subject as a social and ideological formation and, as noted in the caption to Figure 3.2, the insistence that Persons, Subjects, and Agents are co-constitutive or co-generative processes.

because a Person can only act as an Agent (i.e., an actor only *has agency*) through a socially and discursively constituted Subject—in Rotman’s (2000) original example, a mathematician only has agency, can only act as a mathematician, within the bounds of mathematics as a Subject. Outside of those bounds of potential action there is no reason to call someone a ‘mathematician’, other than, perhaps, to indicate her identity in terms of a broader, more encompassing space of relations, such as ‘professor’ or ‘academic’ or ‘intellectual’—or perhaps something more ironic or deprecatory. The Person-function instantiates a set of motivated intentional relations, the Subject-function represents a disciplining and motivating structure of relations, and the Agent-function enacts the structuration of those relations in practice (i.e., motivated and intentional acts). On this account, then, agency is a social formation: potential for action is socially and normatively authorized in identification (with a Subject).

Rotman’s model, therefore, directly binds individual agency, as the capacity for action, to affective-discursive and ideological practices. This resonates, again with Shotter, who argues that “Actions are meaningful units within practices, and practices give (seemingly) individual actions their meaning” (Shotter, 2012. p. 138). And yet, subjectivity does not arise solely or directly from a formal matrix of ‘immaterial’ ideology(s). Rotman applies his Person-Subject-Agent model to account for technologically mediated agency more broadly arguing that “any act of self-enunciation is medium-specific” (2000, p. xxxi): the Agent indicates a relation between actor (whether as Person or meditational means) and the Subject (as space of representational relations or assemblage). From this perspective, the technological instrumentalities through which we effect the affective-discursive practices motivating and shaping our actions in the world are themselves constitutive of Subject-forming assemblages. Rotman’s notion of ‘distributed’ agency examines the potentialities of the dense web of shifting Subject-Agent (i.e.,

intentional) forces available to an individual Person as an evolving mediological extension (i.e., instrumentality or mediational means) of the technosocial self. On this account, technologies, especially communication technologies—or, more specifically, the spaces of relations they instantiate—can act as subjectivizing agentic forces, no single one of which is or can be wholly constitutive of the individual's power to act. No single social identification can ever be (except, only possibly, in the most extreme circumstances) fully representative of the self, which is constituted, precisely, by the nexus of discursive and technological Subjects and subject-positions available to the embodied Person.¹⁵⁶

The value of this description of the person's (i.e., the 'multi-being's') relation to her constitutive spaces of relations (including Subjects as mediational meanings), as well as the distinction between the Person (as person) and the Agent (as instrument or mediational means) becomes even richer when articulated in relation to the previous distinction between motivation and intention. Once again, *intention* is an entelechial pull toward a goal, purpose, or set of outcomes (e.g., probabilistic 'strange attractors'), which need not be consciously 'intended' in either the classical or even the specifically phenomenological sense. *Motivation*, on the other hand, is an affective push generated from normative social identifications. Motivations are not externally attributed 'reasons' for action, as in Weber's sense; they are internal (intensive to

¹⁵⁶ My use of this model is a substantial extension and broad generalization of Rotman's formulation. Rotman's (2008) argument is more specifically focused on the idea that different Subjects delimit different forms of socio-technological agency along a historically developing continuum from 1) physical, gestural communication to 2) oral language to 3) written/alphabetic language to 4) a speculative, evolving post-linguistic technologically mediated (networked, parallel, distributed) form of communication in which the fundamental capacities of gestural and oral communication are gradually being reasserted over the dominance of linear text.

extensive), social, relational, ideological, structuring structures of action, *a la* Burke, that define the possibilities of action and, therefore, the identity of the Person as a person (i.e. a being capable of motivated action). Given this distinction, we can take Rotman's Person to be a *motivated* actor whose motivations derive from the various Subjects from which its therefore dynamic and situationally bound identities are generated and enacted (through Subject-bound Agents) in affective social relations. The *motivated* actor acts according to and within the (subjectifying) boundaries of the Subject, choosing and applying the appropriate space of possibilities (from the available Subjects as spaces of relations) in relation to her specific interactional situation (or 'context' understood at a particular level of abstraction in relation to a particular purpose), of which she is consciously and affectively aware.

The Person, however, cannot conclude our conception of the actor. A multitude of 'things', most obviously digital technologies and their networks, *act* in and affect the human world—'things' or even 'objects' that cannot be accounted for as motivated, affective and affected, socially conscious and aware persons (or Persons) have effects on and in (affect and are affected by) their (and our) shared worlds. We must therefore consider the *intentional* actor. The temptation might be to understand the *intentional* actor as a simpler construct, evocative of Burke's distinction between (conscious) action and (non-conscious) motion. This is particularly tempting since we have effectively removed consciousness from the notion of intentionality, defining consciousness specifically in relation to affective (emotional) motivation. However, people can be instrumentalized (both by other individuals and via, e.g., Cooren's 'ventriloquism' of collective agencies) and, as previously indicated, any actor (intentional or motivated) is inevitably an assemblage of complex material relations. Both Agents as mediational means and Subjects as mediational mean(ing)s can act as *intentional* actors—as in Shotter's 'third agency',

cited above. The distinction, then, between people (i.e., Persons) as actors and ‘objects’ as agents is a distinction between motivation and intention. The communication technologies and devices by and through which much of our communicative interaction is enacted can be understood as *intentional* actors or agents (which must necessarily be Agents of a Subject—though *not* necessarily agents or instruments of a Person). ‘Objects’ and technologies, almost by definition, cannot be motivated because, as actors or agents, they are not centered upon affective, emotional, socially identified Persons. In the terms of assemblage theory explored above, *feelings* are (intensive) motives (i.e., ‘passions’), but *programs* and *algorithms* are (extensive) intents (i.e., ‘desires’)—people can be ‘programmed’ but machines cannot ‘feel’ (metaphorical extensions of ‘machine perception’¹⁵⁷ and ‘machine affect’ notwithstanding). We instrumentalize our technological tools (as positive affordances) in service of intentions shaped by motivations. But those tools can themselves be understood as (or to be in the service of) subjectifying assemblages in their capacity to shape our intentions (as negative affordances), often by manipulating our motivations epideictically. Social media technologies that instrumentalize affective social identifications for purposes of corporate profit can serve as a paradigmatic example—the degree of innocuousness or maliciousness being determined by the subject (i.e., ideological) position from which the question is asked. (As cultural and critical theorists have long argued, an ideological position can only be judged from within or in relation to another ideological position—in the present terms, as one space of representational relations as a source of meaning judged against another in terms of contrasted motivating capacities and intentional tendencies.) It

¹⁵⁷ In contrast to (information) *reception*—perception is embodied, affective, and never uni-modal (if only because shaped by affective-discursive practices); a mode of reception (of information) must necessarily be uni-modal in order to constitute information.

simply cannot be argued that the actions of a corporation as an assemblage can be boiled down to, for example, the actions and decisions of a CEO. The metonymic identification of the CEO with the corporation (or the President with the party, or the general with the army) ignores the structural interdependencies in which the two constitute one another, as well as the multitude of other agents and elements comprising the collective (assemblage) as Subject as much as actor (i.e., mediational meaning as much as mediational means). Corporations are not people (i.e., Persons); they are made of people and many other things and act as mediational means toward entelechial ends and also as mediational mean(ing)s gathering and channeling the motivations of the people they comprise.

The distinction between motivation and intention allows a more subtle approach to the functions and purposes that instantiate and embody communicative interaction, as well as a more refined understanding of agency as it has been explored in recent new materialist theory, for example. The distinction acknowledges the power of nonhuman and collective agency without giving up the important difference of human beings as affective, emotional, motivated beings. The difference between human affect and ‘machine affect’—between what was described above as a distinction between motivating passion and intentional desire¹⁵⁸—hinge upon embodied emotion, which is a form of social communication. Emotions are cultural formations that require some degree of social awareness—emotions are not ‘merely’ expressions; as discussed above, they are socially authorized expressions. This also, however, does not limit the motivated actor to human beings. Motivation requires emotion, and the basic capacity for emotion is arguably best indicated by the capacity for pain (pain is not only physical, but does require a body). The distinction between a living intentional agent and a living motivated agent might be sought in the

¹⁵⁸ And therefore all arguments concerning ‘robot rights’, etc.

capacity to not only feel pain but to *recognize pain* in others (i.e., in empathy).¹⁵⁹ For this is the real pivot of the distinction between motivation and intention: motivation is a social and ideological formation. What distinguishes human beings (and other motivated actors) is the capacity—however limited—to choose our own motivations from our accessible subjectifying spaces of relations (i.e., Subjects).

Technological agents can and do act with and upon us, affecting us and our worlds, but they are limited in their capacities to act by the structuring relations (i.e., the constraints of the Subject as negative affordances) that constitute them. The GPS device mounted on the dashboard can calculate a variety of ‘decisions’ concerning route guidance based on available data and specified parameters, but it cannot choose to be something else—or *do* something else, which amounts to the same thing (the ‘mathematician’, on the other hand, performs many other social roles in which being a ‘mathematician’ has no relevance). Google Maps can make a wide range of ‘decisions’ about what to show me (i.e., bring to my attention), but those decisions are not motivated, they are intentional (i.e., algorithmic). A technological agent could be designed to mimic culturally authorized and culturally appropriate emotional responses, or even to ‘recognize’ emotional expressions based upon discrete signifiers such as vocal volume or rate, or even facial expression, heart rate, or galvanic skin response. But these ‘recognitions’ are relative to a symbolic ‘code’ based in a mode of reception (of information). A motivated human being, in contrast, recognizes emotion in relation to iconic and indexical ‘codes’ relative to (necessarily embodied) affective states. In Shotter’s terms, the intentional actor (e.g., an interface) might be

¹⁵⁹ This, of course, is also affected by socialization and enculturation (as the ‘individual’ is a relational ‘multi-being’). See, for example, Atkins, Uskul, & Cooper’s (2016) investigation of cultural differences in empathic response to pain in others.

able to model (and mimic) the actions of human beings based on the recognition of interactional patterns, but it cannot incorporate those patterns as relationally defined and affectively performed roles, which would require the socially conscious/aware recognition of and choice of adaption to or adoption of a constitutive (affectively identifying) space of relations. (This is due, in no small part, to the ‘memory’ of such a technology being the storage and recall of information rather than the re-membling of experience.) The identity(s) of an intentional actor is immutable. Larger assemblages comprising motivated and intentional actors are far more complex, but the distinction holds. A corporation, a political party, a nationality, etc., can function as an intentional actor having obvious and important effects in and on our shared worlds. Such complex ideological assemblages can be identified precisely as sources of performed (enacted) identity for motivated agents—but such ideological assemblages are not motivated agents themselves. Assemblages, as intentional actors, channel the motivations of the motivated actors they comprise toward intentional purposes and outcomes—the tendencies by which they are defined. In this way, the motivated actor ‘just doing my job’ serves as a mediational means for the intentional (collective, assemblage) actor. But she, as a Person or ‘multi-being’, can (at least potentially) choose to do otherwise—choose to disidentify with a particular assemblage or Subject (even if only relatively or temporarily) and to identify with (and act on the behalf of) another by, for example, judging the intentions of particular ideological assemblages in relation to others. Human beings are both motivated *and* intentional.

4.2.7 Actors Indicating Subjects Constituting Agents: The Dancing of Attitude

Given an understanding of communication as interaction that mediates shared spaces of relations among different forms of actors and agents, we are now, finally, in a position to

introduce the gestural character of communication: having theorized agency and the actor, we must now theorize action. The evocation of the term ‘gesture’ can be explained in relation to several other key terms that have been explained and relationally configured thusfar, specifically, deixis, epideictic, indexical, and indication. If communication is understood (rather than as ‘transmission’ through space) as the making (i.e., mediating) of space in interaction, ‘gesture’ names the indicative (or, in Shotter’s terms, ‘specificatory’) function of space-making as the relational alerting and orienting to shared spaces of representational relations. The concept of gesture privileges a number of important aspects of relationality that are absent from the assumptions of the traditional ‘transmission model’. The first is materiality. The gesture, conventionally, is the physical act of a necessarily embodied actor, emphasizing that communication is inherently dynamic and analogical, ‘multimodal’ and interactional—*all action* is material, embodied interaction, even the *intra*-action of cognition (‘an I talking to it’s me’). The term ‘gesture’ provides a label for this interactional movement—the change in perceived relations over time that constitutes communication (conception, enacted in modes of interaction, being fundamentally based on modes of perception): communication as interaction involves the spatiotemporal dynamics of embodied perception. Some forms of cognitive linguistics and semantics (e.g., Langacker, 1987, 1991; Talmy, 2000a, 2000b) have moved in this direction, but they are still largely based upon the static relations of synchronic linguistics—modeled as the ‘transmission’ and discrete ‘exchange’ of linguistic ‘signs’ as ‘information’. Undergirding (not replacing) linguistic models with a gestural schema of functional communicative interaction may allow for a shift to more dynamic approaches to the investigation of communication, particularly the digitally mediated communication that has troubled the conventional linguistic, semiotic, and

information-theoretical categories of discrete symbolic exchange as ‘symbolic interaction’ as well as the related problems of bodies in digital spaces and places.

The word *gesture* is derived from the Latin *gestus*, which denotes bearing or deportment. In this sense, ‘gesture’ is fundamentally related to the idea of self-presentation and social relations (which continues to be so important to the investigation of mediated interaction). ‘Gesture’ is also and similarly related to both ‘jest’ and ‘joust’, which are clear attitudinal (and hence modal) enactments. The sense of expressive movement implicit in these ideas gave us the contemporary definition of ‘gesture’, but is also related to the movement and change indicated in the related words *ingest* and *digest* in terms both material (e.g., food) and conceptual (e.g., ideas—the ancient metaphor IDEAS ARE FOOD, for example, is found throughout both the Old and New Testaments, and is made quite explicit in the ritual gestures of the Christian communion). *Gesture* is also and similarly related to *gestation* and *gestate*, and we readily conceptualize ideas as being both ‘sowed’ as ‘seeds’ of action (e.g., ‘good thoughts bring forth good fruit’, which can be traced back to at least Plato) and thoughts being ‘born’ like Athena from the mind of Zeus. These etymological and conceptual relations, binding the psychological self and the social self to the material body, make it easier to understand why gesture and ‘nonverbal’ communication have been argued to be the evolutionary forerunner of language and linguistic communication since the dawn of Western culture.

There is nothing novel or revolutionary in the claim that it is in gestural movement and only secondarily in verbal language that the human mind arose: symbolic interaction emerged from indicative gestural signals (as meaning, i.e., the semantic, is fundamentally indexical). The idea that language originated in gesture can be found at least as far back as the writings of the ancient Epicurean poet Lucretius (2005), with notable developments from the beginning of the

modern era by John Bulwer (1664) in the 17th century, and Etienne Condillac (1756) and Giambattista Vico (1744) in the 18th century, and of course Merleau-Ponty (2002)¹⁶⁰. George Herbert Mead (1934) described language, generally, as ‘vocal gesture’, arguing, like his colleague Robert Park, that communication is fundamentally gestural:

In human society every act of every individual tends to become a gesture, since what one does is always an indication of what one intends to do. The consequence is that the individual in society lives a more or less public existence, in which all his acts are anticipated, checked, inhibited, or modified by the gestures and the intentions of his fellows. It is in this social conflict, in which every individual lives more or less in the mind of every other individual, that human nature and the individual may acquire their most characteristic and human traits. (Park, 1927, p. 738)

More recently, Debra Hawhee argues that Sir Richard Paget’s (1930) “bodily theories of language turn on its head the relatively recent commonplace of ‘the body as a discursive formation’, offering instead discourse as a bodily formation” (Hawhee, 2006, p. 332). Paget developed an extensive, if highly speculative, argument for the phonemic evolution of human language from bodily (vocal) gesture—an argument whose basic premises have recently been recapitulated (perhaps unknowingly) in cognitive linguistics (Rhodes & Lawler, 1981; Rhodes, 1994; Bergen, 2004). Leroi-Gourhan’s (1964) *Gesture and Speech*, a classic of paleoanthropology, is an encyclopedic (if now outdated) argument for the evolutionary connection between the face and the hand, cognition and tool use, language and gesture, and ultimately the (social) body and mind (for a current account, see e.g. Radman 2013).

As previously noted, the first contemporary scholar to make a direct and thorough case for gesture as the basis of cognition was phenomenologist Tr  n Duc Thao (1984 [1973]).

‘Indicate’, ‘index’, and ‘deixis’ are all etymologically derived from the act of pointing (with the

¹⁶⁰ See also Backhaus (2009) on Merleau-Ponty’s gestural theory of language.

‘*index* finger’ — δειξίς means pointing, see Lenz, 2003), and Thao argues that the “indicative gesture marks the most elementary relation of consciousness to the object as external object” (Thao, 1984, p. 4). Thao’s position has been recently recapitulated by others, including Raymond Tallis (2011), who also argues that the basic act of pointing represents the root of human consciousness: the cognitive capacity for indexicality is constitutive of the theory of mind necessary for the conscious differentiation of self from other—a necessary condition for intentional communication from an alerting and orienting ‘self’ to a socially co-constitutive ‘other’. Pointing is co-action: pointing requires a pointer, something being pointed at, and someone for whose benefit the pointing is taking place, a situation that Sperber and Wilson (1996) recognize as the basic act of communication—one actor or agent drawing another actor or agent’s attention to something relevant, making it ‘mutually manifest’, and thereby acknowledging the intrinsic, situated relation of self to other.

Pointing as a physical act indicating relevance is, therefore, fundamentally dialogical: indicating something for another while drawing attention back to the person doing the indicating, whose body is used as the referent and deictic *origo* of the vector of the pointing act. Even in the case of one person pointing directly at another for the sole benefit of that other, what is being indicated is the relation itself: a phatic act that manifests, shapes, or otherwise serves to express the relationship between the two individuals in that moment and indicate possibilities of further action and response. I point at you to acknowledge you, to inquire, to challenge, to threaten. Even the most basic and fundamentally characteristic form of digitally networked communication is, at base, an act of direct indication: the hyperlink that ‘points to’ another web page. The gesture *away from* the self and *for* the other, instantiates a set of relations in the world that is (as far as we yet know) unique to human consciousness; the indicative gesture is the basic

act of communication that forms the basis of the human capacity for symbolic representation and language. In contrast, while we may be able to apply this indicative dimension of interaction to the complex communication of certain social animals, e.g., elephants and dolphins¹⁶¹ (and perhaps nonhuman signaling more generally), other animals do not (as far as we know) ‘point’, at least not for the familiar human purposes of direct deictic indication and establishing shared attention. Chimpanzees can be trained to use gestures when rewards are involved, but they do not point in the wild (Tallis, 2010; see also Tomasello 2006). In human infants, however, hand gestures are a critical precursor to speech. Infants with autism do not point, making the absence of this and other gestures an important diagnostic indicator of early cognitive development (Baron-Cohen, 1995; Tallis, 2010) as well as socialization (the latter also being indicative of the former). Pointing, the basic human act of indication for another, is thus a reflexive manifestation of “indexical awareness,” argues Tallis (2010, p. 28), and ultimately of social agency. Other recent arguments and evidence for the evolutionary priority of gesture, drawing from the cognitive sciences, have been developed by, e.g., Armstrong (1991), Donald (1991), Deacon (1997), Stokoe (2001), and Corballis (2002, 2013). Armstrong and Wilcox (2007), for example, (updating Leroi-Gourhan and Thao) present evidence for the fact that bipedalism and the gradual development of technology (representing the products of socially learned skills) preceded the evolutionary development of a vocal apparatus capable of full human speech. The implication is that proto-human cultures were enacted and transmitted through gesture and sign: language

¹⁶¹ Dolphins use sonar for both hunting and communicating: there are indications that they have a language (and use personal names, see King & Janik, 2013) that is cognitively imagistic—dolphins “see” sound and use imagistic “words.” Elephants, on the other hand (like some whales), communicate at subsonic frequencies, coordinating with each other over great distances. Both of these (i.e., names and directions) are forms of indication.

without speech. Such an idea is far from alien to any of the millions of people today for whom a sign language is a first language (see Sacks 2000; Stokoe 2001), and has found recent support in archeological evidence of the symbolic capabilities of Neanderthals (see, e.g., Johansson, 2015).¹⁶²

The concept of gesture is rooted in movement, or the perception of (paradigmatically physical and spatial) change over time, and therefore in meaning as a matter of dynamic material relations. For Carrie Noland (2009), what makes an act of communication (linguistic or otherwise) a ‘gesture’ is the involvement of the body in a double process of active (muscular) displacement and (sensory) information gathering: we send information as we receive information; we enact our spaces of communication, our cognitive and cultural environments. Adam Kendon loosely defines gesture as “actions that have the features of manifest deliberate expressiveness” (2004, p. 15). This broad definition is intended to cover a wide range of ‘nonverbal’ and/or ‘paralinguistic’ behaviors that support a broad variety of utterances on a continuum from non-systematic and unconscious to more formally linguistic: gesticulation,

¹⁶² Just as a sizable body of archeological evidence for human culture predates the biological evolution of the modern human (*homo sapiens*) vocal (and therefore the conventionally ‘verbal’) apparatus, a related and sizable body of evidence from across the animal world continues to demonstrate, on the one hand, conventional linguistic features in animal communication (e.g., Suzuki, Wheatcroft, & Griesser’s, 2016, elucidation of compositional syntax in bird calls) and, on the other, both wide ranges of tool use by animals as well as cultural behaviors by a variety of non-human species. Most recently, Köhl et al (2016) have documented “repeated observations of individual chimpanzees exhibiting stone tool use for a purpose other than extractive foraging at what appear to be targeted trees,” which evidences “a ritualized behavioural display and collection of artefacts at particular locations,” which has implications for the origins of ritual, and therefore culture.

language-like utterances, pantomimes, emblems (i.e., conventional embodied signs, such as ‘thumbs-up’), and finally fully systematized (i.e., syntactical) sign languages (McNeill, 1992, p.37). Opposing the common tendency to approach the gestural in terms of ‘paralinguistic’ ‘metacommunication’, and sign languages as a somewhat debased form of ‘real’, i.e., spoken languages, McNeill (2005) insists that gestures “are *part* of language” rather than a separate ‘body language’ divorced from linguistic communication processes. However, one of the biggest drawbacks of models of (inter)action based on linguistic and semiotic assumptions is their difficulties in accounting for the embodied aspects of language, precisely because such models are irreparably static. A key motivating force of Saussurean structural linguistics was specifically a turn from the diachronic linguistics of linguistic anthropology and historical philology to the synchronic linguistics of structuralism—from the investigation of how languages developed historically to the investigation of how contemporary language works (functions) and/or is used. The structuralist argument implied that modern languages represent a pinnacle of human social achievement, and are therefore static formations, or can be treated as such (i.e., language systems as *langue*), that can be discretely measured and empirically described. Earlier philological and linguistic anthropological accounts (when the idea of ongoing language evolution was even acknowledged) assumed that developments in modern languages could be explained with the elucidation of historical processes of systematic phonemic change. But the emphasis on diachronic process made few means available for understanding the dynamics and disparities of contemporary languages, or in fact any particular historical language-in-use (as synchronic systems of relations).

The structuralists, however, weren’t able to do much better than acknowledge the dynamicism of language. Accounting for language as an arbitrary syntactical system cannot

account for change, particularly since the actual linguistic act (as *parole*) is denigrated as derivative of systemic processes (i.e., syntax coding semantics through pragmatics). As

Blommaert & Huang note,

What can, historically, be seen as systemic or structural features (i.e. features that define a particular social system in a particular period) becomes in this chronological and synchronic paradigm converted into permanencies, and hence into essences.

Synchronicity therefore inevitably contains seeds of essentialism. (Blommaert & Huang, 2009, p. 271)

Such essentialism *assumes* systems of meaning as *a priori* and given, eliminating any need or desire for their investigation and elucidation. Thus, as Shotter argues,

it is no use us searching (as we have done in structural linguistics) for a word's meaning in terms of its function or role within a closed system of formal and decontextualized sign type-to-sign type relationships. That leaves us no way of grasping the unique uses to which we put our words in the circumstances of their use that give our words their precise meaning in practice. (Shotter, 1997, p. 474)

Nevertheless, the focus on the synchronic shapes even more recent dynamic models of language and cognition, such as Fauconnier's (1994) 'mental spaces', which constitute 'maps' of conceptual relations. While such models can be incredibly valuable and elucidating, they are stuck in the ironic position of statically modeling inherently dynamic processes. This despite the fact that many such theoretical perspectives explicitly assume that conceptualization is fundamentally grounded in embodied perception and the limits of the perceptual apparatus—perception (like conception, and like the cognition that binds them) is *always dynamic*.

Again, the biological investigation of perception (perception being necessary for *interaction*) is typically undertaken in terms of the 'input' and 'processing' of perceptual 'information' via modes of reception. These concepts rely on a metaphorical model of the mind

as a computer that can be traced back to cybernetic theory in which ‘information’ was, by definition, ‘new’: received ‘information’ constituted figural change perceived against a static or consistent ground.¹⁶³ Such change is most readily conceptualized or understood as movement: the ‘transmission’ of a ‘message’, most conventionally, involves some form of movement resulting in a perceptual change for the receiver. Such movement can be the direct movement of a ‘sender’ or, with a slight shift in the range of the models being applied, a movement of the ‘receiver’s’ perceptual (or even conceptual) awareness (as in the reading that you are doing now). “All communication is movement,” argues Kress:

Interacting in dialogue is movement: my interest directs my attention; it frames a part of the semiotic world. I select from the *prompt* that I receive and construct a complex sign/text/ensemble as my response in return; which I pass on to my interlocutors. Turning the pages of a book is movement, preceded by the movement of my eyes over the lines of print and the simultaneous ‘inner’ movement of my interpretation of the written, ordered material. Entering into the syntax of the linguistic, written ‘stuff’ that I am engaging with, is movement of a quite different kind. This is not to speak of the movement of what I have been taught to call ‘my imagination’. [...] Movement and meaning are intertwined [...] (Kress, 2010, p. 115-116)

Such linguistic- and semiotic-derived models, however, (even when articulated as ‘multimodal’) are bound to static, synchronic, ‘snapshots’ of signification that can account for such movement, at best, at one frame at a time, so to speak. Nevertheless, there is precedent for connecting the linguistic (and therefore informational) with the gestural.

About the same time that the early cyberneticists were formulating models of communication as movements (over time, in the completion of a ‘circuit’) of command and

¹⁶³ Shotter, however, rightly argues that “On a dimension running from plants to computers, we appear to be much nearer to plants than computers” (Shotter, 2012, p. 140).

control, Blackmur argued explicitly for a conception of expressive language as gestural, arguing that gestures “are the first steps toward the making of symbols, and these symbols which endure are the residuary legatees of the meanings earned through gesture” (Blackmur, 1942, p. 16-17). There is a clear precedent for exploring the connections among (symbolic) language and (embodied) gesture in the study of interjections, ‘word-like’ expressions such as *hey*, *uh*, *ouch*, *whoa*, *yuck*, and a multitude of familiar, more or less linguistic forms and conventions that imbue normal conversation in natural human languages. From a linguistic-pragmatics perspective, Wierzbicka (1992) and Wharton (2009), for example, describe interjections as “vocal gestures.” While gestures have been generally dismissed from traditional (Chomskyan) linguistics as an aspect of ‘performance’ rather than language proper (i.e., language as syntactical relations), the linguistic status of interjections – which can be understood as functionally similar and sometimes performatively related to bodily gestures – has been the subject of debate thanks to their more transcribable, ‘word-like’ forms (Ameka, 1992; Wharton, 2009; Wierzbicka, 1992). Ameka (1992, p. 106) discusses interjections as “relatively conventionalized vocal gestures (or more generally, linguistic gestures),” and delineates three properties of interjections: they 1) “include items which were thought of as ‘non-words’,” 2) “were thought of as being syntactically independent,” and 3) “are said to signify a feeling or a state of mind” (p.102). As a ‘context-bound’ set of objects/behaviors that “encode speaker attitudes and communicative intentions” (1992, p.107), Ameka argues, “there is no doubt that there is an intimate connection between interjections and gestures in general” (ibid, p.112). Interjections and gestures, as forms of ‘paralinguistic communication’, therefore, trouble the boundary between the verbal and the non-verbal, problematizing the definitions and hierarchies of conventional linguistics. In textual digital interaction, an interjection is clearly a linguistic expression in the sense that it uses *typed*

orthographic linguistic conventions to impart a definite, contextual, semantic content (i.e., syntactical, functional meaning). The formal semantic character of a linguist's (or conversation analyst's) transcription of a verbal interjection is certainly debatable, but it seems beyond argument that an interjection or expression that is clearly not a 'word' (e.g., 'grrrrrrr') carries meaning as an electronic text message in mediated conversation. In a paper titled "So you think gestures are nonverbal?" David McNeill (1985) attacks the conventional border between the linguistic and gestural arguing that gestures and language are part of the same psychological structure. The present argument might be characterized as the dialectically opposite: *so you think language is non-gestural?*

'Gesture' labels the enactment of meaning—immanently material, embodied, affective, and relational—as the nexus of perception and conception, cognition and communication, the psychological and the social, as the indication of a Subject through an Agent in time.¹⁶⁴ In this sense, actors are those whom indicatively co-constitute shared spaces of relations.¹⁶⁵ Communication, as interaction, is thus that which is enacted by an actor for another within a shared space of conceptual relations (even if that 'other' is an aspect of the 'self'—an 'I' to a

¹⁶⁴ "In a sense, all acts of recognition, all acts of recollection, require some kind of motor activity. We come to perceive and understand the physical world by exploring it with our hands, our eyes, and the movements of our bodies; our recollections and recognitions of the world are intimately related to those very movements we use to explore it. Motor acts help establish a context, an immediate contact with the environment" (Rosenfield, 1988, p. 79-80).

¹⁶⁵ We can, then, understand (potentially motivated) actors and (intentional) agents as indicators, and spaces of relations as the indicated—but, importantly, 'indicator' and 'indicated' (or 'specifier' and 'specified') are not equivalent to 'signifier' and 'signified', which are inert aspects of perceived 'signs' 'received' as 'information' *by* actors and agents.

‘me’). Communication as gesture can, therefore, be understood as enacted in three broad, mutually dependent dimensions of 1) *expression* of self, 2) as *indication* for another or others, within 3) a space of *representational* relations, within a temporal dimension understood in relation to communicative purposes as socially derived motivations driving intentions as entelchial goals. Accounting for communication as gesture does not necessitate abandoning the linguistic, but undergirds linguistic and semiotic accounts of communication, which are understood to privilege the *representative* dimension (e.g., the Subject as ‘structuring structure’ and mediational meaning) over the *expressive* and *indicative* dimensions in which structuration happens in and as continuous dynamic development (with ‘duality of structure’, i.e., retrospective and prospective indication of relations). Communication as gesture, then, foregrounds the temporal dynamics of interaction as a movement from the deictic *origo* of the actor co-constituted by a given space of relations, and therefore shaped by the entelechy of social motivations bound to tendencies and capacities. Interaction is, to quote Burke (1968), “the dancing of an attitude” enacted as what Gergen (2009) describes as the ‘choreography of co-action’: confluent movements of motivations and intentions as changes in relations over time. The agency of the (intentional) actor or agent is defined by both the potentials for action within the bounds of the subjectivizing assemblage, as well as (for the motivated actor) the capacity (as an assemblage herself) to choose among accessible subjectivizing assemblages that generatively constrain potentials for identity defined by future action and relations (which includes both the active re-membering of past relations and the active, motivated combination of different subjectivizing spaces of relations to generate new spaces of meaning). The final section of this chapter collects all of the foregoing into a theoretical account of communication based in gesture.

4.3 Gesture, Action, & Meaning: A Gesture Theory of Communication

What others hear us saying in our speech depends upon what, gesturally, we ‘show’ in it; and that, what we ‘show’ in it (i.e., ‘gesture’ or ‘point’ toward) depends upon what we bodily ‘feel’ or ‘sense’ from within our living involvement in the whole speech process. Thus, [...] rather than us acting ‘out of’ an inner plan or schema, we can think of ourselves in practice as acting ‘into’ our own present circumstances, in terms of the opportunities and barriers, the permissions, prohibitions, callings, rejections, requestings, refusals, and other voicings it offers us. [...] What we ‘show’ or begin to express at any one moment in our speaking, is one of the ‘tendencies’ among the field of possibilities within which we sense ourselves being ‘placed’ or ‘positioned’. (Shotter, 1997, p. 487)

In this passage, Shotter, drawing from Bakhtin, Vygotsky, and Wittgenstein, characterizes interpersonal processes in terms that align perfectly with the account of communication as interaction that has been gradually developed herein. Acts of communication indicate shared spaces of (material, conceptual, ideological) relations that define the possibilities of action as territories of generative constraint dynamically expressed and instantiated as normative assumptions and expectations. It is in precisely this sense that I have insisted on communication as space-making. The idea is not novel. As seen in Chapter 2, spatial metaphors, unsurprisingly, fill out theoretical orientations as much as they structure language in general. Antonio Gramsci’s well-known concept of *interpellation* covers similar territory, and, in fact, etymologically, means ‘positioning’ or ‘em-placing’—much like Stone’s (1995) use of the term *locating*. The related concept of *articulation*, from critical theory and cultural studies, similarly evokes the relational positioning and dynamic configuration of ideas, signs, artifacts, and people (e.g., Stormer, 2004; Clarke, 2015). A variety of discursive ‘positioning theories’ (e.g., Howie & Peters, 1996; Harré & van Langenhove, 1999) also provide an understanding of the explicitly socio-spatial relations performed in communication, as do discursive theories of “stance-taking”

(e.g., Englebretson, 2007; Stivers, 2008; Jaffe, 2009). The difference is that in the account of communication described herein, ‘gesture’ is understood in terms of the basic act of indication—of situated, mutually constituted, self-and-other. This gestural character of communication is taken to be basic, fundamental, pre-linguistic, and pre-symbolic: indication makes language (the symbolic) possible. The basic gestural function of interaction indicates—as an act of territorialization—the spaces of relations in which expression of self for another, and therefore interaction, becomes possible. The ‘common ground’ necessary for communication, is dynamically delimited in the basic act of gesture.

Theoretically operationalizing gesture thus involves the triangulation of three dynamic and interdependent dimensions of action (*expression*, *indication*, and *representation*) within a temporal dimension (presented as a functional vector from *motivation* toward *intention*), which can be accounted for as orienting (*synchronic* or *diachronic*) spacetime or oriented or reorienting (*kairotic*) moment. These are the functional dimensions of communication. The three spatial dimensions can be compared with earlier functional accounts of communication that ultimately draw from Bühler’s adaptation of ancient Greek grammatical categories (i.e., first, second, and third person), such as Halliday’s three ‘metafunctions’ of language (*ideational*, *interpersonal*, and *textual*). Halliday’s systemic functional grammar is a linguistic model with the goal of explaining language in relation to and in terms of communication; in contrast, the gesture theory of communication is an attempt to explain communication as logically prior to language—in other words, ‘language’ is not taken as a paradigmatic model (or metaphor) of communication, nor is the symbolic-syntactic privileged over the indexical-semantic and the iconic-pragmatic. However, like Halliday’s metafunctions (and Peirce’s three aspects of the ‘sign’), the *expressive*, the *indicative*, and the *representative* are not hierarchical analytical categories, but three relative

dimensions that are always present in any act of communication. These three dimensions are understood to be dynamically co-generative, actively co-constitutive of one another in interaction over time. For example, the *expressive* names the psychological dimension of interaction, but expression cannot occur apart from a physical apparatus (of both perception and enaction, hence *indication*) of both the so-called ‘sender’ and the so-called ‘receiver’, nor outside of a shared normative conceptual (*representational*) structure of assumption and expectation—only by which can action be recognized, interpreted, comprehended, and evaluated. Similarly, the *indicative* names the social, ‘for-another’, dimension of interaction, but such action is always and can only be the expression of and from a ‘subject-position’ within a space of normative (physical, conceptual, and social) relations. Finally, the *representative* names the normative, epistemological, and ontological dimension of interaction, which does not and cannot exist apart from acts of ideological reproduction, contestation, and negotiation—Subjects do not exist as *a priori* discrete, separate, ideal, or static configurations into which Persons are ‘placed’. Persons, Subjects, and Agents are mutually constitutive; *representation* cannot exist apart from *indication* and *expression*, nor the latter apart from the former. The figure provides a terminological schema illustrating these relations, which integrates the many terms previously introduced, along with two temporal aspects to be developed shortly.

As Figure 4 indicates, the present account does not attempt to generate a wholly novel terminology but seeks to reorient basic communication and social scientific theoretical terminologies from semiotics, information theory, linguistics, and rhetoric, into a metatheoretical orientation capable of anchoring these different disciplinary and subdisciplinary perspectives so that they might more productively interact. One particularly and immediately relevant aspect of this account is a shift of emphasis away from representation. While this gesture theory of

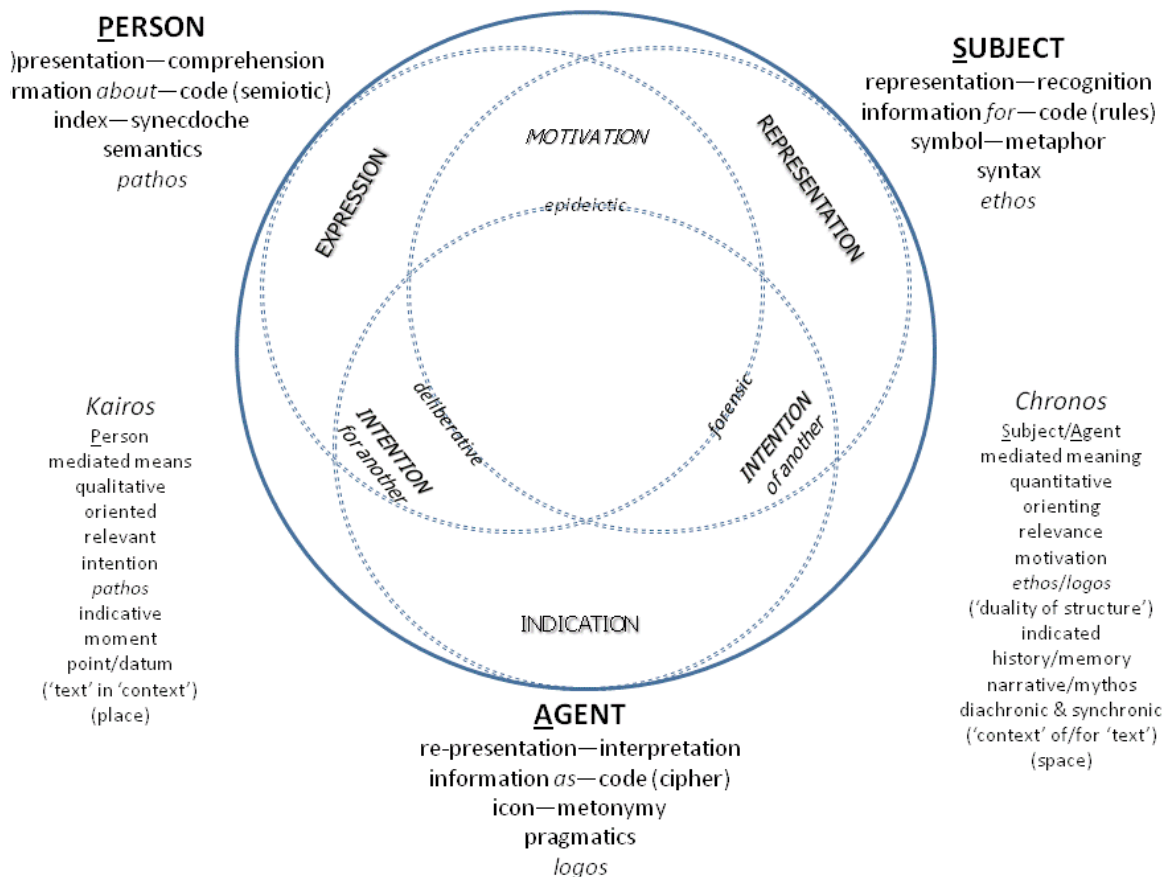


Figure 4. A terminological schema for the gesture theory of communication.

communication is not a nonrepresentational theory, unlike conventional theoretical accounts, it does not privilege the symbolic and syntactical. Benefits of this shift can be discerned fairly quickly. The elucidation of the three spatial dimensions and their co-constitutive relations, for example, immediately makes apparent a historical weakness of traditional accounts, which uniformly privilege representation: the basic misalignment of *logos*, which is conventionally understood as the ‘logic’ or ‘structure’ of the symbolic and syntactical. When *logos* (articulated, for example, as the rhetorical-forensic, apodeictic determination of the past or retrospective structuration) is understood instead as pragmatic and iconic, as an aspect of the Agent (i.e., as an

aspect of intentional action), the function of information (as coded re-presentation for interpretation) in the establishment and normative enforcement (indication) of ‘truth’ can be understood in its relation to ‘context’ and ‘level of abstraction’ (both aspects of representation, i.e. of the Subject) as well as to purpose (i.e., motivated expression, i.e. of the Person). Interpretation via *logos* is impossible without recognition via *ethos* and comprehension via *pathos*: a ‘logic’ is the pragmatics of an *episteme*.¹⁶⁶

The difficulty immediately encountered in presenting this theory is the problem of where to begin. It is taken as given that all of these dimensions are co-occurrent and co-constitutive as aspects of co-action in confluence. There is no ‘beginning’; there is only process—‘beginnings’ are *kairotically* indicated (⌘)presentations of previous ‘endings’; ‘endings’ are inevitably new ‘beginnings’—‘beginnings’ and ‘endings’ are nonrepresentational, affective, *kairotic* ‘signs’, recognized, interpreted, and comprehended. The necessity of a (linear) theoretical narrative should in no way indicate a logical priority of one dimension over the others. Nevertheless, I *am* privileging *indication* (hence, ‘gesture’), if only to indicate the de-emphasis of *representation*. (A privileging of *expression*, on the other hand, would severely limit the productivity of this account by de-emphasizing or eliminating consideration of non-motivated actors and agents—

¹⁶⁶ This is a rather significant departure from even the classical and rhetorical tradition, which locates *logos* in relation to language (or the symbolic), *ethos* in relation to the speaker, and *pathos* in relation to the audience. My argument is that a speaker’s *ethos* is located, not in the actor (i.e., ‘speaker’) herself, but in the constitutive Subject being enacted, while *logos* is the means of functional re-presentation of that Subject by the Agent—whether or not a Person, in the form of a *motivated* actor, is involved. When a Person, and therefore a *motivated* actor, is involved, so (by definition) is *pathos* as mode of embodied, affective, interaction with other co-constitutive actors within the enacted Subject. In this way, I am taking the modes of *pisteis* (proof or belief) as modes of (inter)action—‘belief’ is an act.

and would also be susceptible to all the faults of dualistic accounts that oppose disembodied ‘reason’ to embodied expression, which includes most contemporary affect theories.) The ‘problem of representation’ and its politics have a very long and living history (e.g., in critical and cultural studies), and I will not attempt to recapitulate those arguments here. My hope is that by positioning representation as a dimension of communication in relation, on the one hand, to the comparable dimensions of expression and indication, and on the other, to the interactional and agentic forces of motivation and intention, it may become possible, for example, to more productively integrate problems of social and political representation with problems of agency and intentionality. It is probably best to begin, then, like all communication, with *indication*.

4.3.1 Indication & Indexicality

Perhaps the oddest element of this schema on first inspection, particularly given the emphasis placed to this point on deixis, is the alignment of indexicality with the dimension of *expression* and not with the dimension of *indication*. First, it is important to understand that the *indicative* dimension is, inevitably, indicative of 1) the space of representation that generatively constrains 2) the active intentions of the actor or agent (as indicator) in relation to other actors and agents similarly mutually constitutive of the broader situation (as a space of relations). Second, the *indicative* dimension of any act of communication is not to be mistaken for (or taken to be isomorphic with) any particular communicative act of any particular actor, as, for example, a specific ‘sender’ indicating some meaning to some ‘receiver’. A specific act of communication may be primarily *indexical* (ostensive-inferential indication for-another), but every act of communication has, necessarily, an *indicative* dimension. *Indication*, thus, has two aspects, each directly related to each of the other two dimensions, respectively: indication *of* (*viz*,

representation) and indication *for* (*viz*, *expression*), both of which are effectations of intention. It is in precisely these aspects that communication is understood as fundamentally both functional and relevant—not as the ‘transmission’ of discrete ‘messages’, but as the indication of relevance (i.e., as ostensive-inferential) within a constitutive and structuring space of relations that is actively constructed and continually, dynamically re-constructed in ongoing acts of indication, or ‘gesture’. In the terms of relevance theory (Sperber & Wilson, 1995), “relevance” is relative both to “mutually manifest” or shared ‘context’ and to intent, understood as the communicators’ “cognitive goals.” Communicators share a “cognitive environment,” and “relevant” communication is produced as an ostensive-inferential ‘sign’ or set of ‘signs’ that indicates and implicates an interpretation that is optimally relevant given the perceived set of ‘contextual’ relations, signs which can be, but are not *necessarily*, verbal or even symbolic (i.e., conventionally representational). The form and manner in which communicative intent is presented or implied (i.e., *expressed* and *indicated*) guides the inferential processes required to interpret the intended ‘message(s)’ in relation to a set of (material, physical, psychological, social, historical, ideological, etc.) relations—a Subject. Communication, therefore, is an intersubjective (or intrasubjective) process of the modification of a shared ‘context’ or “cognitive environment”: “contextual effects in an individual are *cognitive effects*... [t]hey are changes in the individual’s beliefs” (Sperber & Wilson, 1996, p.265). Not insignificantly, this also makes communication inherently rhetorical: “To say something is to present it, to point to it, to engage in what we ought to call pointing, indication, which is the etymological meaning of the Greek term *epideixis*” (Kochin, 2009, p. 83). It is in this sense, then, that *indication* is the dimension of pragmatic interpretation. As the pragmatic re-presentation of a constitutive order, the *indicative* dimension is thus iconic and metonymic relative to the representative space of relations:

indicative information is coded as a cipher, i.e. as indicating ‘signs’ to indicated ‘space’ as ‘text’ (i.e., ‘signs’ enacted by the Agent) to ‘context’ (i.e., ‘system’ of ‘subjectifying’ representational relations, or Subject).¹⁶⁷

4.3.2 **Representation as the Indication of Relations**

Communication as ‘symbolic action’ is most typically and conventionally accounted for in these terms of ‘text’ to ‘context’. However, as previously argued, these terms—which activate (*indicate*) a particular perspectival and relational orientation to representation—privilege the ‘text’ as a discrete unit or grouped set of units of meaning, typically in the form of syntactically encoded semantic relations (i.e., ‘information’) from which a space of relations is constructed (i.e., as ‘signs’ as components of a ‘system’, or ‘nodes’ in a ‘network’ of meaning). This privileging of the iconic-metonymic re-presentation of a nevertheless living, dynamic, co-constitutive space of relations generates the paradoxical tension in symbolically and syntactically rooted approaches to communication (typically elided as ‘language’): while static structure is privileged, typically if implicitly in relation to *logos* (i.e., for conventional linguistics, the study of language *just is* the study of syntactical relations), the dynamic ‘message’ (as a ‘sign’ or group of ‘signs’ understood as a discrete unit of ‘information’) is the only way to perceive or approach the underlying structure. This tension is evident in the preference of traditional grammarians for the ‘proper’ structure of invented, ideal sentences over the messiness of natural language utterances in actual discourse: relations are easier to ‘understand’ when they stand still.

¹⁶⁷ Again, *indicator* and *indicated* are not equivalent to *signifier* and *signified*. Signification—particularly when signification is effectively limited to the symbolic—is one (representational) form of indication.

However, communication, particularly when it is taken for the dynamic process it must be, never stands still—there can be no meaning in stasis just as (and for the same reasons) there is no life in stasis (though, in fact, given the relational ontology adopted, even ‘stasis’ can only be relative). Communication is a process of making spaces (or more accurately, *spacetimes*), and such processes are immediately apparent in both the very idea of relationality itself, and in perfectly mundane interaction. Keeping in mind that any set of relations can be understood to constitute a space(time), we can recognize that at the material, physical level “speakers continuously set up spatial distinctions and relations by way of their gestures and use these spaces to structure the[ir] discourse” (McNeill & Pedelty, 1995, p.65; see also, e.g., Haviland, 1992). Haviland (2000) demonstrates this directly in how co-speech gesture instantiates conceptual space as physical space in routine conversation, which McNeill, Cassell, & Levy (1993) discuss as “abstract deixis.” McNeill and Pedelty (1995, p.65), focusing on cognitive orientation to physical space in interaction, point out that “[a]lthough there is but one physical space, there are multiple semiotic spaces [...]” However, as argued in Chapter 2, even the ‘physical’ space of interaction is not so uniform and ‘given’ as we tend to assume. The “spaces in which human acts occur are not simply physical spaces. They are simultaneously physical, conceptual, moral, and ethical spaces,” *inter alia* (Williams, 1995, p. 51-52). Physical spaces, as dynamic sets of relations, are also, inherently, semiotic spaces. If they were not, they could not be recognized *as spaces*.

Ruthrof (2000) understands this as *implicit deixis*. To reiterate, *deixis* indicates a person’s position in relation to her world and the people and objects in it. In linguistic terms, *personal deixis* includes, for example, pronouns and points to the differential relations among interactants and objects in a communicative situation, including hierarchical social relations; *spatial deixis*

(e.g. *this, that, here, there, go, come*) indicates the communicator's physical position in relation to others and objects in the world; *temporal deixis* (e.g. *then, now, meanwhile*) refers to the time of the communication in relation to other actions and situations. If indexical awareness is the fundamental ground of human consciousness in the sense that Thao (1983) and Tallis (2010) suggest, then *deixis* (as indexicality) represents its functional instantiation in the way people position themselves and others in relation to the worlds of which they are active parts.

Specifically *symbolic* representation is secondary and possible only within an *expressed* deictic 'context' (approached at a particular level of abstraction for a particular purpose), i.e., an *indicated* Subject constituting and constituted by semiotic relations:

all meaningful action is concerned with the interactive construction of a person. Each time an index occurs, its terms depend on who the actor is being; that in turn depends on the relationship between everyone involved and what they are doing together there at that moment. The point that marks where and when *I* stand consists of an intersection of the social frame and cultural definition of a relationship and the particular events of the moment. The terms of *here* and *now* can expand or contract to take in *this* room or *this* planet, *this* minute or *this* millennium, depending on what action *I* am engaged in, who with and why, and how it all defines *me*. This is social action in Weber's (1978) sense: motivated, oriented towards others, and continually subject to interpretation. Defining *here* and *now* at any given moment is a social action, always dependent on the *I-you* relation. At every moment, the person is a cultural creation, which means in turn that indexicality is at every moment symbolically mediated. Each sign system [...] generates and defines a person. (Urciuoli, 1995, p.192)

However, there is much more to *deixis* than the strictly symbolic. As Ruthrof argues, "the vast majority of deictic aspects are concealed or implicit" (2000, p.48-49). The ways in which we understand ourselves, our worlds, and our places in them are strongly conditioned by the inherent cultural assumptions we bring to bear upon them: "Implicit deixis [...] is the result of pedagogy

from the minute we are born into the community and gradually changes as a culture adjusts along its historical trajectory” (p. 49; a perspective that resonates with, for example, Bourdieu’s idea of *habitus* and social fields). An act of communication is an act of *indication* for-another both within and of a mutually constituting space of relations. *Indication* is the intrasubjective enactment of that space of relations—a space which mutually defines the interactants themselves in that enactment as confluence.

The Subject, in this sense, as dynamically co-constituted in the *representative* dimension, is both what is *indicated* and what is enacted in *communication*, thereby mutually constituting all of the actors contributing to such enactment (actively or passively, as indicator, indicated, or indicated-for at any given moment). A Subject, thus, is not a ‘thing’ that can always be neatly categorized or identified. As an emergent ‘collective effervescence’ (a term from Durkheim, 1995; *op cite* Appadurai, 2016), a Subject can be nominalized as an ‘ideology’, a ‘culture’, a ‘discipline’, or some other distinct prescriptive and proscriptive set of attitudes and beliefs. But that identity is an illusion of language and other symbolic processes. This is not a problem (except when reified and ignored), nor is it in any way unique to the Subject function/dimension. Every process of ‘thing-ification’ is subject to the limitations of perception and the scale of those perceptions. Where ‘you’ end and the chair you are sitting on, or the room you are sitting in, begins is not a solid line but a liminal zone that disappears when the scale of human perception is exceeded (regardless of the direction of that shift in scale). The Subject function, like everything else, is a dynamic process held together only by the relations it enacts. And those relations themselves are often rhetorical creations, enactments, and nominalizations. The Subject is, thus, not a ‘con-text’ but an intersubjectively and *intrasubjectively* constituted space *representative* of the relations according to which such acts are themselves made possible and recognized as

meaningful. The Subject, then, as space of relations, is a symbolic phenomenon in the sense that *representational* information *for* interaction is ‘coded’ as or according to ‘rules’ of an ‘order of interaction’—and it is in precisely this sense that the *representative* dimension is the dimension of *ethos*: credibility, legitimacy, authenticity, normativity, etc., are relative to the dominant space or territory of *representative* relations by which identity (and, hence, authority) is authenticated (or not) in interaction. This process is thus both syntactical, as ‘structuring’, and metaphorical, as ‘symbolic’.

4.3.3 Indication, Representation, & Territorialization: The Intentional & the Motivated Actor

The interactional processes described to this point as aspects of *representation* and *indication* are *intentional* processes that do not necessarily require the participation of a conscious or *motivated* actor. If a ‘logic’ is the pragmatics of an *episteme* (‘embodied’ in an Agent), the ‘rules’ of the ‘interaction order’ comprising the Subject are ‘algorithmic’ processes (i.e. ‘agencies’) that instantiate the entelechial tendencies that serve to define the spacetime of relations (or ‘assemblage’). Thus people can function as *intentional* agents: no conscious (e.g., affective, social, relational) awareness is necessarily required to follow the rules once the rules are accepted as a normative pattern of interactional order. Decisions are made from within—or, better, as Shotter explained at the beginning of this section, by ‘acting *into*’—the space of normative relations (defined as and by the capacities and tendencies of the assemblage, including normativizing ideological structures). It is in precisely this sense that computer technologies and non-conscious life forms, for example, can function as actors: as *intentional* agents contributing to the enactment of spaces of relations within specifically delimited parameters. Unlike

motivated actors, *intentional* agents cannot push the limits of possibility because their range of action is defined by the space of possibility (defined by capacities and tendencies of action) of the assemblage that in turn constitutes and defines them (i.e., for which they are ‘agents’): as above, the GPS device cannot decide to do or be something else. *Intentional* actors and agents, therefore, function as Agents by re-presenting the Subject: Agents exist in and as the (indication of) *intentions-of* the Subject. *Intentional* actors and agents, thereby, ‘have agency’ only within the defining bounds (i.e., the defining tendencies and capacities) of their constitutive Subject. This might be understood merely as saying that the program cannot exceed its programming, but without denying the program (or other nonhuman assemblage) its effective agency (as the power to affect and be affected) within that territory of action as a space of possibility.

It is here that the difference between *indication* and indexicality can be re(-)solved: indexicality (as *motivated* indication) and the semantic *information-about* that it indicates (as *indication-for another*) are always affective, hence the characterization of the *expressive* in terms of the dimension of *pathos*. The *expression* of a Person, as a *motivated* actor, is indicative (for-another) of the Subject(s) with which she is identifying or identified. The *expression* of an *intentional* actor is indicative-of the constitutive Subject, but the GPS system has no true deictic origo, no “I.” (And neither does Siri, no matter what she says.) The deictic expressions it makes use of are iconic-metonymic re-presentations of the information-for its use as mediational means. In contrast, the *expression* of a Person, as semantic *information-about*, indexes both the person as Person and her intentions-for another, shaped by the relevant co-constitutive Subject as relational space of representation. It is in this sense that the *expressive* is synechdochic, indicating the part/whole relation of (*motivated*) Person and (*motivating*) Subject *as well as* of (*affective*) person and (*affecting*) co-constitutive assemblage, which includes other co-

constitutive persons. The difference of the *motivated* actor (or Person, paradigmatically, but by no means exclusively, the conscious human being) was previously defined as the capacity to choose (to at least some extent, from recognized available options) the spaces of relations within which or into which she will act, and thereby the capacity to choose (within perceptual and cognitive limits) not only how ‘information’ is recognized and interpreted (within conceptual limits) but how it is comprehended and evaluated.¹⁶⁸ (Emphasizing the *process* of communication as interaction—and the *kairotic* character of ‘beginnings’ and ‘endings’—this series of actions can be understood as a cycle in which ‘evaluation’ is taken to be a second-order form of ‘recognition’: ‘recognition’, whether perceptual or conceptual, requires a governing space of relations, i.e. a syntax or symbolic, by which meaning is both made possible and within and against which it is *evaluated*, i.e. recognized as relevant, meaningful, and of value, or not.) *Motivated* agency thus involves the capacity to choose, and to some extent construct (though not *ex nihilo*), an ethical stance and a moral position (i.e., an *ethos*), which may be as unique and dynamic as the Person’s constitutive combination of defining Subjects (each of which represents and defines an ‘*ethos*’, as syntactical-symbolic ‘information-for’, in its own right).

Thus a metaphor develops of complex spacetimes as continuously intrasubjectively enacted territories *of* interaction and *in* interaction. Like other spatial metaphors of communication (e.g., ‘networks’), ‘territory’ is, of course, also a form of the CONTAINER metaphor: there is, by definition, an inside and an outside to a territory. But (despite the human mapping compulsion—a symptom of the need for re-presentation and the desire for the

¹⁶⁸ The three ‘modes’ of signification being, as above, (syntactical, symbolical, and metaphorical) recognition, (semantic, indexical, and synecdochical) comprehension, and (pragmatical, iconical, and metonymical) evaluation

reassuring certainty of representation) territorial boundaries are typically fuzzy, fluid, and dynamic; many different territories, physical and psychological, informational, and geographical, commonly overlap, intermingle, and evolve in interaction. Territories and their boundaries are not static, solid, or simple. SPACE AS TERRITORY is a metaphor based in an understanding of space as enacted—a territory ‘belongs to’ someone or something and is understood (i.e., *represented, re-presented, presented*) *not to* belong to someone(s) or something(s) else. This social, dynamic, and *active* aspect of the TERRITORY metaphor addresses the complexities of communication and interaction by accepting the multiple layers of potential ‘connection’ or ‘resistance’.

A range of generative conceptualizations of communication and information spaces as territories have recently been proposed, including Lemos's (2011) “informational territories” and Brighenti's (2011) exploration of “territoriality” (derived from Deleuze & Guattari, 1987; see also Brighenti, 2010). Space as ‘territory’ is related to space as ‘sphere’, but one ‘territory’ implies competing claims, while ‘spheres’ are usually discussed in monadic or binary terms, even if relations to other ‘spheres’ are assumed (e.g., ‘public’ and ‘private’ spheres). Such interminglings are also discussed by Morely (2000), for example, as “invasions” of informational space. But a suitably complex understanding of interactional spaces as territories understands transgression and resistance—like positive and negative epideictic—as an important part of continuous processes (e.g., deterritorialization, reterritorialization, and territorialization) that happen at many levels of interaction concurrently—e.g., many different kinds of ‘nodes’, many different kinds of ‘links’, at many different scales or layers (or in Deleuzian terms, in and as ‘lines of flight’ across different ‘strata’) of interaction. A territory is engendered, maintained, and dissolved in a series of motivated and intentional acts and interactions (or confluence of intra-

actions), beyond the uncritically assumed act of observation and interpretation from the outside. Territorialization is a process of *identification*, a relational (self- and other-, subject- and object-) locating act.

4.3.4 **Expression, Indication, and Gesture**

Communication as interaction, then, involves the *expressive indication* of a dynamic territory of inter/intrasubjective *representation*. While the *indicative* act (i.e., communication) of the *intentional* agent has an *expressive* dimension to the extent that such action indicates (as representation of the possibilities of action within) the relevant *representative* relations co-constitutive of itself and its interactants (*motivated* or *intentional*), the *indicative* act of the *motivated* actor also and necessarily *expresses* (as *indication* as [re]presentation of *intention for-another*) a self-identification with the space of relations she is acting ‘into’ and which motivates her action and presents an indicated meaning (to be comprehended according to a preferred/intended/indicated interpretation). The *motivated* actor chooses and expresses the territory of meaning (i.e. space of relations, Subject) by which she intends her actions to be interpreted and comprehended. Those intentions are expressed, most obviously, in what we will broadly call ‘gesture’:

this feature of all living expressions—of ‘pointing beyond themselves’, so to speak, to *a larger situation within which they now, or will in the future, make sense*, i.e., of them as having *intentionality* in being directed toward something beyond themselves—is an intrinsic aspect of all human action in its inseparable relational embedding in a larger flow of ongoing activity. Thus the meanings of our actions cannot be assessed in and of themselves; they ramify out into the whole context within which they take place.
(Shotter, 2012. p. 138)

Such expression is, thus, necessarily rhetorical: an attempt to influence the dynamic, relational confluence by evoking a territory of identifying and consubstantiating relations. Thus, the *expressive* is the affective dimension of deixis, epideixis, and the *phatic*, which are fundamental to all human (or, more precisely, *motivated*) communication as both semiotically coded semantic information and nonrepresentational affective influence in confluence. Every act of human communication has an *indicative* dimension – relevance for another or others enacted by an Agent – just as it has an *expressive* dimension located in a relational ‘self’ or Person. What *indication* indicates is relevance within a space of relations, and, in that way, the Agent enacts the Subject in the *expression* and mediation of Persons. In linguistic and pragmatic terms, this *indicative* function is understood in terms of deixis. The *indicative*, however, runs far deeper than language. According to Garfinkel, for example,

the body orients itself in space, social space and physical space, and then it works to orient objects and perceptions in that space so that the space is coherent in socially recognizable ways. (Rawls, 2002, p. 32)

This is to say, following Ruthrof, that the generation and propagation of a territory of representation in *motivated* interaction “is not primarily a verbal phenomenon but a[n *indicated*] nonverbal constraint on the manner in which we are to envisage designated objects of thought” (Ruthrof, 2000, p. 52). We are socially disciplined, shaped by the assumptions, values, and categorizations of our cultures—the spaces of relations into which we are born, those with which we come into contact, and those with which we choose to identify—not only by symbolic and verbal indoctrination but fundamentally by nonverbal and pre-symbolic ways of being in the world, ways of interacting with others, ways of enacting and performing ourselves for ourselves and others in accordance with the territory of representation enacted (i.e., *indicated*) by and in our interactions. The Subject as a space of relations, enacted through the push and pull of

intersubjective *expressions* of Persons who are simultaneously constituted by those Subjects as constitutive (*representative*) relations, are enacted in the *indication* of Agents, which are similarly constituted and delimited by the bounds of the dynamic territories of the relevant Subjects. Or, in Shotter's terms,

what we do is 'shaped' just as much by the social context 'into' which we must fit our actions, as any inner plans or desires from 'out of' which we act. So, although participants may respond to each other in a 'fitting' manner, to the extent that they influence each other's actions in a moment-by-moment fashion, its nature is intrinsically unpredictable, indeterminate, and creative: it is an entirely unique and novel outcome, related to its circumstances, but unintended by any one of the individual participants involved. So, although they react and respond to each other in a meaningful way, none of them can have a complete reflective grasp on the meaning of their activities – they only 'show' it in how they perform them. (Shotter, 1997, p. 473)

Thus,

Our ways of talking about our experiences work, not primarily to represent the nature of those experiences in themselves, but to represent them in such a way as to constitute and sustain one or another kind of social order. (Gergen, 2009, p. 90)

This is interaction as dynamic rhetorical performance—performance and mediation of 'self' for-another(s) into an intended territory of meaning. Such action cannot be fully accounted for by the verbal or even the symbolic-representational:

You will certainly import into any situation a set of preferred performances. They don't represent 'will power', so much as a set of relationally established trajectories. And they can be enormously important when injected into a given confluence. Consider the power that even a single word or phrase may have in a given context: 'You are fired', 'I quit', or 'we are finished'. The same holds true of one's movements: a raised fist, a derisive laugh, an embrace. Even one's physical presence may alter the confluence. Depending on the circumstances, simply standing there as an observer, a demonstrator, or a mourner may

all change the definition of the situation. And we must also consider the objects that are present. A vase of flowers, a menorah, a dog, a weapon on the wall ... all are subtle means of shifting the potentials of the situation. To be sure it may be useful to distinguish between constituents of a confluence that are central to its form as opposed to peripheral. But people can also be enormously flexible and creative in sustaining a given definition of the situation as various people, objects, and actions shift over time. (Gergen, 2009, p. 56-57)

Communication as interaction, as rhetorical performance intended to influence the intra-active confluence, involves *presenting* a sharable *re-presentation* of a territory of *representation* by which meaning can be recognized, interpreted, and comprehended. Such action is indexical (in the presentation of a self for-another), iconic (in the re-presentation of a territory of meaning), and symbolic (defined and made meaningful within, by, and in relation to that intended, constitutive space of representation). While all *expression* must be ‘structured’ if it is to ‘carry’ meaning, communication is more than symbolic, more than verbal; communication as interaction cannot be encompassed in ‘language’. This is obvious even in the gestural character of mundane speech: “we ‘show’ the ‘movement’ of our minds (so to speak), in the pitch, pacing, pausing, and intonation of our speech” (Shotter, 1997, p. 490). In gestures,

like facial expressions, like smiles or frowns, like exclamations of delight or outbursts of dismay, our utterances “point outside [themselves] to a reality beyond” (*op cite* Wittgenstein 1981: no. 236), either like an indicatory finger, pointing to an important “this” in a shared situation, or, like a Marcel Marceau mime – in which he gives visible shape to an invisible colossus in his mimetic attempts to surmount it. (Shotter, 2011, p. 41)

The various representational ‘structures’ (i.e., Subjects as territories of meaning), enacted and actively reproduced in interaction with others, set parameters and limitations upon the actor’s possibilities of action—as well as disciplining normative limitations on conceptualization

(and thus defining expectations and assumptions in recognition, interpretation, and comprehension). But those limits are not absolute and exist in a constant flux of ideological contestation and negotiation (among Subjects and their Agents, often as *expressions* of Persons). Each motivated actor, as Person, has a choice of Subjects, instantiated as ‘frames’, ideological positions, or cultural perspectives *inter alia*—and thus of the identities they instantiate and perform—which can and do shift and change in response to present conditions and relations (as well as to dynamic interpretations and re-interpretations of past conditions and to shifting expectations of future conditions). We can compare this, for example, with Bakhtin’s insistence that the ‘utterance’ (as the basic act of communication) is to be understood as both inherently expressive (of individual style and emotion) and an inherently social, addressed, dialogical phenomenon: utterances are intertextual—“they are aware of and mutually reflect one another” (1986, p. 91).¹⁶⁹ Of course, for Bakhtin, the literary theorist, as well as the speech acts theorists with whom he shares much, the ‘utterance’ is fundamentally a linguistic (i.e., ‘speech’) act (though Bakhtin recognizes that the utterance exceeds ‘speech’). But to confine the act of communication within the bounds of language is, again, to privilege the set of structural relations (i.e. the Subject) and to conflate the act of communication with the interpretation or understanding of that act because interpretation is possible only within the hermeneutic circle of the subjectifying and contextualizing Subject itself. Bakhtin and Vološinov, rightly insisting upon the interactional character of communication, address this problem of structuration with

¹⁶⁹ In Deleuze & Guattari’s (1987, p. 80) terms—in a passage where they discuss Bakhtin (really Vološinov, but consistent with Bakhtin) and also allude to Malinowski (and his definition of the phatic which they gloss as “‘free’ indirect discourse”): “enunciation in itself implies *collective assemblages* [...] it is the assemblage, as it freely appears in this discourse, that explains all the voices present in a single voice [...]”

Bakhtin's theory of "speech genres," which are structures of interaction, structures of social practice. But, as with accounts of the "speech act," privileging the "speech genre" (even when such genres can be taken to encompass the nonverbal) privileges the structure of interaction—and thus *representation* and assumed recognition over *re-presentation* (conflating that recognition with intended interpretation) and the (re)presentation for-another indicating the requirements for comprehension.¹⁷⁰

Every act of human communication is an *expression* for-another (even, again, if that 'other' is a 'me' to an 'I') enacting a shared territory of meaning (as a space of material relations). This is consistent with Bakhtin's understanding of the 'utterance' as inevitably intertextual—the 'texts' in this sense being not simply discrete products of discourse in "speech genres" (e.g., a novel, a newspaper article, a conversation), but the spaces of representation themselves understood as 'situated' territories of *representative* relations. Intertextuality, in fact, by recognizing relations between acts of communication widely separate in both space and time, points beyond 'structure' as spatial relations and towards the temporal dynamics and rhythms of relation and interaction over time.

4.3.5 Rhythms of Interaction: The Temporal Dynamics of Motivation to Intention

This final section is the most speculative of the entire project, and I must therefore beg some indulgence. Much more work and thought is required to better grasp the notion of time—

¹⁷⁰ Thus compare Lash's (2002, p. 71; *op cite* Hoskins, 2004) assertion that "The mass media and new media are instead media of not representation but of *presentation*. Once you [...] reflected on the medium of representation. But the newer media of presentation come to you. They turn up in your house and present themselves [...] in real time"; as well as Grusin's (2010) notion of 'premediation'.

and much more work is required before even a suitable and appropriate bibliography or relevant literature review of the study of time could be offered with any confidence. But it cannot be set aside or ignored; as Hodge & Kress have pointed out:

time, the diachronic dimension, is never irrelevant to semiotic analysis. Time may move too fast or too slow to be easily seen or incorporated into the terms of analysis, but time is always relevant to interpretation, and to ignore it always involves distortion. (Hodge & Kress, 1988, p. 182)

The entire foregoing argument of this dissertation is anchored in the slogan ‘there is no space’, meaning merely that ‘space’ is not a ‘thing-in-itself’ but the recognition of relations. Understanding communication as interaction, then, involves paying attention to what Pennycook & Otsuji (2015) call “*spatial repertoires*” in which “the relationships between individual and spatial resources [...] converge and diverge in producing place” (p. 83), by means of what Massey (2005, p. 140) calls the “throwntogetherness” of spatial and semiotic resources: “Social interaction is not merely a collision of individual trajectories but the spatial organization of semiotic resources and the semiotic organization of space” (Pennycook & Otsuji, 2015, p. 85). If we broaden the concept of ‘space’ to encompass the recognition, interpretation, and comprehension of any set of such relations, ‘time’ becomes the recognition of changes in those relations.¹⁷¹ Thus, each space of relations has its own constitutive rhythms (or temporal relations; see, e.g., Lefebvre, 2004)—and the interactions of resonant and dissonant rhythms of competing territories of representation have important implications for the understanding and practice of communication in a historical moment characterized by a multiplicity of ‘spaces’: maybe time isn’t ‘speeding up’ in our globalized historical moment, but our technological access to and

¹⁷¹ This is true even of ‘clock time’ as now measured by the decay of cesium atoms: radioactive decay is a material phenomenon, a change in physical relations.

sustained simultaneous involvement in many more spacetimes of interaction generate polyrhythms far more complex than we are able to easily grasp, and the number of ‘notes’ or ‘beats’ of overlapping ‘songs’ is misinterpreted as an increase in overall ‘tempo’. Although the subject of time offers a wide range of applicable and relevant resources, including for example Virilio’s thought on acceleration (1991a, 1991b, 2007), DeLanda’s work on temporal scales (1997, 2006), and Bakhtin’s concept of the chronotope (1982; see also, e.g., Bemong, et al, 2010; Blommaert, 2015), what follows is mostly intuition supported primarily by the work of John Shotter in order to foreground the emphasis on interaction. I will argue (speculate) that the constitutive rhythms of our multiple, simultaneously enacted spacetimes can be recognized, interpreted, and comprehended in the relation (and movement) between motivation and intention.

4.3.5.1 The Problem of Time

The challenge of time has been made much more difficult by the historical emphasis on representation, which, as argued above, is almost necessarily static. However, “If real human action is to be possible,” Shotter insists,

the world cannot have an eternally fixed character, it must be a world that can be developed in a direction ‘pointing’ from a certain past, through the moment of action in the present, to a more or less uncertain future – with it being really possible at the present time for the world to be developed in any one of a number of different possible ways in the future by the actions of agents. (Shotter, 1975, p. 108)

Indeed,

if we are to take the reality of time seriously, there can be no logic of [...] structure-at-an-instant, for there are in nature no instantaneous activities, and hence no solely spatial organizations existing only at a timeless moment. *All spatial relations must also stretch across or through time.* Thus [...] an organised flow is best seen as situated, not in

“space” *and* “time”—thought of as separate containers for “position” and “motion” respectively—but as existing in regions or moments of “time-space.” Where the distances between its separate regions are not wholly spatial (for all activities must take some time to execute), nor those between its moments wholly temporal (for all activities must occupy some space). (Shotter, 1983, p. 23)

The problem has not gone unnoticed: Deleuze and Guattari (1987), for example, consciously play with the fact that the French word *sens* refers to both ‘meaning’ and ‘direction’ (‘direction’ implying movement, i.e., change in relations, implying time)—a dual meaning that obviously evokes *indication* and indexicality; thus, in translation, as quoted above, the assemblage “is the passional regime of feeling and its resistances, a direction (*sens*, also ‘meaning’) to form and its developments, an economy of force and its displacements, an entire gravity” (p. 399-400). Relations—spatial, conceptual, social, etc.—and thus ‘meaning’, are always dynamic to some degree, which can be accounted for at various temporal scales. As Einstein famously explained, even to perceive something as motionless (as in ‘stasis’) is to perceive it as motionless *relative to something else*, usually one’s (inherently dynamic) self. What I am arguing is that relativity is not limited to physical (traditionally ‘material’) relations. Maybe,

instead of spatializing time—thus to make it measurable as clock-time—we need to dynamize the spaces within which we live as able to exert a *form-shaping*, agentive influence upon us while inhabiting its different regions and moments. We thus find ourselves as having to make our way forward within both a complicated and initially indeterminate space of possibilities. (Shotter, 2013, p. 143)

Our perceptions—and thence our conceptions—are constantly changing, are irreparably dynamic: “Time is not an absolute quality in memory; it is an ordering of people, places, things, and events. There are no calendars in the brain” (Rosenfield, 1988, p. 162). As Alfred Schutz

recognized (drawing from Bergson and Husserl), the problem of subjective meaning is “closely related to the phenomenon of the lived experience of time” (1967, p. xxxi). “[E]ven a superficial examination,” he argues,

makes it clear that *the problem of meaning is a time problem*—not a problem of physical time, which is divisible and measurable, but a problem of historical time. The latter is always a passage of time, filled, to be sure, with physical events yet having the nature of an “internal time consciousness,” a consciousness of one’s own duration. It is within this duration that the meaning of a person’s experience is constituted for him as he lives through the experience. Here and only here, in the deepest stratum of experience that is accessible to reflection, is to be found the ultimate source of the phenomena of “meaning” (*Sinn*) and “understanding” (*Verstehen*). (Schutz. 1967, p. 12)

Schutz assumes that this “historical time,” understood as “a consciousness of one’s own duration,” is a single, unified experience of temporality centered on the phenomenological deictic origo of the self in the same way (and for the same reason) that self is the center of spatial experience. If, however, the ‘self’ is understood as a nexus of territories of meaning (i.e., a Person), this phenomenological “historical” time becomes as complex and multiplicitous as the notion of space. Cognition is a spatiotemporally dynamic process built upon the dynamic, constitutive relations of communication through modes of perception, reception, and interaction: interaction enacts territories of meaning—*indicates* spaces of *representative* relations—and such enactment is necessarily *dynamic*, not only spatial but necessarily *spatio-temporal*:

We stand each moment at a precious juncture, gathering our pasts, thrusting them forward, and in the conjunction creating the future. As we speak together now, so do we give shape to the future world. We may maintain tradition; but we are also free to innovate and transform. (Gergen, 2009, p. 49)

As Shotter explains, this temporal dynamic is basic to all communication, even the mundane production of speech, which we can now understand to be not merely a process of

representation, but (also and simultaneously) of iconic re-presentation and indexical presentation (or, in Shotter's terms, "specification"):

a sentence represents, at every moment in the course of its production, a content already specified to a degree, but that content also specifies the possible further specification which may then be introduced into it. In other words, it presents at any one moment, as an aspect of its duality of structure [i.e., retrospectively structured and prospectively structuring], both its *meaning* so far, as well as the *means* for its own continuation. In this sense, the production of a sentence is hardly different in character from the growth of a plant. And it will often be useful to bear this image in mind: for the relation of, say, a person's intention of saying something to their saying it, is much more like the relation of seed to plant, than that suggested by the currently more popular image of a script to its performance. For rather than being the outer expression of something already specified internally, the expression of an intention is, as a process of temporal unfolding, a passage from an indeterminate to a more well-articulated state of affairs. In such a passage something is formed, or perhaps better, forming occurs; momentary 'product forms' are continuously created in the flow of activity in question. (Shotter, 1983, p. 29)

Thus 'language' is not merely a static symbolic-syntactical structure of representation, though the *writing* of language—as re-presentation—can present itself as such. Once again, Shotter articulates the problem perceptively:

In the past, we have tried to make sense of movement and change within a framework of "dead", mechanistic things. Within such a framework, all movements and changes are simply either (1) what might be called *configural* changes, i.e., changes of rearrangement among a constant set of self-contained components, or (2) *locomotive* movements, i.e., changes of place or position in space—in which an entity's spatial coordinates at separate instants in time are recorded, and their *transitional movements* are ignored. But the kind of movements and changes *expressed* by living, growing, and developing beings are of quite a different kind. [...A]t any one moment in time, [they] owe not just their character, but their very existence both to one another and to their dynamic relations with the "parts" of the system at some earlier point in time—thus, their directional history, i.e.,

what happens in the transitions, is just as important as the “logic” of their relations in their growth.

Further, it is important to note that there is always a kind of *developmental continuity* involved in the unfolding of all such living activities, such that *earlier phases of the activity are indicative* of at least the *style* of what is to come later. In other words, all living activities, it seems, give rise to what we might call *identity preserving* changes or deformations—but “identity” here means, an incomplete, still growing thing, a thing with potentials. [...] Thus, what is special about all living expression, is that it is *developmentally oriented*. [...] It is aimed at bringing something new into existence which has never existed before, something absolutely new and unrepeatable, something of significance *just in the current circumstances of its expression*. Hence, it is in *the speaking of our words*, not in what is *said* as a result of their utterance, that our intended meanings are to be found. [...] What our speakings lose when they are studied outside of their original surroundings—when they are severed from the relations determining the “time-contours” of their utterance, i.e., from the unfolding interplay of our timing and intoning of them in precise responsive relation to both a listener’s receptive expressions and the rest of our circumstances—is not what our words mean in some general sense, but what specifically we meant *within those surroundings* in saying them. In other words, our intended meanings are not to be found in the *patterning* of our *already spoken words*, but only within the *unfolding moments of their speaking* in the (invisible) anticipations they arouse in those who are recipients of them. (Shotter, 2013, p. 144-145)

The gesture theory of communication connects the *expression* of the Person with the active *indication* of the Agent through the relational and *representative* ‘space of possibilities’ that defines the particular (material, ideological, social) assemblage as Subject in such a way that *motivational* forces are said to bind Person to Subject, and intentional forces to bind Agent to Subject in (inter- and intra-)action: identities, generated in social relations, are *motivational* (the *expression* of relation shaped by the capacities and tendencies of the identifying, thus ‘subjectifying’, territory of meaning), but the dynamic enactment of those identities is *intentional*

(the indication—*for-another*—of that relevant territory of meaning as a space of possibility for action). “The future is always already imbricated in our ‘present’— [...] our now always bears the impression of what is to come” (Trapani, 2009, p. 325). Thus,

what is important [...] is not so much what we think of ourselves as seeing [presented and re-presented in interaction], but its possible consequences, i.e., how in fact we would be prepared to act in relation to such a ‘reality’. (Shotter, 1997, p. 490)

The process of interaction as intra-action is the dynamic attunement, as influence within confluence, or in Burke’s terms the ‘alignment of motives’ with the (by definition, rhetorical) goal of aligning intentions. Thus, “For us to truly understand a person’s utterances in a practical manner,” Shotter argues,

we must go beyond them as *partial* or *preparatory* performances and ask ourselves in what *actual* world could they be fully performed. In other words, *our actions can only come fully to fruition within socially shared practices that can continue to be articulated and developed over time; to intend an action is to intend a practical world within which actions of that kind can be achieved—no corresponding world, no achievement.* (Shotter, 2012. p. 139)

The Subject, generated in the interaction (intra-action) of actors and agents, *motivates* action in representing the space of possibilities for action—the parameters of *intention* that instantiate the Agent of each Subject that is available to the Person for action. Being dynamic, interactional processes are necessarily both spatial and temporal. Time can be—and usually is—understood in terms of space, e.g., as a ‘time line’, but this spatialization of time entails that change is mere configural rearrangement of pre-existing parts and, hence, determinative: ‘emergence’ is conceptualized only retrospectively; it is not (and, by definition, cannot be) accounted for prospectively, though *all action is prospectively oriented* (i.e., toward intention). “Time is not a line but a network of intentionalities” (Merleau-Ponty, 2002, p. 484). If we understand

communication (as interaction) in terms of the relation between motivation and intention, we may be better able to account for the dynamics of relations not only among actors and agents, but among the spaces of possibility (as territories of meaning) that motivate interacting sets of actions toward intentions.

Take the saying ‘time is money’ as an illustrative analogy. Remembering McLuhan’s discussion of money as the ultimate medium, we can understand money to be a mediational means capable of reducing all things to a common scale of value. This can be incredibly useful. But most of us would also agree that many things in life cannot be productively or usefully reduced to monetary value—nor *should* they be (to argue to the contrary is to indicate, i.e. represent, a privileged ideological position, within a particular space of representation, that betrays a particular set of motives justifying a particular range of intentions). Similarly, clock time is a mediational means that reduces all phenomena to a very useful common scale. But not all dynamic phenomena can be usefully or productively reduced to clock time, which, among other things, privileges a very narrow range of dynamic interaction susceptible to and accountable by human modes of perception, reception, and interaction. First, territories of meaning, as material formations, are not limited to and may not be encompassable by or accountable within such a narrow scale. Second, the constitutive rhythms of a particular space of relations need not align or be resonant or in phase with the standard meter of clock time.

Gibson, for example, argues that

Time is not another dimension of space, a fourth dimension, as modern physics assumes for reasons of mathematical convenience. The reality underlying the dimension of time is the sequential order of events, and the reality underlying the dimensions of space is the adjacent order of objects or surface parts. Sequential order is not comparable to adjacent order; it is not even analogous to adjacent order. For the order of events cannot be permuted, whereas the order of parts can. You can reshuffle the parts but not the events,

as you can rearrange the furniture in a room but not the happenings that occur in it. (Gibson, 1979, p. 101)

Similarly, Goody argues that clock time

and “scientific” time and the absolute time of Newton or providence *do not* provide the framework for an eternal universe in which we, mortals, briefly and helplessly live. These humanly imagined forms of time are not absolute or primary. They are derivations, abstractions, perceptions, language forms *of our own creating*. They are secondary “studies in transcendental technique” made possible by the primary, pre-existing, private time which the nervous system subserves. It is in our own personal time, derived from the dynamics of nervous activity, that we ever, for a moment, miraculously are able to weld the immensities of random unknowing matter into life. (Goody, 1988, p. 26)

Accounting for the spatiotemporal dynamics of interaction of and within multiple simultaneous territories of meaning (interactively integrated, as Goody reminds us, in modes of individual, cognitive and neurophysiological perception and reception) requires stepping beyond the bounds of clock time as a disciplining mediational means or universal currency, and beyond the uncritical representation (and re-presentation and presentation) of sequential order as spatial order.

4.3.5.2 Ancient Aspects of Time: Chronos & Kairos

The ancient Greeks recognized two aspects of time that can help us to step out of the conceptual constraints of clock time. Smith (1969) described these two forms of time as *chronos*, or (non-phenomenological) historical ‘time’, and *kairos*, the ‘*right time*’. *Kairos*, of course, has been discussed above in relation to rhetoric. The idea of different formations of time relative to different activities with different rhythms and speeds is illustrated nicely by Tim Ingold:

For the wayfarer [...] speed is not an issue. It makes no more sense to ask about the speed of wayfaring than it does to ask about the speed of life. What matters is not how fast one moves, in terms of the ratio of distance to elapsed time, but that this movement should be in phase with, or attuned to, the movements of other phenomena of the inhabited world. The question ‘How long does it take?’ only becomes relevant when the duration of a journey is measured out towards a predetermined destination. Once however the dynamics of movement have been reduced, as in destination-oriented transport, to the mechanics of locomotion, the speed of travel arises as a key concern. The traveller whose business of life is conducted at successive stopping-off points wants to spend his time *in* places, not *between* them. (Ingold, 2007, p. 101)

‘Time’ is relative to active intention (much like Floridi earlier showed ‘food’ to be relative to the ‘feeder’), and this recognition of points or ‘places’ in space relative to active intention allows an analogous recognition of relative ‘points’ or moments in time: “continuity is in terms of the present” (Rosenfield, 1988, p. 77). But the analogy also, again, highlights the problem with the spatialization of time. In ‘space’, ‘distance’ is a function of the Subject—it is a *representation* and re-presentation: ‘space’ does not ‘contain’ distances; rather, the quantification of distance is what generates and instantiates (i.e., re-presents) ‘space’. Physical distance (length, width, etc.) is measureable because human beings have devised standard measures (though different groups of people have always had different standards). Non-physical/geographical spaces are not quantifiable by physical parameters (except metaphorically, or in current terms, iconically)—hence the resistance to labeling them ‘spaces’ at all. The same problem exists with time when we recognize multiple spacetimes of relation. Echoing Stawarska’s (2009) previously cited point about the inadequacy of the extra-spatial character of the space-defining phenomenological origo, Shotter argues,

Temporal processes cannot be made up from parts themselves devoid of temporality. Truly temporal processes are *continuous* or *indivisible* in the sense that, the very

processes of differentiating them into phases of *before* and *after* serves, not to separate them into a “patchwork of disjointed parts” as Dewey ([1948/]1896) put it, but on the contrary, to relate their phases as aspects of the same dynamic unity. It is a unity which is perceived as a unity, not in spite of its novelty in every moment, but because of it; for while clearly changing in one sense, like a swirl or eddy in a stream it remains recognizable in another sense as continually the same. (Shotter, 1983, p. 21)

Rhythm is a unifying, centripetal force. And this unity of time in ‘cosmic’ rhythm is what the ancient Greeks called *chronos*, the time of the ‘cosmic system’. *Chronos* can be contrasted with *kairos* as the ‘opportune moment’. If each Subject as a territory of meaning represents not only a set of identifying relations but, necessarily, a temporal pattern or a constitutive and identifying rhythm, we can use *chronos* as a term for that overall pattern and *kairos* for the ‘beats’, so to speak, as experienced—as recognized, interpreted, and comprehended: *chronos* is the time of the Subject (and, thus, the Agent), *kairos* the living ‘now’, the time of the Person. *Chronos*, as the temporal pattern of the Subject, is orienting, (serially and sequentially) quantifiable, both *synchronic* and *diachronic*, temporal and indicated ‘context’ for enacted and indicating ‘texts’. *Chronos* defines relevance. It is history and memory, *mythos* and narrative, and the enacted relation of *ethos* in *logos*. *Kairos*, as the temporal enactment of the Person, is alerting and oriented, qualitative, indicative(-for) of the relevant moment, temporal ‘text’ to orienting ‘context’. *Chronos* is the temporal equivalent of ‘space’, *kairos* of ‘place’.¹⁷² Thus, the rhetorical, interactional implementation of *kairos* is indicative of an *ethos*—a territory of meaning as a spacetime (*chronos*) of motivation.

¹⁷² “[P]lace is a particular articulation of those relations, a particular moment in those networks of social and relational understandings” (Massey, 1994, p. 5).

Chronos, as the spacetime of the Subject and mediational mean(ing)s, generates and instantiates *motivations* as the capacities *for* action that shape tendencies *of* action as possibilities *for* action as *intention*. Action (and meaning as enacted) represents a vector from *motivation* to *intention*. An entailment of this relation is that although *kairos* is oriented relative to *chronos*, *kairos* as enactment has the capacity to rhetorically, epideictically reorient intra-actants to a different *chronos* (as history, memory, *mythos*)—*kairos* enacts a (re)orientation to memory; *kairos* re-members. This has several implications for our understanding of communication and the interpretation of action given the multiple overlapping spacetimes—territories of meaning—available to each of us in inter- and intra-action. For example,

if this is the case, what we *say* are *the* reasons for our actions, and what in fact are the influences actually at work in ‘shaping’ them as we move forward with our lives are in fact two very different things—what we formulate and express in our ‘sayings’ are a small fraction [of] these influences. (Shotter, 2012. p. 139)

Accounting for communication involves accounting for not only the dominant Subject as ‘context’ but for the interactions among the various territories of meaning in play at any given moment. These interactions are not merely spatial, not solid and static, but are fluid and ‘in solution’, thus the relations among them must not merely be ‘mapped’ (or inscribed as in *geograph-y*) but must be accounted for ‘rhythmically’. An analogy may help: on the highway, speed is understood to be a critical factor—this is why states mandate ‘speed limits’. But the velocity of vehicles is not the real danger—it’s the *difference in velocities* between the vehicles and the surrounding environment, as well as among the vehicles themselves. If the general speed of traffic is 75 mph and most drivers are ‘keeping up with traffic’, it’s the person going 45 mph in the ‘fast’ lane who becomes dangerous. This relates to one of the common arguments about the

‘speed’ of globalized, digital society, and the root of its relation to the political. As Taylor and Saarinen formulate the problem,

If politics is the art of negotiation, speed is the death of the political. Negotiation takes time and time is precisely what we don’t have. The intelligent machines of today’s techno-military complex reduce time to separating action and reaction to seconds or split-seconds. In the instant, negotiation and deliberate decision become impossible. [The] speed [of technology] privileges certainty and assertion. When there is never enough time, it is necessary to make your point quickly and concisely. It is not possible to slow down long enough to allow time for uncertainty and questions. But when there is not enough time for uncertainty, certainty becomes destructive – of others and eventually ourselves. (Taylor & Saarinen, 1994, p. 17.9)

At this point, we can recognize the problem to be not of ‘speed’ but of the conflicting rhythms of different Subjects at the root of *intentional* action, as well as the dominance of technological *intention* (e.g., desire of the assemblage) over living *motivation*. Attention to the realities and relations among different territories of meaning ‘in solution’, including the differential constitutive rhythms of those different territories of meaning as *kairos* to *chronos*, may allow a better grasp of interaction at all levels, and better allow for attention to the different agencies (both *motivated* and *intentional*) in play at all levels of interaction.

4.4 Conclusion

insoluble connectivity [...] this focal process of co-action [...] human action within a relational confluence (Gergen, 2009, p. 31)

[My project] is not a search for the underlying codes governing and determining human behavior. Nor is it the same as, for example, [Raymond] Williams’ project describing a ‘structure of feeling’. It is not a description of experience, of what it felt like to live at a particular time and place. It is not a phenomenologically motivated attempt to capture a

context of experience or, as Foucault puts it, to grasp ‘a “whole society” in its “living reality”’. The position I have presented here is not concerned with how people experience daily reality but with how they live and act in ways over which they may have no control and about which they may be unaware, experientially as well as consciously. (Grossberg, 1992, p. 62)

At the present historical moment, our agency, our effective reach and power to act—to affect and be affected—is more than ever before, extended by the multitude of mediational means that partly define us as actors. Our mediational means function to define us because our ‘individual’ action—and the cognition that enables it—is itself a sociotechnological phenomenon—a gathering and intentional direction of intra-actional mediational means and mean(ing)s. Just as a set of defining *representative* social relations is a requirement for (i.e., constitutes) individual identity, individual cognition requires a defining set of cultural relations comprising a cultural memory system in which to arise and function: the word *cognition* is derived from the Latin *cognōscere*, from co- (together) gnosce (knowledge, as in *gnosis*). “Not only is thinking always social, culturally situated, and technologically mediated, but individual cognition requires symbiosis with cognitive collectivities and external memory systems to happen in the first place” (Lenoir in Rotman, 2008, p. xxvii). In the contemporary hybrid-mediated, digitally networked world of ‘constant connection’, the

“I” is porous, spilling out of itself, traversed by other “I”s networked to it, permeated by the collectives of other selves and avatars via apparatuses (mobile phone or email, ambient interactive devices, Web pages, apparatuses of surveillance, GPS systems) that form its techno-cultural environment and increasingly break down self-other boundaries thought previously to be uncrossable: what was private exfoliates (is blogged, Webcammed, posted) directly into the social at the same time the social is introjected into the interior of the self, making it “harder to say where the world stops and the person begins” (Clark, 2006, p. 1). (Rotman, 2008, p. 8)

In terms of the current argument, the *expression* of affective-discursive identification (of a Person) within an intrasubjective space of *representative* relations (Subject) is enacted in the *indication* of an Agent defined by the tendencies and capacities instantiated by the relevant Subject-ifying spacetime of relations as a dynamic territory of meaning. This enactment represents a functional temporal vector from motivated re/action towards entelechial intention. Motives, in this sense, are *expressive* ‘properties’ of Persons, but those ‘properties’ derive from Subjects: motives are *expressed* as the *push* of affective social identifications, e.g. ‘belief systems’, instantiated as more or less structured (i.e., consistent and mutually supporting) and more or less dynamic sets of expectations and assumptions. Intentions, on the other hand, are the *pull* of entelechial tendencies (which can be understood in relation to ‘positive affordances’) enacted by Agents but determined or ‘structured’ by the possibilities delimited by the relevant Subject (which can be understood in relation to ‘negative affordances’). An individual human being, therefore, is a *motivated* agent whose self-determination is contingent upon access to and the constraints of available Subjects with which she identifies or is identified in Burke’s terms of rhetorical identification.

However, for this very reason, an individual human being can also *function* as an intentional Agent for an encompassing collective actor (i.e., assemblage). In this sense, the Subject can motivate actions (*motivational* forces bind Person to Subject) that are parasitized and instrumentalized by intentional actors (*intentional* forces bind Agent to Subject) for purposes that may be beyond the control, understanding, or even awareness of the individual motivated agents so used. To reiterate one important example, corporations are not people; they are assemblages of people and many other things. They are *intentional*, but not *motivated*, actors. Every corporation has the same goal (i.e., intent): the maximization of returns. Corporations as

intentional assemblages manipulate *motivated* assemblages (i.e., people and groups of people) toward the entelechial completion of those *intentional* tendencies. Corporations are not ‘affective’ except as they are able to instrumentalize affective (i.e., *motivational*) forces toward the goal of the maximization of returns. While certain Subject-ifying *motivations* can push toward the pursuit of profit, profit itself is not a motive: profit is an intent. In this sense we are all ‘cogs’ in the machines we constitute—the ‘know-togethers’ whose ‘together-knowledge’ *indicates* and enacts those machines (in the cog-ignition of motivation and intention) as *expressions of representative* relations enacting territories of meaning, potential, and intent.

This chapter has sought to integrate the various terms, terminologies, and theoretical foundations into a metatheoretical orientation to communication anchored in the pre-symbolic concept of gesture as the communicative dimension of *indication*. The final chapter provides, if not a formal method, at least a series of applications of this metatheoretical orientation to a variety of forms of mediated interaction. The focus on mediated interaction is not intended to represent the erroneous distinction between the mediated and unmediated—for there can be no ‘unmediated’, just as there can be no ‘immaterial’, for the same reason that ‘there is no space’—but, quite the opposite, to present a theoretical account capable of accommodating all communicative interaction in dynamic, cogenerated spacetimes of inter- and intrasubjective relations—and reintegrating, for example, the descriptive and the interpretive.

5. APPLICATIONS—FROM POINTS & LINES TO SPACETIMES

5.1 In-forming the Confluence: No Points, Only Pointings

This dissertation began with a critique and extensive review of digital media studies—or, more specifically, with the field’s tendency to privilege the description of novelty at the expense of (or substituting for) understanding; its basic assumption that mediated communication is, by definition, of a different logical order than interaction in general; and, most importantly, its generally uncritical acceptance of ‘text’ as ‘data’ in service of those tendencies and assumptions. Studying ‘texts’, of course, offers the investigator several advantages compared with face to face or other ‘modes’ of interaction: it is already reduced and easily parsable (‘coded’) in a way that physical, face to face interaction, for example, is not; it tends to stand still—as ‘inscribed’—meaning that it can be ‘retrieved’ (which is what makes it ‘data’); and for that very reason, there is so very much of it around—more, in fact, than ever before. However, with a firmer grasp on communication and language, and the inter- and intra-relations among them, we can get a sense of how much squeezes through the investigator’s fingers when her ‘data’ is reduced to text extracted from the constitutive and dynamic relations of meaning that each of the ‘messages’ in the ‘data set’ serves to enact. Network analyses don’t solve this problem. Networks can provide generalized static description of large data sets, but in doing so they dissolve and reduce out all but what the investigator has already deemed relevant *a priori*—while being strictly limited, at best, to what is available as ‘text’ (including ‘metadata’). Longitudinal ‘data’ doesn’t solve this problem, either; it just further dissolves the spatialities and temporalities of its constitutive interactions (even if we ‘contextualize’ the ‘networks’ with other kinds of charts and ‘data visualizations’). This “*loss of relationality*,” which is common to all studies of discourse as ‘text’ (e.g. conversational analysis, discourse analysis),

has led to a focus on meanings to [be] found in *already said* patterns of recorded words, rather than on what speakers may have been trying to mean at the time in *saying* them—an approach to research inquiries that, yet again, puts the power of sense-making into the hands of academic experts and takes it out of the hands of ordinary people.

This use of ‘research methods’ to convert our ongoing experience into finished products—our experience of relationships, of meetings, of gatherings, institutions, and other formations in which we are still actively involved into already formed wholes, rather than leaving them as still forming and formative processes—diverts our attention away, both from the ways in which individual people’s expressions continually *deviate* from our already existing background expectations, i.e., in their *specific variability* as Voloshinov (1986, p. 69) puts it, and from the ways in which our understandings in practice work in terms of our anticipations as to what a speaker is *trying* to say to us. (Shotter, 2012. p. 137-138)

Shotter’s target here is somewhat different from mine in that being a psychologist he is engaged with interpersonal interaction from a slightly different angle (i.e., angling towards the therapeutic). However, his point is well taken and is acknowledged by some who study language in digitally mediated interaction. Caroline Tagg (2016), for example, investigating online (text-mediated) identity performance, has recently reiterated Bakhtin’s argument that “all language use can be understood as heteroglossic; no word is neutral” (p. 77). “Social and linguistic diversity,” she argues, is “a norm across human interactions” (p. 79), and

Quantitative analysis alone cannot determine what a sign means in a situated act of meaning-making [...] nor can it detail how and why particular resources are drawn on at any one moment. (Tagg, 2016, p. 79)

Again, this argument holds for network analysis because the ‘situated act of meaning-making’ is not what is given in network analysis but is precisely what is dissolved in its solution. In a slogan, every node is a network: every point is itself a set of relations. In another slogan, there are no points, only *pointings*.

Despite the tone, none of this is meant to serve as an argument for the abandonment or elimination of textual analysis—or network analysis, for that matter—but to insist that to describe (i.e. to turn ‘data’ into ‘information’—to re-present representations) is not to understand the meaning that ‘data’ as ‘information’ presents, re-presents, or represents: as ‘decoding’ is a form of ‘encoding’, description is re-inscription—a re-membering—of already reduced meaning. Furthermore, as a re-inscription—a translation from, and therefore already an interpretation of, or ‘re-semiotization’ of (Scollon & Scollon, 2004), one (or several) Subject(s) to and for another—it is strictly bound to the capacities and tendencies of the investigator (Person) and method (as mediational means and Agent) accomplishing that re-inscription. At heart, this argument isn’t in any way new, of course; it’s essentially a basic tenet of any methods course worth the name. However, it’s a basic tenet that tends to be enunciated as required, and then (much like the terms and conditions that we all regularly ‘check-and-forget’) happily forgotten until well after the ‘data’ have been made to speak (then being offered the polite gesture of ‘study limitations’—at once a wave of acknowledgment and a brush-off of dismissal). On the other hand, the growing shift towards ‘mixed methods’ in digital and social media studies represents a direct acknowledgment of the paucity of strictly empirical description (derived from whatever methods) and the limited interpretations it makes possible. Applying several different methods of investigation makes possible better judgments because, to paraphrase Nietzsche (and, by derivation, Kenneth Burke and, indeed, Gregory Bateson), if you really want to understand something, you must approach it from as many different angles as possible, gathering as many ‘truths’ about it (as relative to as many contexts, levels of abstraction, and purposes) as you can manage.

This speaks directly to the acknowledgement of the fact that there are always many different Subjects or dynamic territories of meaning at play in human communication, at any level of interaction, engagement, or enactment. And the sheer volume of those Subjects as imbricated territories of meaning-making continues to grow exponentially with the continual development and spread of digitally networked communications technologies as mediational means. This ‘super-diversity’ (Vertovec, 2007) has recently been approached by Blommaert & Backus (2013) in terms of the linguistic or communicational ‘repertoires’ available to people in situated interaction. Blommaert & Varis (2011) similarly discuss “the heuristics of authenticity in superdiversity” in terms that can be understood in relation to what are herein discussed as (‘authenticating’ or ‘authorizing’) Subjects. However, (drawing from the Scollons) Blommaert and colleagues, while strongly emphasizing the situated and embodied character of interaction, speak of these communicational ‘repertoires’ that characterize ‘superdiversity’ primarily in terms of sociolinguistic registers, and thus (while drawing from Hymes’s, 1996, notion of ‘communicative competence’ as distinct from Chomskyan ‘linguistic competence’) they continue to privilege language (i.e., the symbolic), which, however, serves to re-inscribe the very problem they are addressing (and, further, to leave no room or justification for the investigation of the relational influence of strictly intentional actors).¹⁷³ Nevertheless, Blommaert and colleagues are insistent about the indexical character of these ‘communicational repertoires’ in a way that is entirely consistent with the present argument:

The resources that enter into a repertoire are indexical resources, the language materials that enable us to produce more than just linguistic meaning but to produce images of ourself, pointing interlocutors towards the frames in which we want our meanings to be

¹⁷³ This also holds for genre studies in rhetoric and composition, which has much in common with the sociolinguistic investigation of ‘repertoires’; see, e.g., Freadman’s (2002) integration of Bakhtinian speech genres with Austin’s speech act theory notion of “uptake.”

put. Repertoires are thus indexical biographies, and analyzing repertoires amounts to analyzing the social and cultural itineraries followed by people, how they manoeuvred and navigated them, and how they placed themselves into the various social arenas they inhabited or visited in their lives. [...] Repertoires in a superdiverse world are records of mobility: of movement of people, language resources, social arenas, technologies of learning and learning environments. A relevant concept of repertoires needs to account for these patterns of mobility, for these patterns construct and constitute contemporary late-modern subjects. [...] We tend to underestimate the degree to which our lives develop along trajectories of mobility, in which we encounter, leave, learn and unlearn social and cultural forms of knowledge (such as languages) because we need to be able to make sense of ourselves. In that sense, we can see ‘structure’, or at least ‘pattern’ in repertoires that are otherwise entirely unique. The structures and patterns are dynamic and adaptable, while they are driven by shared motives and intentions: to make sense, to have a voice wherever we are.

There is an angle to this that merits exploration. Voice, as we know, is subject to normative judgment – one has voice when someone ratifies it as such. In that sense, our subject’s repertoire is a complex of traces of power: a collection of resources our subject *had to* accumulate and learn in order to make sense to others, that, in order to operate within the norms and expectations that govern social life in the many niches in which he dwelled and through which he passed. The elements of the repertoire are resources he *needed* to deploy, practices he had to perform, in order to be ‘normal’ in the polycentric and dynamic world in which he lived. [...] Thus conceived, repertoires invite a new form of analysis. No longer seen as the static, synchronic property of a ‘speech community’, we can now approach it as an inroad into late-modern subjectivities – the subjectivities of people whose membership of social categories is dynamic, changeable and negotiable, and whose membership is at any time always a membership-by-degree. Repertoires enable us to document in great detail the trajectories followed by people throughout their lives: the opportunities, constraints and inequalities they were facing, the learning environments they had access to (and those they did not have access to), their movement across physical and social space, their potential for voice in particular social arenas. (Blommaert & Backus, 2013, p. 28)

Echoes of the present account of communication as interaction proliferate and leap from the page in this passage, though the sociolinguistic disciplinary grounding provides some tension and underlying contrast. That tension emanates from the present refusal to privilege language or the symbolic as the basis of communication. Again, this does not mean an abandonment of language but a reorientation from words and ‘texts’ as points to ‘data’ and ‘information’ as *pointings*. Communication as interaction is thus understood as the enactment of spacetime (as shared territory of meaning): *acting into* confluence generated by the interplay between motivation and intention.

To illustrate what this might mean in practice, this chapter provides a series of examples that gradually build upon one another and that are designed to elucidate and explicate the underlying indicative or gestural character of even mediated and textual communication. In order to anchor this reorientation toward the indicative, I begin with a series of closely related conventional epideictic speeches. This sets a rhetorical grounding upon which to build a set of relations with other forms of textual interaction, specifically including digitally mediated interaction. Again, the idea is not to abandon ‘text’ or the symbolic but to acknowledge their dynamicism and relational ontology, and to better understand their constitutive relations in communication as the act of shared spacetime-making (whether as Subjects, frames, repertoires, genres, etc.). We want to take text not as ‘data points’ but as *informing* pointings. Such informing happens most obviously in epideictic rhetoric.

5.2 Conventional Epideictic as Space-Making: Signs are More than Symbols

Epideictic rhetoric, particularly, involves the explicit attempt to influence the confluence by (re)territorializing ideological relations. The Gettysburg Address is a perfect and classic

example of this epideictic function of oratory: the affective mobilization of shared beliefs and desires to provide a new way of seeing and *evaluating* the past and to ‘show forth’ a way of acting-together to build a better future at a critical social and historical moment. In the 250 or so words (depending on the version of the speech consulted) of his dedication of the Soldiers’ National Cemetery in Gettysburg, Pennsylvania, Abraham Lincoln “set the wheels in motion for a new America” (Peatman, 2013) by providing a new way of seeing the founding ‘proposition’ of the United States: that *all* men [*sic*] are created equal. Gary Wills explains,

Lincoln did for the whole Civil War what he accomplished for the single battlefield. He has prescinded from messy squabbles over constitutionality, sectionalism, property, states. Slavery is not mentioned, any more than Gettysburg is. The discussion is driven back to back, beyond the historical particulars, to great ideals that are made to grapple naked in an airy battle of the mind. Lincoln derives a new, transcendental, significance from this bloody episode. Both North and South strove to win the battle for *interpreting* Gettysburg as soon as the physical battle had ended. Lincoln is after even larger game—he means to “win” the whole Civil War in ideological terms as well as military ones. And he will succeed: the Civil War *is*, to most Americans, what Lincoln wanted it to *mean*. [...H]e performed one of the most daring acts of open-air sleight-of-hand ever witnessed by the unsuspecting. Everyone in that vast throng of thousands was having his or her intellectual pocket picked. The crowd departed with a new thing in its ideological luggage, that new constitution Lincoln had substituted for the one they brought there with them. They walked off, from those curving graves on the hillside, under a changed sky, into a different America. Lincoln had revolutionized the Revolution, giving people a new past to live with that would change their future indefinitely. (Wills, 1992, p. 37-38)

In the Gettysburg Address, Lincoln appealed to shared values capable of binding the fractured nation into a cohesive whole. He did so by reinvisioning a shared past and pointing toward a shared future in a vector emanating from the present moment of solemn acknowledgment of sacrifice.

Wills (1992) and Peatman (2013) are among the many historians and scholars who have pointed out the Gettysburg Address's debt to classical rhetoric, specifically the *epitaphios*, a traditional epideictic form. Lincoln drew explicitly from Pericles' funeral oration at Marathon in order to accomplish a similar task: the reinvisioning and re-purposing of the public (consubstantial) conception and evaluation of the state at a key temporal juncture. "It was the challenge of *the moment* that both Pericles and Lincoln addressed" (Wills, 1992, p. 52). And he succeeded.

Up to the Civil War, "the United States" was invariably a plural noun: "the United States are a free government." After Gettysburg it became a singular: "The United States *is* a free government." This was the result of the mode of thinking Lincoln expressed in his acts as well as his words, making *union* not a mystical but a constitutional reality. When he spoke at the end of the Address, about government "of *the* people, by *the* people, for *the* people," [...] he was saying that American is *a* people [...]. This people was "conceived" in 1776, "brought forth" as an entity whose birth was datable ("four score and seven" years back) and placeable ("on this continent"), something that could receive a "new birth of freedom." By giving this language a place in our sacred documents, Lincoln changed the way people thought about the Constitution. [...] The Gettysburg Address has become an authoritative expression of the American spirit—as authoritative as the Declaration itself, and perhaps even more influential, since it determines how we read the Declaration. (Wills, 1992, p. 145-147)

This is language as 'symbolic action'—*kairos* reorienting *chronos*:

Lincoln does not argue law or history, as Daniel Webster did. He *makes* history. He does not come to present a theory, but to impose a symbol, one tested in experience and appealing to national values, with an emotional urgency entirely expressed in calm abstractions (fire in ice). He came to change the world, to effect an intellectual revolution. (Wills, 1992, p. 146-147)

In present terms, however, the 'imposed symbol' of the Gettysburg Address effected its

‘intellectual revolution’ precisely *by* ‘presenting a theory’, a new ‘way of seeing’. “When rhetors speak in place about what that place symbolizes for the community,” Prasch argues, “their language constitutes the assembled audience as *theōros* responsible for living and acting in such a way that the lessons of the past might be (re)constituted for future generations” (Prasch, 2016, p. 6). And that action is accomplished within the epideictic dimension not only as *symbolic* action but also as *indexical* and *iconical* action.

Wills provides a rendering of the Address emphasizing several key “pointer phrases” which bind its ideological elements together while subtly shifting their conceptual targets from past to future, from war to peace, from nation divided to nation renewed and unified:

Four score and seven years ago our fathers brought forth on this continent, *a new nation, conceived in Liberty and dedicated* to the proposition that all men are created equal.

Now we are engaged in A GREAT CIVIL WAR, testing whether *that nation*, or any nation *so conceived and so dedicated*, can long endure.

We are met on a great battlefield of THAT WAR.

We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that *that nation* might live. It is altogether fitting and proper that we do this.

But, in a larger sense, we can not dedicate—we can not consecrate—we cannot hallow—this ground.

The brave men, living and dead, **who struggled here**, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here.

It is for us, the living, rather, to be dedicated here to the unfinished work which they **who fought here** have thus far so nobly advanced. It is, rather, that from **THESE HONORED DEAD** we take increased devotion to that cause for which they gave the last full measure of devotion—

that we here highly resolve that **THESE DEAD** shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the

people, by the people, for the people, shall not perish from the earth. (Wills, 1992, p. 171-172)

In the weaving of these “pointer phrases” Lincoln enacts a communal ‘conceiving’, ‘dedicating’, and (re)‘consecrating’ of both ‘this’ battlefield and ‘this’ nation by binding the two in the image of sacrifice for and ‘dedication’ to the rebirth of the consubstantial national body identified in ‘we’ and ‘us’. Lincoln thus enacts a new vision of the future through a reinvisioning of the past emanating from the present *pathos* and (“fitting and proper”) *kairos* of the historical moment and the solemn task at hand. This is not the manipulation or instrumentalization of emotion; this is the affective enactment of consubstantiality in the epideictic—a dedication and consecration (reterritorialization) of space (as material, social, and ideological relations) that rededicates a consubstantial people into a sacrificially reconsecrated communal body, which does not simply mobilize sorrow but *produces* ‘dedication’ and ‘devotion’ to the “struggle” of building a better future (through “unfinished work”). The deictic indicators that do this presenting and re-presenting, as Prasch argues,

operate as verbal gestures within the speech act and direct the audience [...] For many linguists, deixis offers a way to identify which elements of context the speaker implicates through language. However, these studies too often limit contextual parameters to the immediate conversational exchange, thereby neglecting the political, ideological, and ultimately rhetorical implications of privileging certain people, places, and times through speech. (Prasch, 2016, p. 2)

“*The world* will little note, nor long remember, what *we* say *here*, but *it* can never forget what *they* did *here*”: the irony, of course, is that the enactment of the Gettysburg Address itself, in that place, at the time, for that audience, in service of Lincoln’s ambitious purposes, has in fact been ‘long remembered’ and the horrific battle to which it served as a response is largely remembered today because of this short speech and the act of continuing re-memorizing it

performs, which is at once indexical and iconic, *as well as* symbolic. That re-membering is evident in rhetorical uses made of the Gettysburg Address and, particularly, the Lincoln Memorial where it is carved in stone.

One particularly significant instance of such rhetorical reference and enactment is Harry Truman's closing keynote to the 38th annual conference of the NAACP on June 29, 1947—the first time a sitting U.S. president addressed the organization—on the steps of the Lincoln Memorial. Prasch's (2015, 2016) recent work on the epideictic and deixis in presidential oratory emphasizes the rhetorical character of linguistic deixis in ways that resonate and rhyme with the broader theoretical account developed herein. Her most recent work, using this particular speech as an extended example, presents a “rhetorical theory of deixis” developing a “deictic approach to close textual criticism” and demonstrates that

Identifying the deictic references within an orator's speech act provides tangible evidence for the historical events, social relationships, symbolic places, shared communities, and dimension of temporality the rhetor invokes through speech. (Prasch, 2016, p. 4)

Truman's address to the NAACP at this particular historical moment was significant for a number of reasons, not in the least because of its location at “a site originally designed to promote national unity—and silence Lincoln's stance on slavery and emancipation” (ibid, p. 21). As Prasch explains, the Lincoln Memorial, dedicated by President Harding in 1922, had been designed to emphasize Lincoln's role as the ‘savior of the Union’ at the expense of his role as ‘the Great Emancipator’. Harding's dedicatory speech (before a pointedly segregated audience), in fact, explicitly rejected the framing of ‘emancipation’ and reiterated less politically volatile language of race relations in terms of ‘gradual progress’. Nevertheless, the Memorial had served as an inescapable reminder of the broken promises to and continuing hopes of African Americans. Less than a decade before Truman's keynote, Marion Anderson, one of the most

celebrated singers of the early 20th century, had given a widely broadcast 1939 Easter concert from the steps of the Lincoln Memorial before a live audience 75,000 after the Daughters of the American Revolution had refused to let her perform for an integrated audience at Constitution Hall because she was African American. The day of Truman's keynote, events began with a 10-minute performance by Marion Anderson. These historical connections and pointings are not and were not implicit, their significations not only symbolic. Such co-constitution of performer, speakers, and audiences is, again, precisely the function of the epideictic dimension.

President Truman's *ethos* as speaker in this instance is complex. Significantly, he was born and raised in a small town in the Southern border state of Missouri, the grandson of slave owners, and made little effort to conceal his own racist opinions even after leaving office. His decision to address the NAACP as an advocate of civil rights, a move he was all too aware would cause an uproar among the Southern Democrats who comprised his political base and locus of support and power, was motivated by two primary concerns. First, efforts to promote the U.S. as a post-war purveyor of global democratic ideals (the 'Truman Doctrine' against the 'evils of communism') was being compromised by the disparity between those touted ideals and the inescapable and well publicized reality of a country in the midst of a widespread epidemic of virulent Jim Crow racism, police brutality, and implicitly condoned lynchings. Second, widespread reports of African American servicemen returning home from combat only to face mobs and other racist violence convinced Truman that (despite "whatever my inclinations as a native of Missouri might have been") "something is radically wrong with the system. I can't approve of such goings on and I shall never approve of it, as long as I am here" (*op cite*, Prasch, 2016, p. 11).

As with Wills' attention to Lincoln's "pointer phrases," Prasch turns her attention to the deictic indicators in Truman's speech which serve to spatiotemporally and epideictically bind speaker and audience:

"**I** should like to talk to **you** briefly about civil rights and human freedom." Employing the presidential "I," Truman reinforced his executive authority to define the bounds of "civil rights and human freedom" and characterize this particular moment in U.S. history. "It is **my** deep conviction that **we** have reached **a turning point** in the **long history** of **our** country's efforts to guarantee freedom to all **our** citizens." Notice how Truman's use of pronouns in this passage quickly assigned agency to the rest of the audience. Speaking as President of the United States and as a fellow citizen, Truman transferred his own view ("**my** deep conviction") of civil rights to the rest of his audience when he argued that "**we** have reached a **turning point**" or a kairotic moment within "the **long history** of **our** country's efforts to guarantee freedom and equality to all **our** citizens." In the span of one sentence, Truman shifted the temporal view of race relations in the United States from one of gradual progress ("**long history**") to a definitive moment requiring an immediate response ("**turning point**"). (Prasch, 2016, p. 14)

Having defined this particular moment as a critical juncture in U.S. race relations, the president gestured toward "**[r]ecent events in the United States and abroad** [that] have made **us** realize that it is more important **today** than **ever before** to insure that all Americans enjoy **these rights**." In this sentence, Truman used temporal and spatial metaphors to describe the current domestic and international situation. (Prasch, 2016, p. 15).

Where Roosevelt had been unable to support anti-lynching legislation for fear of losing the support of Southern Democrats in a tenuous and politically fraught wartime domestic situation, Truman pinpointed the unconscionable disparity between the United States of America's brazenly trumpeted ideals and how those ideals were actually practiced. It "is more

important *today* than *ever before* to insure Americans enjoy *these rights*, Truman declared, and “When *I* say all Americans *I* mean all Americans” (*op cite* Prasch, 2016, p.15).

The qualifier “all” suggested more than total inclusion; it also subtly linked Truman’s declaration with the emancipatory connotations of “all”—a phrase Lincoln used to describe the reach of his Emancipation Proclamation that “all persons held as slaves ... shall be ... forever free.” (Prasch, 2015, p. 16)

That “all” also pointed directly back through the Gettysburg address (as well as the Emancipation Proclamation, which many of that time would have preferred un-membered) to the Declaration of Independence and the proposition that *all* men are created equal.

To an audience assembled at the base of a national shrine to the slain president, Truman insisted that a national commitment to democratic principles would transcend sectional divisions or racial prejudice so that the rest of the world could see firsthand the merits of democracy. [...] “When *past difficulties* faced *our Nation*, *we* met the challenge with inspiring charters of human rights—the Declaration of Independence, the Constitution, the Bill of Rights, and the Emancipation Proclamation.” [...] When Truman added the Emancipation Proclamation to this list, he extended the reach of Lincoln’s initial proclamation from a relatively small geographical region to the entire nation and the global stage—a move that reinforced Lincoln’s status as the Great Emancipator even as it expanded the connotation of “all” to, as Truman would state in his final sentence of the speech, “all classes and conditions of mankind” (Prasch, 2016, p. 17).

Sixteen years after Truman become the first sitting U.S. President to address the NAACP, and a century after Gettysburg, another epideictic act of rededication to the cause consecrated in past sacrifice for the reinvisioning of a consubstantial future was performed on the steps of the Lincoln Memorial: Martin Luther King, Jr.’s I Have a Dream delivered at the March on Washington for Jobs and Freedom, August 28, 1963—at which Marion Anderson was scheduled

to open the ceremonies by leading the audience in the National Anthem.¹⁷⁴ In the Gettysburg Address, Lincoln had integrated the sacred and the sociopolitical using familiar biblical language to encompass a revaluation of the Declaration of Independence in order to accomplish the moral and ethical purpose of national unity. Truman had forcefully insisted on the need for the United States to “put our own house in order,” recalling and re-membering Lincoln’s a “house divided against itself cannot stand,” which was itself drawn from the New Testament. In I Have a Dream, King pursues a similar purpose in a similar manner, integrating biblical language and allusion with the sociopolitical (including the Gettysburg Address, as well as the Emancipation Proclamation and the Declaration of Independence) to bind the spatially present audience on the National Mall in Washington DC and the temporally present televised audience into a unified affective vector of moral and ethical action from a shared past to a shared (dreamed of) future: the *kairotic* reorientation of *chronos*. For despite its reliance on the rhetorically re-membered, the epideictic, fundamentally, argues Foley, “does not point back at what has already come into being, at what has come before, but instead at becoming, at generation, at origination. [...] Epideictic points toward the promise of change” (Foley 2015, p. 210-211).

In I Have a Dream, King’s allusions to Lincoln, both in the physical setting and in the language of the speech (from the first “Five score years ago”),

function to call up the principles and values associated with Lincoln and articulated in the documents alluded to [...] The tangible reminders of Lincoln’s presidency and leadership—the monument and quasi-sacred documents associated with him—function here as symbols, the ‘material supports’ that Perelman and Olbrechts-Tyteca [1969] elsewhere observe are required in ceremonies of communion. (Graff & Winn, 2006, p. 56)

¹⁷⁴ Anderson was unable to arrive in time to lead the opening ceremony, but was able to perform later in the day.

In I Have a Dream, Lincoln and the promise articulated in the Gettysburg Address form the base of a material and ideological vector of action running directly through Truman's relatively recent address, binding the nation together in shared purpose based on shared values and shared beliefs.

One of the clearest ways of seeing the significant and indicative movements towards sociopolitical union and consubstantiality in I Have a Dream is, as we have already seen, by paying close attention to the pronouns. King moves from the 'us/we' of the African American community against the 'they/them' of an 'America' that has failed to fulfill past promises to the 'we/our' of 'America', the home of "all God's children." The second paragraph begins this process by setting up the oppositions to be unified: "We've come" to the capital of "our Republic" where "they" [the founding fathers] established a contract promising freedom for "every American." This 'we' includes all of those gathered in the co-present and mediated audience. The 'they' indicates the founding fathers' separation from the present audience of 'all Americans' as less a matter of temporal displacement than an indictment of the unfulfilled promises 'they' made: 'they' cannot be consubstantial with 'us' until 'America's' promises of freedom to all of "her" citizens, including "her" "citizens of color," have been fulfilled. "We have come [...] to remind America," King says in paragraph four, emphasizing the current division, the wound to be healed in what by the end of the paragraph is "our nation."

In paragraph five, King clearly distinguishes the divisions among "all of God's children" separating "the nation" from "the Negro" as well as "the Negro" from "those" who hoped the disruptions of the Civil Rights movement would run out of steam. In paragraph six, however, "the Negro" becomes part of "our nation" and King directly identifies himself not with "the Negro" (the 'third person') but with "my people" in "we," "our," and "us." Paragraph seven begins the work of consubstantiation proper, moving from "we" to "their" to "our"— "the Negro

community” and “our white brothers” share a (consubstantial) “destiny.” The “our” of “the Negro community” merges with the “our” of “our nation” as well as “all God’s children.” From paragraphs seven through eleven, “the Negro” is articulated as third person against the “we” of the oppressed community. In paragraph twelve, audience, speaker, and the figure of the oppressed “Negro” are unified in the figure of the directly addressed “you,” becoming “us” in paragraph thirteen. From paragraph fourteen through the end of the speech, the consubstantiality of speaker and audience is completed, and “we” becomes “my friends,” who share the “American dream” and “our hope”—the hope of “all God’s children.”

Few, if any, of King’s African American listeners would have been unfamiliar with either the form or content of what they heard that day, “but that is precisely why they gain[ed] rhetorical force” (Vail, 2006, p. 59). In addressing the African American audience, specifically, *I Have a Dream* adds another layer of epideictic and affective force through the rhetorical form of the African American jeremiad, an epideictic form of address that integrates Greek and Roman oratorical forms with rhetorical figures and tropes of the Old Testament (Howard-Pitney, 1990; Lei & Miller, 1999). In *I Have a Dream*,

King speaks with the power and persuasion of traditions, voices, and ideas familiar to him and to the African American members of his audience. “*I Have a Dream*” resulted from the words and ideas that had been with King so long that they had become a part of him. (Lei & Miller, 1999, p. 96)

“We can do justice to ‘*I Have a Dream*,’” argue Lei & Miller, “only by presenting it as the diachronic interargumentation of a massive African American community” (Lei & Miller, 1999, p. 97). The biblical and classical tropes of the African American jeremiad were common practice well before the time of the abolitionist movement, and was a common rhetorical strategy of, for example, Frederick Douglass (Lei & Miller, 1999; Luker, 2003). In a traditional jeremiad

the speaker takes the position (Lei & Miller, 1999), and speaks in the voice (Vail, 2006), of a ‘prophet-outcast’ who has gone into the wilderness to hear the voice of God and returned to communicate the divine message to the community. In African American jeremiads, in particular, “the speaker signals this position of alienation through metaphor and scriptural allusion rather than through social isolation” (Lei & Miller, 1999, p. 87). *I Have a Dream* mobilizes a rhetorical stance and a series of allusions so common to African American oratory that their original sources were often unknown to those who used them and those who heard them alike (Luker, 2003). But it is precisely their familiarity as tropes (etymologically, ‘leaning or bending toward’—a direction toward meaning) that serves to bind the present community (as ‘universal audience’) together in the communion of shared tradition and purpose (Graff & Winn, 2006). The allusions do not function for King’s audience as an indication to the original source texts—even the biblical texts—as much as to generate an affective spacetime of conceptual relations, the borders and landmarks of which are defined by previous speeches and occasions in which those allusions and rhetorical forms had been mobilized for similar, re-membered, re-minded, reinforced, and imbricated purposes.

In *I Have a Dream*, King mobilizes the African American jeremiad to identify himself with his audience as ‘outcasts’ and “encourages his listeners to renew their work as outcast prophets in the desert of American society” (Lei & Miller, 1999, p. 94) in order to continue to fight for a better, more just, more egalitarian world represented in the metaphor of the dream of social unity. King’s dream might have seemed “an impossible image to behold had it not just unfolded before America’s eyes in the dynamic spectacle of the March on Washington for Jobs and Freedom” (Vail, 2006, p. 70). Lei & Miller (1999, p. 87) explain that the “jeremiad fit ceremonial protests because it too framed dissent within a celebration of past promises and hope

for future fulfillment of them,” in the three-part conceptual structure of past, present, and future common to epideictic rhetoric. In the case of I Have a Dream, “King structures elements of his speech according to the familiar [past] promise, [present] failure, and eventual [future] fulfillment framework of the jeremiad that [Frederick] Douglass used for his speech in 1852,” *What to the Slave Is the Fourth of July?* (Lei & Miller, 1999, p. 96-97). The common structure, tropes, and allusions that bind speaker and audience in a shared conceptual spacetime also generate a spacetime of affective relations by evoking shared emotion for the purpose of establishing and strengthening shared belief that can then be actualized in social action. In the African American jeremiad this is often accomplished

through graphic descriptions of American racism and matches that emotional appeal with a logical contrast of the promise and the reality of contemporary social injustice.

Frederick Douglass detailed the structure of the logical appeal in an 1846 rally of British supporters: “Hold up before them [Americans] their inconsistencies. Tell them to look at their Act of Declaration—to contrast that with their conduct. In that Declaration we have these truths ... ‘That all men are born free and equal’ ... Ask them to give up slavery and stand by that Declaration. Demand this in the name of consistency.” (Lei & Miller, 1999, p. 88-89; *op cite* Douglass, 1979)

In I Have a Dream, King slightly alters the traditional form by presenting “a series of abbreviated contrasts of the promise and the failure to meet that promise,” which then “culminate in a rousing version of the traditional vision of a redeemed nation singing in choral harmony”: *free at last* (Lei & Miller, 1999, p. 93).

King made each of these rhetorical moves precisely because they followed the well-established African American traditions of ceremonial protest and jeremiad speech-making. It is these traditions, voices, and ideas that echo down the decades to President Clinton and contemporary Americans, shaping our memory of King’s lifework and of the entire civil rights movement. (Lei & Miller, 1999, p. 97)

These three conventional orations demonstrate the constitutive spacemaking function of the epideictic where it is most obvious. The foregoing is a re-membering of these re-memberings—textual re-presentations of embodied performances that have become more affective (if not more effective) with each re-membering. These ‘texts’ are not yet static (in the way that, say, Pericles’ funeral oration is) because the significant work (indexical and iconic as much as symbolic action) that they do continues—the connections among them and contemporary events are ‘live’.

The original ‘oral’ character of these performances (each of which was, of course, ‘originally’ written to be performed orally then post-performatively re-inscribed) only contributes to their continuing textual performance. These modes of interaction are not separable any more than are the three speeches from one another in terms of their larger shared space of significance and purpose, built by, for example, allusive indication. I Have a Dream, for example, does not simply contribute to this ‘context’; it was born out of and emanates from that territory of meaning while reinforcing and pushing against that territory’s borders and boundaries—as allusions to *it* continue to do. These speeches, like all others, draw their meaning from the ‘context’ they re-present. That is, in fact, their very purpose. And these interactional, performative, and broadly significative (i.e., territorializing) functions—mediations—are not the sole purview of oratory or even of the verbal (let alone the symbolic). *All* communication as interaction performs these functions of (indexical-synecdochic) presentation, (iconic-metonymic) re-presentation, and (symbolic-metaphoric) representation. As motivated beings we are made of the meanings that we make by acting into confluence; we continually re-make the meanings that continually re-make us in interaction.

5.3 The Epideictic and the Phatic: Ritual Performance of the Imbricated Self

[E]pideictic discourse that attains to seriousness and aspires to significance raises an issue that is frequently subject to doubt, namely the issue of ethos, literally of character, of who we are, and what and how we are (or should become), of what we value or disdain. The ethical question, the question of character, also inevitably involves the issue of identity, our sense of our selves, what and whom we come from, to whom we belong, and who belongs with us. (White 1998, p. 130)

Traditional epideictic oratory serves to bind the audience and speaker in a shared *ethotic* spacetime by harnessing the present *kairotic* moment to reorient the past in order to affect beliefs, attitudes, and future actions (*chronos*). That ‘reorientation’ can be ‘re-’ in the sense of either repetition and reinforcement of existing ideological territories, or ‘re-’ in the sense of revolutionary re-making of constitutive relations and boundaries (and, at times, either of these can be presented as the other). Part of the present argument, however, is that these functions are not limited to traditional forms of epideictic oratory, but are present to some extent in all forms of communication as interaction. This, in fact, is precisely why the ‘epideictic dimension’ is understood to be the fundamental basis of rhetoric as intentional influence: ‘persuasion’ requires enacting influence on the confluence, thus the boundaries of the flow of that constitutive space must be established and, to some extent, acknowledged for communication to take place. However, one obvious characteristic of traditional epideictic form, such as the examples in the previous section, is that they are both explicitly oratorical and explicitly carefully crafted textual performances. The next step toward the elucidation of the epideictic functions of mundane interaction must move us away from conventional oratory and toward more quotidian and ‘pragmatic’ forms of interaction.

First, let’s remember Aristotle’s distinction between the epideictic (*theoria*) and the pragmatic (*kritai*) as different and separate modes of judgment:

- *Theoria* is the judgment of an active witness based on observation “about what is praiseworthy, preferable, desirable, or worthy of belief in the speaker’s *logos*. [...] The *theoros*’ role, in short, is not to make rulings but to form opinions about and in response to the discourse presented” (Walker 1996, p. 253-254).
- *Kritai* is the judgment of the passive, though authoritative, audience necessary to institutional transactions (*praxeis*) of the public business (*pragmateia*).

However, in the intervening millennia, the ‘public business’ of the ‘pragmatic’ has accreted a much larger scope, and Chapter 2 concluded that the epideictic serves an important pragmatic function itself by forming the necessary basis and grounding of pragmatic judgment. The epideictic is pragmatic (i.e., functional) in that it establishes (in-forms) the constitutive space of relations, i.e. *pathos* generates *ethos* through *logos*, or the Person enacts the Subject through the Agent—remembering that the Person is not a ‘person’ but a theoretical construct that helps us think and talk about the relations among people, ideologies, and the means of implementation and enaction of those ideologies in confluence. The pragmatic function of the epideictic is to ‘show forth’ a set of moral and ethical values and virtues that bind a like-minded community together in identification with common principles: “The individual person, striving to form himself in accordance with the communicative norms that match the cooperative ways of his society” (Burke, 1969b, p. 39). This is the establishment and maintenance of consubstantiality in constitutive rhetoric as ‘symbolic action’, the act of which constitutes a shared space of relations or (not just epistemological, but also an ontological) territory of meaning.

The criteria of epideictic oratory as the rhetoric of praise and blame (and therefore, the establishment and maintenance of shared values) typically includes the ritualistic and rhythmic binding of those values by binding re-membered past to normatively expected or constructed

future in the *kairotic* present. Ritual comprises appropriate and authorized forms of (intra)action at specific moments in time, but those ‘moments’ are not always measured strictly by ‘clock time’ and don’t always make sense as relations if forced into a reductive, quantified temporality. Ceremonial and ‘occasional’ speeches, for example, are temporal as well as spatial indicators, beats in a culture or society’s ideological rhythm: the opening ceremony, the dedication (e.g., *epitaphios*), the commemorative address, the (weekly or holiday) sermon, the commencement speech, the funeral oration, the State of the Union, etc. Most of these common forms of epideictic address can be aligned with seasonal or calendrical clock time (which is what makes them useful examples), but cultural and historical spacetimes may have their own rhythms—the wedding toast, for example, (like the funeral oration) is part of a socioculturally determined temporal cycle that has no necessary connection to quantified temporality (it is bound to the other beats in the rhythm of the courtship and marriage spacetime, particularly those of the wedding event).

The temporal and rhythmic criteria of the epideictic are also found in more common ritual forms of communication, and in them we see the relation of the epideictic and the phatic, which is also typically described as ritualistic and explicitly performative (and normative)—less ‘informative’ than ‘connective’, less about ‘transmitting’ than ‘in-*form*-ing’. Compare this claim with a similar one made very recently by Arjun Appadurai in a completely different context, concerning

the capacity of [what Durkheim referred to as] the collective effervescence to produce that sort of conviction, force, and electricity (the latter two terms coming from Durkheim’s own usage), which does not only symbolize or represent the presence of society as the ruling force that links and regulates the bodies of its members. It also generates that sense of belonging to a powerful and abstract force, simultaneously ecstatic and regulated, which lends authority to the profane moments, spaces, and

contexts of quotidian social life outside the ritual sphere. In this sense, rituals are not simply performative (in the sense of Austin and many later anthropological followers of Austin) but are in fact constitutive or, better still, generative of the force of all social conventions in ordinary social life. (Appadurai, 2015, p. 89-90)

In Perelman & Olbrechts-Tyteca's (1969) influential definition, the epideictic is concerned with 'building communion through the strengthening of adherence to shared values'. Consistent with Malinowski's (1923) original definition, phatic communion enacts the necessary acknowledgment of affective social identification, legitimation, and authorization (even if in opposition or contrast) in the acknowledgment or establishment of a shared cognitive environment, as well as the 'non-informative' (e.g., affective) maintenance of those spaces, their relational constituents, and their boundaries. Like the epideictic, phatic communication is *deictic*, socially orientational; it enacts the recognition and acknowledgment of the other, a social and ideological orientational function without which no successful communication can be effected at all. We might, thus, understand the phatic to be the pragmatic aspect of the epideictic—the primary purpose of which is not to 'inform' but to indicate shared motivations in the acknowledgement or establishment of shared territories of meaning.

5.3.1 Cultural Rhythms, Constitutive Mediations

One common example of the alignment of the epideictic and the phatic is the Western cultural tradition of the holiday card and letter, an annual interactional ritual that Di Leonardo (1987) describes in terms of (gendered) domestic labor as a form of "the creation and maintenance of kin and quasi-kin networks in advanced industrial societies" (p. 443). Despite its status as a common form of annual ritualized address, the holiday card and letter have remained

virtually untouched since Banks, Louie, & Einerson's (2000) qualitative study of a relatively large corpus of holiday letters spanning several decades:

The almost total absence of holiday letters in academic studies and the recognition of the genre in popular discourse, together with the frequent attribution of vulgarity, mark holiday letters as a relative newcomer to epistolary correspondence. The duplication and distribution techniques and the mass audience recipients are two defining characteristics of the genre. In general, the holiday letter is a form of personal correspondence in which the same letter is sent to multiple recipients in widely diverse locations, typically around holiday time each year. Indeed, because the genre relies on mass duplication and distribution technologies, it could only have been developed when and where inexpensive reproduction mechanisms and a highly efficient mail delivery service are available. This defining quality means that, even in the most advanced technological societies, holiday letters have been possible only within roughly the last 50 years. (Banks, Louie, & Einerson, 2000, p. 301)

According to Banks et al, at the turn of the 21st century holiday cards were often associated with “fraudulent sentiment – a pretense of correspondence that purports to be personal when in fact many recipients receive the same letter” (ibid, p. 300). It is likely that social media's normalization of ‘mass interpersonal communication’ has tempered (or even upended) this characterization of the holiday card to some degree, which illuminates the holiday card's resemblance to an affiliative social media post for a limited audience. In fact, its status as ‘snail mail’ may now lend the printed-and-mailed (or even better, hand-written) holiday letter and photo card more social and cultural capital, with the ‘vulgarity’ of the genre being displaced to e-cards which require less investment of time, energy, and money. Where in pre-digital days, greeting cards were sometimes considered ‘vulgar’ by virtue of their ‘mass-produced sentiment’, the time, effort (including the physical effort of multiple inscription), and cost associated with physical cards can now indicate higher social value for the reciprocal relationship (i.e.,

motivation). Nevertheless, holiday letters resemble the basic (reciprocal network) social media post far more than they represent a strange example of traditional epistolary: “holiday letters hybridize the genres of personal correspondence and journalistic publications” (ibid, p. 301) in much the same way as a Facebook post for a limited audience of ‘friends’. In this way and for these reasons, Christmas cards and, particularly, holiday letters should be taken as an important, temporally delimited, precursor of many forms of social media interaction. For example:

holiday letters are a one-way correspondence, more akin to celebratory announcements, news reports, and advertisements than to the reciprocal intimate exchanges of information and commentary that typify most other [pre-digital] personal correspondence. (Banks, Louie, & Einerson, 2000, p. 301)

However, unlike the social media post, holiday letters are more specifically ritualized and temporally (rhythmically) constrained:

holiday letters are periodicals, updates issued at a specific time of year, most often at the Christmas/Hannukah holidays, but also in some rare instances at Thanksgiving or New Year. Because they are sent repetitively at a particular time of year, they bracket a time-frame for reporting the news about the writer, the writer’s immediate family, and frequently other members of the writer’s household, such as pets. That time-frame is characteristically a year, and it often coincides with the calendar year. (Banks, Louie, & Einerson, 2000, p. 301)

In this way the holiday letter serves as a narrative form of collective identity and ideological performance, an *acting into* the space of social relations in a unifying seasonal rhythm. Thus,

holiday letters convey personal stories set within a bracketed period to achieve ongoing autobiographies, such that a positive identity for the writer and his or her intimates is created through depicting the writer’s life (and intimates’ lives) as progressing toward the good and the preferred in the dominant culture. Holiday letters are thus articulations and rearticulations of identities. (Banks, Louie, & Einerson, 2000, p. 320)

The holiday newsletter, in this sense, and despite any holiday well-wishes appended, is not primarily about the holiday sentiment, but is the epideictic and phatic performance of ‘network maintenance’—it is a form of domestic and affective labor that serves as a form of constitutive rhetoric binding (collective) ‘senders’ and (collective) ‘receivers’ in shared ideological spacetimes:

Holiday letters both send news of [the writer’s immediate family] and account for those choices; accordingly, they contribute to the articulation of relationships that carry individuals’ values and priorities. In constructing the narrative laminations of individuals’ lives, letter writers both *encapsulate* themselves in existing relationships and identities and *transform* themselves and their relationships [...] by articulating the historical bonds of affection between writers and their worlds and between writers and their readers. (Banks, Louie, & Einerson, 2000, p. 324)

Holiday letters thus serve a social and ideological spatiotemporally orienting or synchronizing function, bringing ‘sender’ and ‘receiver’ into affective and temporal, as well as spatial and ideological, alignment. It is precisely in this sense that holiday cards and newsletters are phatic: despite their apparent informative function (e.g., ‘a year in the life of the Smiths’), their primary purpose is not to ‘transmit information’ but to perform the pragmatic function of the epideictic dimension—the ritual/rhythmic reinforcement of the constitutive spacetime of relations.

Banks et al’s content analysis of 128 holiday letters from 64 sources spanning the early 1970s to (presumably) the 1990s, mostly from the northwestern United States, provides a baseline for comparison. Their preliminary open coding resulted in 80 content categories that were subsequently reduced to 13 axial categories that were further condensed into 6 notional categories (listed in Table 3, discussed below). The authors found that two contrasting dimensions permeated these categories: connectedness and distinctness. This is no surprise at all and, in fact, reinforces the epideictic character of holiday newsletters by foregrounding the

dialectic (the Platonic yin-and-yang) of combination (or identification) and division discussed in Chapters 2 and 3, as well as the mutually constitutive relations among Persons and Subjects (and hence, the individual and the social):

Connectedness and distinctiveness are not dualistic qualitative dimensions of the data; instead, they are mutually defining and coextensive elements within a dynamic of individuals' life stories [...] reciprocal frameworks, each providing the dynamic ground for the other. Thus, persons are connected with others only insofar as they can otherwise express individual agency; and they achieve distinction only to the extent that their actions have evaluative grounds in commonly held standards of worth, probity, style, and so forth. (Banks, Louie, & Einerson, 2000, p. 317-318).

In the terms of Chapter 3, a Person can act only within the constitutive bounds of a Subject and only through an Agent constituted and constrained by that Subject being enacted. It is the mutually constitutive social connection that generates individual agency, and individual agency exists only in relation to a constitutive territory of enactive meaning. (A wholly independent 'individual'—whether motivated or intentional—would have nothing to act on, from, or upon, and no reason to do so.) Our constitutive territories of meaning (Subjects), however, are neither static, solid, nor permanent; they must be continually reconstituted, rhythmically re-enacted, and, as motivated actors, we can choose to perform those necessary acts of social-identity maintenance (or not) and choose *how faithfully* we do so ('faithful', that is, to our interpretations of previously articulated normative constraints). Specifically,

In constructing the narrative laminations of individuals' lives, [holiday] letter writers both *encapsulate* themselves in existing relationships and identities and *transform* themselves and their relationships. [...] Connectedness contributes to encapsulation by articulating the historical bonds of affection between writers and their worlds and between writers and their readers. At the same time, the other theme of distinctiveness interjects new information into identity narratives, challenging their stability and differentiating

individuals. In this reciprocal set of processes, relationships configure individuals and individuals reconfigure their relationships. (Banks, Louie, & Einerson, 2000, p. 324)

These identity performances are enacted in quite specific and interesting ways in holiday letters in relation to the specific constraints of the genre that in some ways set them apart from both the social media post and the personal letter. For example, the authorial voice modality of holiday cards, despite their inarguable classification as personal narrative, is often dynamic:

Unlike most personal letters, in which the writer is self-identified and uses the first person narrative voice, the authorial voice in holiday letters is often agent-less, as if an omniscient narrator is writing, and often names each member of the family in turn, although it is logically apparent that one of them is the writer. Alternatively, the authorial voice may change from one member of the family or household to the voice of a different member, in most cases telling not about oneself but about the others. Internal stylistic evidence—in our collection, more than half the letters do not identify the writer by name—suggests to us that most holiday letters, regardless of shifting voice, are written by a sole author. (Banks, Louie, & Einerson, 2000, p. 302).

This collective voice (of ‘the family’) combines with a rhetorical application of pronouns and definite articles—in ways directly analogous to the epideictic speeches discussed above—to establish constitutive spatiotemporal relations between (collective) ‘sender’/‘author’/‘narrator’ and (collective) ‘receiver’/‘audience’:

Richly evident throughout the data is the use of the definite article rather than indefinite articles or pronouns: ‘...*the* big tree in front of *the* house’ (not ‘...*a* big tree in front of *our* house’), as if singling it out as a unique object and positioning the reader as someone intimate enough to know about it already. (Banks, Louie, & Einerson, 2000, p. 320)

‘Senders’/‘authors’ and ‘receivers’/‘readers’ are thus mutually constituted as ‘us’ in intra-actions that are not ‘merely’ rhetorical but deeply ontological and normative. All of these characteristics establish the holiday card and letter as an important example of epideictic and phatic inter- and

intra-action that serves to establish and rhythmically maintain (collective, normative) identity in relation to a larger, constitutive spacetime or territory of cultural meaning.

However, two important considerations now arise with Banks, Louie, & Einerson's study. First, their sample, as befits the goal of methodological validity, is a relatively random sample from many 'senders' and many 'receivers', which however (in the broader analysis) generalizes or reduces out much of the specific performances within their specific constitutive spaces of relations: their data do not describe a network, but a collection of mediated acts constitutive of many different networks. This means that while they provide us with general characteristics of the generic form of the holiday letter, their ability to detail or explain the relational and interactional functions of the enaction of those generic features in specific instances is limited. Second, all of their sample letters originate from before the spread of social media and the availability of 'photo card' services, which allow people to create their own customized, professional quality holiday cards online using their own family photos—something that was previously prohibitively expensive but now quite common. Thus, given the assumptions of new media studies, we might expect the digital photo card to represent a 'disruption' of this traditional media communication practice—with implications for its ritual status and effectivity.

5.3.2 Mediated Identity: Acting into Confluence

As a small test and comparison of both new media methodological assumptions and the findings of Banks et al's pre-social media findings, I acquired a small collection of holiday cards and letters (n=11) received by a single Catholic family of five residing in a northern Midwestern US city, along with a copy of their own photo card, which they had distributed to family and friends. All data have been thoroughly anonymized. All 12 of the cards and letters were

distributed in the 2014 holiday season. Of the 12 cards and letters collected, 9 are photo cards (only 1 of which uses a single photo). Five of the cards contained separately enclosed letters, only 1 of which was hand-written, though 4 other cards included hand-written inscriptions (and 1 of those an entirely hand-written postcard-letter). In terms of authorial voice, 5 of the letters demonstrated identifiable individual authors/narrators, 4 used an omniscient narrative voice (i.e., third person), and 3 used a collective narrator (i.e., first person plural). Eight of the 12 cards/letters either come with or have appended “Christmas” or “Holidays” (verbal) messages, but only 4 of the 12 include explicit religious messages. Replicating Banks et al’s method of text-token analysis with the 13 axial categories yielded a total of 161 categorizable text-tokens across the 12 cards and letters. The most prominent categorical themes were (discursive) Portraits (n=49, 30%), Interpersonal Connectedness (n=32; 20%), Positive Experience/Adventure (n=19; 12%), Moral Character (n=12; 7%), and Hectic/Busy Life (n=9; 6%).

A comparison of this sample with Banks et al’s corpus (Figure 5) reveals interesting differences. Where the most prominent axial category in the earlier letters is Achievement (19%), the most common category in the present sample is Portraits (i.e., *discursive* descriptions or characterizations of people—photos, being largely unavailable in the Banks et al corpus). However, the next two most prominent categories in both sets of data are Interpersonal Connectedness (specific reference to social relationships; 20% and 15%, respectively) and Positive Experience/Adventure (often, in the present sample, highlighting family vacations; 12% and 14%, respectively), followed by Time (e.g., the passage of time) and Positive News in the Banks et al data (13% and 9%, respectively) and Moral Character and Hectic/Busy Life in the present set (7% and 6%, respectively). Rather than taking these differences to be an indicative of

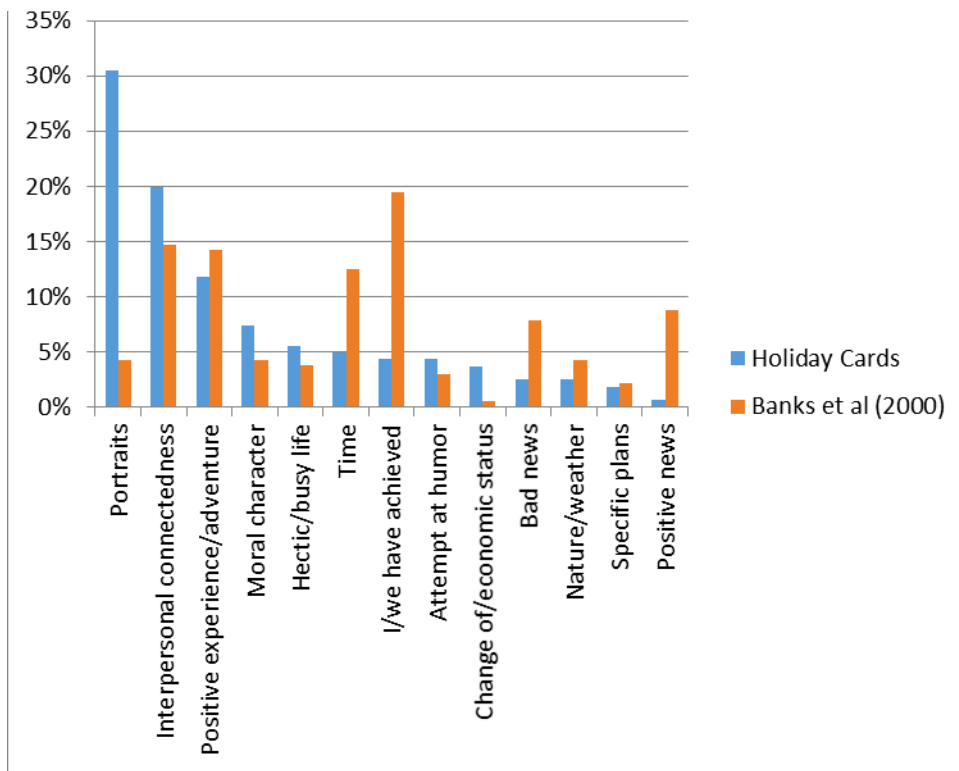


Figure 5. Comparison of axial categories in a sample of a single family's 2014 holiday cards letters with the Banks et al (2000) corpus results.

some kind of otherwise uninterrogated cultural shift in the discursive character of holiday card practices, it would be far more instructive and profitable to take the results of the present sample as an index of this particular social network in which the affective labor of network maintenance that these letters perform is itself privileged and valued as Interpersonal Connection in relation to Moral Character that is also reflected in an active life (i.e., Hectic/Busy and full of Positive Experience/Adventure). The 'text-tokens' in the letters thus indicate the constitutive values of this specific social network, which are reflected in the dominant content categories.

Another option, of course, is to argue that the (new and different) emphasis on Portraits in the 2014 holiday letters reflects the growth and development of a social media culture (hence the lack of Positive News given that mundane social information is now more available thanks to

social media) in which self-presentation is foregrounded with an aim of indicating and performing social, cultural, and economic capital in the representation of the upwardly mobile, heteronormative, nuclear family. After all, 9 of the 12 cards (75%) are photo cards, all featuring photos of children and many (42%) featuring travel or vacation photos, thereby indexing “the leisure time available to construct this rather elaborate and time-consuming performance” of objectified and embodied cultural capital (Mahay, 2013, p. 87). In the only study of holiday photo cards I have been able to find, Mahay (2013) makes an argument along just these lines:

the availability of the digital technology that allows one to create one’s own holiday photo cards has turned the holiday card tradition into a powerful medium for constructing and displaying one’s own social identity in terms of class and status, but also in terms of membership within the hegemonic family ideal. [...A] powerful part of what is ultimately communicated and reinforced through these holiday photo cards is a normative ideal of happiness itself. And, finally, the ability to create one’s own professional quality holiday photo cards adds legitimacy and authority to one’s constructed social identity and the ideals portrayed. (Mahay, 2013, p. 86)

This argument, of course, precisely invokes the basic assumptions of digital and new media studies being criticized herein, specifically the novelty of ‘new’ media and its socially disruptive effects (whether that ‘disruption’ is positive or negative). Furthermore, reflecting so much other digital media research that uncritically accepts the value of ‘data’, Mahay collects a large corpus (n=644) of available ‘texts’, in this case displayed examples from two prominent photo card services (Shutterfly and Tiny Prints). This, of course, means that the findings are a generalization of the marketing constructs of these websites and not, in fact, a representative sample or example of how real people actually implement these performances in their actual social networks. Unlike the Banks et al corpus, there is no way to verify the validity of any of the ‘texts’ on these web sites. Mahay, however, argues that

the websites can be seen as reflecting consumer behavior (demonstrating who is likely to purchase the product and why) [...and] are a place where interested individuals learn how these cards are supposed to look and who is meant to put their photos on holiday cards. (Mahay, 2013, p. 88)

This explicitly and significantly de-authorizes and denies agency to people who use these and other such services and ignores the history of the holiday card and letter as a medium—a fault common to new media studies in its overweening emphasis on novelty. As Gregory Bateson once said, “You cannot study one end of a relationship and make any sense” (Bateson, 2010). In the desire and effort to critically examine cultural phenomena, the very acts of cultural performance supposedly being addressed have been erased. Holiday cards and newsletters do, of course, constitute identity performances, but implications concerning the hegemonic reproduction and performance of cultural capital are built upon a broad generalization derived from a sample curated by these companies’ marketing departments and, thus, cannot address how the performances such cards represent are actually enacted in actual social networks (or, in fact, if any of them ever were).

In contrast, we can look more closely at the dozen cards of one specific family, in one specific location, embedded in their own specific sets of social networks and territories of meaning—spaces that these (actual) cards and letters help to enact. The four most prominent categories in this sample, again, were 1) Portraits, 2) Interpersonal Connectedness, 3) Positive Experience/Adventure, and 4) Moral Character. Interpersonal Connectedness and Positive Experience/Adventure were also the second and third most dominant categories in Banks et al’s corpus, respectively. I will begin with these, and then discuss the differences of the other two categories and what they might indicate.

5.3.2.1 Interpersonal Connectedness

Indications of interpersonal connectedness would seem to be an obvious characterization of phatic discourse in whatever format, particularly given that such connection is precisely what these letters function to perform. In the Banks et al corpus, it included tokens directly indicating connection to family and friends, group memberships and other social relationships, as well as direct address (e.g., well wishes) to the reader. Some examples from the 2014 sample:

...E____, A____, and H____ are on the road, heading our way from Mississippi. It will be great to have them here for the holidays.

... my father passed away unexpectedly at age 71. [...] We miss him greatly.

...we enjoyed Thanksgiving here with J____'s family from Iowa and Minnesota...

B____'s niece has been staying with us...

K____'s friend made her dress, J____ grew the flowers, N____'s family baked the desserts.

October saw A____ in Missouri with her two under-grad college roommates and both of us in Las Vegas for a brief visit with several from A____'s MBA days at the U of Minnesota.

...we've made some good friends...

Wishing you and your delightful boys a joy-filled Christmas!

5.3.2.2 Moral Character

The indications of Moral Character include specifically religious messages, expressions of value or belief, and reports of morally invested activities, including indications of the 'sender'/'author's' performance of 'good works'. Given the religious (Catholic) affiliation of this particular family, indications of Moral Character as part of an epideictic and phatic ritual of network maintenance built around a religious holiday is far from surprising, whether in cards and

letters received or sent. Messages containing either explicit or implicit expressions of character and values include:

Remember: Mary held in her arms the God of love, that we might hold in our hearts the love of God. Have a blessed Christmas!

We pray that God blesses you and your family in the New Year!

Merry Christmas! Another busy year full of blessings, joy and activities!

They are both a joy and a blessing to raise. We are fortunate and try not to take a single day for granted.

...helps with the youth ministry at church.

She continues to serve on the school non-profit board and in the nursery at church.

At [church], M___ and I became a mentor couple for the Prepare program, helping to prepare couples who are entering into the sacrament of marriage.

This year M___ is helping prepare and serve meals at Sharing and Caring Hands, a facility for the homeless...

5.3.2.3 Portraits

The category of Portraits comprises discursive descriptions of people, usually (but not always) of the ‘sender’/‘author’ and immediate family, with an emphasis on children. Mahay (2013) argues that the emphasis on children in holiday cards (particularly images of children) represents the normative equation of the happiness of children in heteronormative, economically advantaged households with happiness in general (remembering, of course, that given the ‘data’ drawn from, this could only refer to the *marketing* of holiday cards, not the function of actual cards as actual acts of relationship maintenance). However, given that the established function of these cards and letters is spatiotemporal orientation, using them to catch up family and friends on the development and social progress of children is far from surprising. Furthermore, the focal

family in this sample contains three children, and therefore naturally has a social circle in similar circumstances. While the heteronormative nuclear family is certainly a normative construct *within this sample*, there is no reason to believe that there is no room for families and relations that do not fit this standard (their apparent absence from the sample does not necessarily indicate their absence from these social networks, nor would such an absence necessarily indicate social exclusion, suppression, or prejudice).

Portraits make up 30% of the text-tokens in these dozen cards and letters, and a full 42% of the photo cards alone—without counting the actual photographic images and portraits on the photo cards. The difference between the number of Portrait text-tokens in the 2014 sample and in the Banks et al corpus (just 4%) might be accounted for to some degree by the overlap between Portraits and Achievements, which was the largest category in the Banks et al corpus but among the smallest in the 2014 data. Of the 49 text-tokens counted as Portraits in the 2014 sample, only a few might be counted as Achievements as well:

I survived our implementation of electronic medical records.

...the highlight being a trip to China for presentations in Beijing ...

...she and her partner were successful in joining a major local hospital chain...

She continues to swim (breaststroke and IM are her best events), play soccer (becoming quite the striker)...

She continues to do Tae Kwon Do (student of the quarter award), play soccer (very speedy!)...

B___ is finished with residency and has started work as an inpatient psychiatrist...

D___ graduated from UST last May. He accepted a position as a [State] Board of Regents Fellow at [university] on the five-year road to getting his Ph.D. in Neuroscience.

R___ keeps improving in piano, and now plays for several hundred people at School Mass a couple of times a year.

However, all but the first of these are embedded in larger narratives detailing the individual's recent activities and/or development, such as:

C___ is in the 9th grade and is singing, dancing, keyboarding and academic honoring her way to high school success.

After looking for us for 20 minutes, A___ swallowed his pride and followed those instructions...

B___ is a senior at [high school]. Photo is his senior picture, taken by one of my colleagues. Photo shoot had to be aborted after 2 hours because B___ needed to eat. He can only go 2 hours without eating. B___ plans to go to [university]. When looking for a roommate he says, he is neat. (WHAT?) I do not think he has the necessary survival skills to live away from home, although he is very good at swiping a credit card. K___ say, B___ will have a roof over his head, and food available at college, so he should survive. B___ works at [supermarket] as a cashier, and bagboy. If you shop there, he is the tall skinny kid with the hair down to his nose.

A___ also started taking guitar lessons this year but doubts she'll be giving concerts anytime soon!

He says he is going to be a handyman. He also plans to kill large animals. He says I will be jealous when I have to get up every morning to go to work, and he is sleeping.

B___'s niece has been staying with us for the semester, taking some classes and working to improve her English. [...] –so maybe it'll be a relief for her to get away... ☺

S___ (7) is in 1st grade and is growing up in so many ways. He plays soccer (fiercly), Tae Kwon Do (blue belt), piano and drama. He is a big fan of Chima and Teenage Mutant Ninja Turtles (Donatello is his favorite because he's smart and uses a bo staff).

O___ spent the summer in Montana working as a wrangler at [ranch] - a small tourist ranch with about 30 horses and 24 guests each week. She took care of the horses, led the steep (!) trail rides, and taught the kids to fly fish. She is in her junior year at Montana State in Bozeman.

Portraits thus often include recent accomplishments, but the finer discrimination of these tokens would not bring the 2014 cards into alignment with the Banks et al corpus. One reason for the disparity may, indeed, have to do with technological development. When achievements can

be reported contemporaneously on Facebook, for example, the holiday card as a narrative recap of the year is less likely to be taken as an appropriate venue for long lists of accomplishments and accolades that are not specifically related to the morally tinged identity performance the holiday card functions to enact. This question of appropriateness relates, in fact, to the fourth category, Positive Experience/Adventure, which most often includes descriptions of family vacations and other travel.

5.3.2.4 Positive Experience/Adventure

Mahay (2013) argues that images of travel, i.e. tourist photos, index a particular socioeconomic class identity and serve as hegemonic performance of status and cultural capital. In the marketing samples she uses this may be the case, but they serve an entirely different purpose from that of the actual people making use of these cards—and the decontextualization of those images means that it is impossible to know. In the dozen holiday cards and letters of the present sample, travel takes on a Moral Character that is imbricated with Interpersonal Connectedness: vacations are framed (usually implicitly) as educational and experiential for the benefit of children and/or as travel with or to visit family and friends. This includes travel by retired couples without children. Though economic class identity need not be ignored (see the last example below), even exotic travel in this sample is less about performing socioeconomic identity than about performing good parenting and maintaining interpersonal relations. Some examples:

Similar to last year we decided to visit two National Parks: Mammoth Cave in Kentucky and Smokey Mountains in Tennessee. At our first stop in Kentucky, the kids each bought a National Park passport book. You stamp your book at each park you see and also can participate in the Junior Ranger Program to achieve a certificate and

park badge. All parks are listed in the book and have their own page for stamps. Suddenly that changed the focus for the whole trip. We hit the road and also saw Cumberland Gap, Sleeping Bear Dunes, and Pictured Rocks National Parks. They had a blast and we learned so much.

In the summer we took some local trips, including to Soudan Underground Mine State Park (a must-see in northern Minnesota).

We also visited Arches and Canyonlands National Parks near Moab, Utah, and Mesa Verde National Park in Colorado.

...a trip to Washington, D.C. with [grand-daughters]...

...off to Minneapolis in June to attend M____'s [...] wedding...

...accompanied our long-time friends from Minneapolis on a river cruise to the Rhone Valley in April...

...we're both enjoying the new M____ Performing Arts Center at [university] (a great venue which helps provide some 'big city' atmosphere and entertainment we miss here in [state]).

The fall conference for ACTEC allowed us to go to New Orleans without the kids. We got to hold an alligator, ride segways, and eat our fair share of beignets.

Thus, these four dominant categories of Portraits, Interpersonal Connectedness, Positive Experience/Adventure, and Moral Character, work together to indicate and perform a particular sociocultural identity that itself indexes the values that constitute this particular social network as one relational Subject from which these individuals and their families draw. Socioeconomic class identity is certainly a part of this performance, but is just one relatively minor component of collective moral and ethical character being re-presented.

5.3.2.5 Photo Cards: Digital Differences

One of the research questions implied above (following Mahay, 2013) is whether there is a significant difference in content, and therefore performative enactment, that can be attributed to the use of custom photo cards available from online services. There are, in fact, some evident differences among cards and letters in total, the photo cards, and photo cards alone (without enclosed letters), as shown in Figure 6. Photo cards, of course, present photos: all of the photo cards are from families with children; all but 1 of the 9 photo cards have multiple photos; only 3 cards have photos of only children; and half of the cards feature images of travel or other activities or events in addition to traditional photographic portraits. Many of these differences can be explained by the brevity the cards require: photo cards naturally provide less room for text

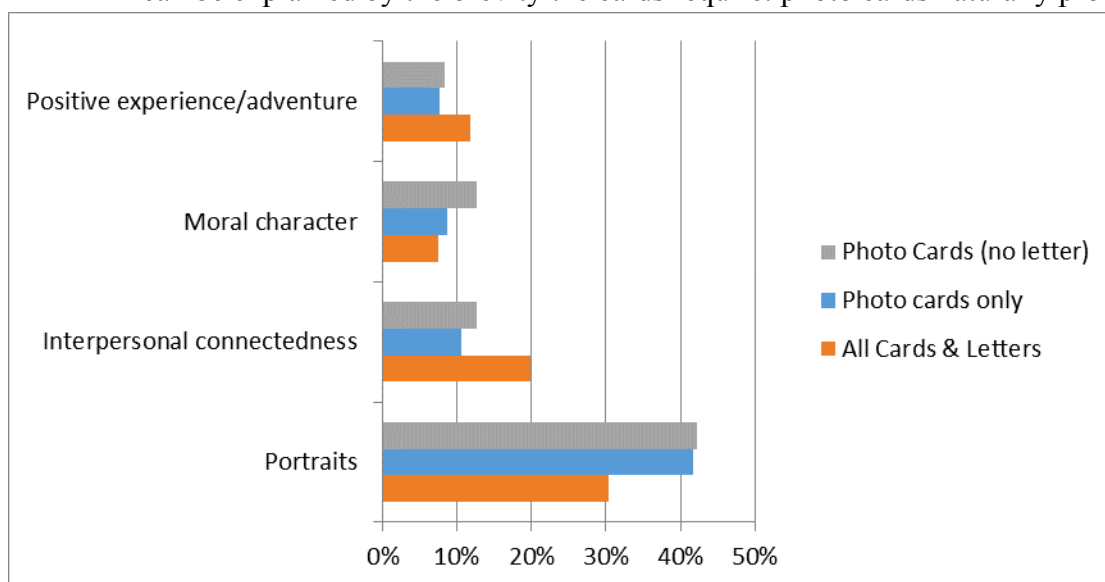


Figure 6. Comparative content analysis of 1) photo cards alone vs. 2) photo cards with enclosed letters and 3) all cards and letters.

many as the least of the conventional letters ($n=10$). Nevertheless, a letter does generally provide more content overall, as would be expected, and there are identifiable patterns in the differences between cards and letters: in photo cards, where space for text is reduced compared with the traditional letter, narratives of positive experiences and adventure tend to be sacrificed for a greater emphasis on the primary social functions of the holiday cards indicated by Interpersonal Connectedness and (discursive) Portraits (the latter making up 42% of text-tokens in both all photo cards and photo cards without enclosed letters). What is most telling, however, is the degree to which photo cards alone (without accompanying letters) emphasize Moral Character (see Figure 6). This again indicates that the primary function of holiday cards is their epideictic and phatic performance: when space is at a premium, the emphasis on Moral Character becomes even more prominent.

The sending of a holiday card and/or letter indicates, expresses, and acknowledges a social relationship (typically between or among families as collective agents). In this sense, a holiday card is a phatic performance. It is an act of signification that attempts to build, reinforce, maintain and perpetuate a set of consubstantial relations comprising a shared space of representational (ideological and doxological) values. In this sense, it is an epideictic performance whose seasonal rhythm contributes to the unifying and constitutive character of that performance. The holiday card and letter, as epideictic and phatic signification, performs the indication-*of* a particular set of representative relations, while performing the expression of (ideological) values as indication-*for* the consubstantial (or consubstantiated) 'other'. Given this 4-dimensional articulation (indication, representation, and expression over time), we can interrogate more closely any specific such card in order to better understand how (or how well) it

performs such intentional consubstantiality and discover the strength and valence of the motivations it expresses (or presents).

For example, the richest of all of the cards and letters (in terms of text-tokens) is a traditional letter with no card or photos. This single document contains more than half of the Interpersonal Connectedness tokens of the entire sample, almost half of the Positive Experience/Adventure tokens of the entire sample, and is among the most prominent of the sample in terms of Portraits, but has only 1 Moral Character text-token. However, being a ‘mass-produced’ holiday letter (computer-printed copy on holiday-themed template paper), the Interpersonal Connectedness text-tokens cannot be taken as indications-for a specific ‘receiver’. Instead, they function as indications-of the larger, co-constitutive space of social relations that ‘sender’/ ‘author’/ ‘narrator’ and ‘receiver’/ ‘reader’ share. On the other hand, it is possible (perhaps even likely) that the letter itself—specifically because it is ‘*more than* just a Christmas card’—serves to express Moral Character through its material character. This holiday letter, an autobiographical year-in-the-life narrative, emphasizing Interpersonal Connectedness, Portraits, and Positive Experience/Adventure—in the form of travel that reinforces the two previous categories—evokes and re-presents a space of representative relations with which the ‘sender’/ ‘reader’ (the family as collective entity) is taken to be consubstantial. Thus does self-expression through the holiday card as mediational means perform rhetorical (epideictic) identification as indication-for.

In contrast, the richest of the photo cards is a 4-panel card (i.e., not a postcard) with an explicit religious message and portraits of children on the front, and a family portrait on the second panel. The third panel of the card comprises a printed holiday letter that emphasizes Portraits, Positive Experience/Adventure, and Moral Character in decreasing order of

prominence. Although the amount of text in this card is nearly equivalent to that in the previously described text-only letter, it lacks the letter's emphasis on Interpersonal Connection (n=1) in favor of Portraits of the 'sending' family embedded in an autobiographical narrative highlighting travel, which again tends to reinforce Moral Character. This particular example could be considered an outlier, given the inclusion of a letter printed in the 4-panel card itself (the only one of its kind in the sample—and this is also the only card or letter in the sample with an identifiable male 'author'/'narrator'). However, if we look more closely at the next richest photo card, the general pattern holds. This is a 2-sided photo card: side 1 comprises an explicitly religious Christmas message bordered by photos of active children and family vacation photos; side 2 provides a brief Portrait of each of the family members in turn, the entirety being bracketed by short, explicitly religious holiday messages. The Portraits of the adults are particularly interesting in that they foreground professional and class identity along with indications of Moral Character (e.g., church-related activities and responsibilities). This card contains no Interpersonal Connectedness text-tokens. This particular card is thus the only one of the 12 cards and letters that could be said to correspond unequivocally to Mahay's (2013) arguments about holiday photo cards being performances of hegemonic (Christian), heteronormative, economic class identity where the happiness of children is said to index a normative ideal of happiness in general. But this cannot be said of any of the other cards or letters, or of even the photo cards as a group.

What this does indicate is that the photo card as a mediational means—even apart from its inclusion of images—at least in this social network, tends to evoke the *representative* dimension as the indication of representative relations (or the re-presentation-of *ethos* as 'code' of normative beliefs, attitudes, and behaviors) over the *expressive* dimension as the indication of

self for-another in relation to a set of shared beliefs (or the presentation of *pathos* through a shared social semiotic ‘code’ of value). Photo cards as mediational means are more iconic (more insistent on re-presenting normative metonymic relations in terms of, for example, Moral Character) than the letters, which are more indexical (more insistent on presenting the ‘narrator’ as imbricated in a constitutive set of social relations that synechdochically includes the ‘reader’). This does not entail an analytical categorization, but a recognition of the multidimensional quality of these acts of signification, which cannot be fully described or explained as simply ‘symbolic’ action which is limited to the representative and thus glosses or elides the indicative (and pragmatic) and the expressive (and indexical)—*without which there can be no symbolic* because there would be nothing to enact it or recognize it.

5.3.3 Indications of Character: Of Points and Pointings

What this analysis of a regular, ritualized, interactional activity gives us is an indication of relationally emergent motivations and intentions as social processes enacted as and through mediational means—processes which are not ‘linguistic’ (i.e., ‘symbolic’) but significatory and performative across all three dimensions (i.e., index, icon, and symbol) enacting modes of not only ‘reception’ (i.e., of ‘information’) but of perception and interaction. The individual photo card has a material character (e.g., weight of card stock, glossiness of finish, and physical size, as well as color scheme, graphical ‘style’, and number, quality, and ‘content’ of photos and images) addressing modes of perception (which, significantly, include at least the tactile as well as the visual). That material character of the photo card as a mode of interaction functions as an ‘affordance’ for the mode(s) of reception: for example, the choice of fonts may in many instances contribute to the material character of the card far more than to the ‘reception of

information’ as ‘content’ of the text—particularly when that ‘information’ comprises nothing more than ritualistic (phatic, *pathetic* [as *affect-ive*], and epideictic) holiday tropes. Similarly, the material characteristics of the card or letter contribute to its functions as a mode of interaction, which is precisely what the foregoing analysis indicated: holiday photo cards privilege the performance of Moral Character, while holiday letters privilege the performance of Interpersonal Connection. All of these processes thus work together (in conjunction with the three dimensions of signification) to indicate, in the case of this ‘medium’ or mediational means, the relative and relational motives of phatic acknowledgement and epideictic reinforcement (in which the presently acknowledged and performed co-constitutive relation re-members a past to reinforce expectations for the future of those relations) of a space of mediational mean(ing)s: Person enacts Subject through Agent.¹⁷⁵

Elsewhere (Schandorf, 2013), I have connected such processes of signification to processes of embodied interaction by employing an analogy between the signifying indications of digital text and physical gestures, specifically co-speech hand gestures. Co-speech gestures, or “the spontaneous movement of the hands that accompany speech” (Goldin-Meadow, 2003), are a universal human interactional phenomenon that straddles the boundary between conscious and unconscious activity. Even the blind make hand gestures when speaking, using gestural forms identical to those used by people with unimpaired sight, and even when talking to other blind people (McNeill, 2005). David McNeill (1992, 2005) perhaps the best known gesture researcher,

¹⁷⁵ Again, Person, Subject, and Agent are not ‘things’ or ‘objects’ or even mutually exclusive entities; they are functional processes of inter- and intra-action. A Person is not a person, but an interactional function through which motivations enact intentions. An Agent is neither instrument, object (or Heideggerian ‘thing’), nor person, but an intra-actional function through which Subject-defined/ing intentions are enacted. A Subject is not an *ethos*, an ideology, an organization, a language, etc. (though all of these perform the Subject function), but a dynamic space of relations (e.g., an assemblage) constituting a functional process defined by capacities and tendencies, which generate motivations and shape and define intentions, respectively.

limits co-speech gesture to the unconscious end of the continuum of interactional activity, describing it as “an unwitting, non-goal-directed action orchestrated by speaker-created significances, having features of manifest expressiveness” (personal communication, see McNeill, 2012). Since the 1980s, McNeill has argued that such gestures are intimately connected to the process of thought and the production of language: gesture and language are generated together from prelinguistic, dynamic cognitive processes that serve as the seed of both conceptualization and communication.¹⁷⁶

The term ‘co-speech gesture’ covers a wide range of behaviors in a variety of research contexts; however, Kendon (2004) has enumerated four basic, defining properties: 1) gesture can be executed more quickly than the spoken utterance; 2) gestures are silent, which means they can be used simultaneously with speech and/or beyond the boundaries of the immediate interaction; 3) gestures are visible, which means they can be used over much greater distances than speech; and 4), the production and reception of gesture do not require the same kind of mutual orientation among interactants as speech, and they can therefore be used successfully amidst distractions (e.g., in a crowd). These characteristics of co-speech gesture quite clearly re-present an entanglement of the modes of perception, reception, and interaction, which presents problems for drawing anything more than a rough analogy between co-speech gesture and broader forms of signification. For example, limiting co-speech gesture to the visual (mode of perception),

¹⁷⁶ As noted in the previous chapter, this argument has been supported by a variety of cognitive and neurophysiological studies demonstrating contiguous relations and activations among the language areas of the brain, the primary sensory-motor cortex, the primary auditory cortex, and several areas of activation relating to the perception and processing of the movement of others' mouths, eyes and hands (e.g., Puce and Perrett, 2003), which have also informed studies of the hypothesized human ‘mirror-neuron’ system: the *production* of both language and movement are neurophysiologically connected with the *processing* (or ‘reception’) of sound, language, and the nonverbal communication of others (e.g., D’Ausillo, et al, 2009; Devlin & Ayedelott, 2009; Meister, et al, 2007; Iacobani, 2008; Okada & Hickok, 2006).

which is also what makes them silent, means that connecting them to, for example, vocalics and prosody of the human voice becomes more of an exercise in metaphor than metonymic or synecdochic classification. Nevertheless, as demonstrated in Schandorf (2013), the predominant characteristics of co-speech gesture, namely their speed and their capacity for extending beyond the immediate spacetime of interaction (though these have largely also been entailments of their visual-imagistic character) make co-speech gestures a productive means of reorienting ourselves toward textual communication (especially digitally mediated textual communication) as interactional performance and practice. In the next section I will revisit my previous work relating co-speech gesture to digitally mediated textual interaction in order to bring this gestural understanding of interaction into alignment with the broader theoretical orientation that has been presented herein.

5.4 Mediating Gesture: Communication and signification in 4 Dimensions

Schandorf (2013) adapts Kendon's (2004) four categories of co-speech gesture plus gestural emblems to the description of text-based digitally mediated communication, illustrated with examples of microblog posts (i.e., Twitter). Reiterating each of these classifications demonstrates that they are applicable to all textual communication.

5.4.1 Deictic Gestures

Deictic co-speech gestures are indicative and indexical actions that instantiate (often implicitly or explicitly socially hierarchical) spatiotemporal relations. The paradigmatic example of the digitally mediated deictic gesture is also the paradigmatic example of online communication itself: the *hyperlink*, which 'points to' another web page or online

information/content source. Forms of addressivity are deictic functions (e.g. the @ symbol), as are other forms of relationally orienting interactants or directing attention (e.g. the hashtag).

Figure 7 demonstrates the indexical features of deixis, addressivity, and alerting. First, @carvin retweets @grace8ming's tweet, thereby addressing (and quoting) her, indicating a connection between them, and alerting and directing his followers to both her and to her originally tweeted link. The #japan hashtag also served a situationally (*kairotic*) alerting and deictic function at the time these tweets were produced, which was shortly after the Fukushima nuclear incident. The hashtag would have made these tweets available to anyone following the #japan hashtag. In the second, @kbeninato retweets a link that has already passed through a deictically indicated chain of retweets, adding an expressive and imagistic comment on the headline of the story linked to.

In Figure 8, Jason Farman quotes race and digital media scholar Lisa Nakamura



Figure 7. Addressivity and indication.



"An algorithm is ideology in executable form."
@Inakamur on the relationship between
materiality, racism, and the network. #ir14

Figure 8. Quotation and indication.

discussion of or related to the conference proceedings or ancillary activities on Twitter. This is a very common deictic use of the hashtag, which serves to bind those who use the hashtag into an assemblage of interactants. In this instance, Jason Farman is also using Twitter as a mediational means serving a reporting function for those not in attendance at Nakamura's talk, thereby indexing and binding a variety of potential audiences within the relation of tweet-er and tweet-ed.

The tweets in Figure 9 are more conventionally performative, but, as with any other performative, they are interactions and intra-actions that both imply and require, and thus implicitly indicate and index, an assumed audience as a felicity condition. Andrea Kuszewski's allusion to the film *Ghostbusters* epideictically binds that imagined (or 'universal') audience as a social assemblage in the necessity of the recognition of the allusion. The hashtag in this example is thus an iconic indicator, as indication-*of* the space of relations.



For the rest of the week, I'm going to have an auto-reply for my email that says, "There is no Andi, only Zuul."

#IAmTheGatekeeper



suzanne yada Suzanne Yada

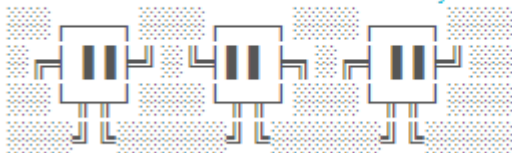
Ever since I changed my Twitter profile pic, it's been very hard for me to tweet anything that sounds like whining. I think we all benefit.

Figure 9. Indication and indexicality in digital text.

In the second tweet, @suzanne yada's avatar is both symbolic and iconic but, more importantly, self-referentially deictic allowing for a recursive tweet that, while being (self-) expressive, points to that avatar, to the person tweeting, and to the (epideictic) 'universal audience' addressed as "we."

Many of the specific affordances for gestural performance presented here are medium-specific (e.g., the retweet or other Twitter-specific references), or specific to social media forms in general (e.g., avatars, @-addressivity, and hashtags, the latter of which originated on Twitter but has since spread far beyond). However, the deictic function is necessary to all forms of communication. Linguistic deixis, of course, is a necessary functional element of all language, whether spoken or written, and thus can be identified in profusion in the holiday cards and letters as well as these tweets. But the holiday cards and letters also have a variety of deictic

affordances specific to them as a mediational means, often directly related to their previously identified interactional functions (e.g., Portraits, Interpersonal Connection, Positive Experience/Adventure, Moral Character). Common deictics in Portraits include names and nicknames, allusions to identifiable personality characteristics, ages and school grade levels, historical references, physical or geographical references, relational roles (e.g., ‘the grandkids’, ‘Mom and Dad’), and allusions to cultural phenomena that indicate personality and/or age (e.g., “She is definitely a tween, evinced by her love of Taylor Swift, The Voice and Rick Riordan books”). Deictics of Interpersonal Connectedness include the specification of relational roles (e.g., ‘the grandkids’, ‘my brother’, ‘the younger Smiths’), characterizations of relational connection (e.g., “our long-time friends,” “We miss him greatly”), and direct address (e.g., “We wish you joy, love and a wonderful Christmas,” “you and your 3 handsome young men”). Deictics of Moral Character include religious references and allusions, the naming of organizations or roles indicating moral character (e.g., “a facility for the homeless,” “the youth ministry at church,” “the school non-profit board,” “R___ became an Altar Boy!”). The material characteristics of holiday cards and letters also afford a variety of medium-specific deictics: card style or paper template can indicate a variety of moods and modalities related to the holiday ritual, as can iconography and the photos themselves. Thus the basic deictic function of communication as interaction can take a variety of different forms depending on the mode of perception, reception, and/or interaction being addressed in relation to the specific mediational means—but these are rarely distinct and are never entirely, discretely separable given, for example, the inherent deictic (attention-directing) functions of the imagistic (and the visual character of the conventional ‘gesture’).



pict, or nonverbally describe, e.g.

Figure 10. Imagistic text message.

making an hourglass shape with the hands in reference to the shape of a body or a swooping motion to describe a specific movement or event in a narrative. Emoticons, emoji, and animated gifs are digitally mediated examples, as are avatars, ASCII-text art, and verbal re-presentations of physical acts, i.e., ‘emotes’ such as <shakes head slowly>. Such linguistically performed imagistic gestures—though in slightly different form relative to their different purposes—are also common to the holiday cards and letters, in addition to the obviously imagistic character of the photos and other graphic devices utilized. The discursive Portraits of the holiday cards and letters perform an explicit imagistic function, as do descriptions of any kind, common, for example, in the depiction of Positive Experience/Adventure and Moral Character. On Twitter, like other social media, directly imagistic messages (e.g., animated gifs) are not uncommon (Figure 10).

More common, however, are textualizations (iconic re-presentations) of embodied gestural actions (which were also common to early chat rooms, MOOs, and MUDs; Figure 11).

While these are all imagistic in that they re-present physical actions, they are also obviously expressive (as indication-*for*), as should be expected (since the embodied acts they re-



ealvarezgibson Emma Alvarez Gibson
@ColinPeters HAHAAAAHA! I high-five you, sir.



kbeninato Karen Dalton Beninato
Tips hat @jclementwall



savasavasava sava
@noelrk ::slap::



jessedarling Jesse Darling
{{rolls eyes}} Will someone please tell this guy we've moved on from modernist economies? Kthxbai RT @hirstdamien no money, no art. period.



A Birdly Kiss
@theshoresofme

hugs Twitter tightly Don't ever leave me.

Figure 11. Digital imagistic gestures.

present are themselves primarily expressive)—though *what* they express is entirely relative to the situation encompassing the specific interaction (as in the underlying humor [*or IS it?* {insert menacing brass section}] of the exchange in Figure 12). Imagistic textual gestures also encompass more descriptive performatives such as the (comedic) examples in Figures 4.13.



Steve Jones
@s_t_e_v_e_jones

449

@nancybaym sending threatening look now



Nancy Baym
@nancybaym

@s_t_e_v_e_jones shaking fist at you

Figure 13. Ironic imagistic digital gesture.



Ottering: waking up, holding your iPhone in both hands as you lie on your back, checking e-mails & texts, looking for an oyster of hope



CrankyKaplan CrankyKaplan
RIDING SEGWAY TO THE MALL DRESSED AS AN ANGRY FAT
NAKED GUY. FUCK YOU.

Figure 12. Humor and digital imagistic gesture.

5.4.3 Expressive Gestures

Expressive co-speech gestures are actions that express or indicate emotion or state of mind, such as pumping a fist in anger, pride, or enthusiasm; a shrug; a raised eyebrow; or tone of voice or vocal emphasis. Digitally mediated forms of expressive gesture include the

manipulation of text for emphasis, as with all caps (or italics or font size, etc.), punctuation (e.g. exclamation points, ellipses), letter repetition and vocalic spellings, as well as interjections, profanity, and other expressive language.

Avatars, emoticons, emoji, and other images or graphic manipulations also serve directly expressive functions in addition to being explicitly imagistic. We can recognize expressive elements in nearly every example already given in this section, e.g. the emoticon in Figure 4.3, the asterisks for emphasis and the specification of the (expressive and imagistic) “*Headdesk*” in Figure 7 (similar to the expressive re-presentations in Figures 11 through 13), the interjection and exclamation in Figure 11, and the all-caps in Figure 13, as well as the humor of Figures 12

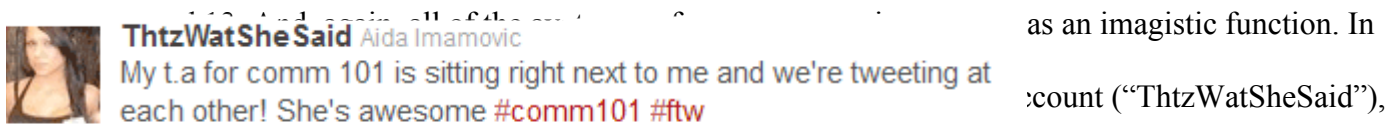


Figure 14. Digital expressive gesture. The tweet includes a linguistic interjection (“ThtzWatSheSaid”), an exclamation point, and the emblematic hashtag (#ftw, an acronym for ‘for the win’, an emphatic rather than indexical gesture, which is also the opposite, both visually and verbally, of ‘wtf’).

Figure 15 is predominantly expressive, performed through what Banks et al (2000) would have classified as discursive Portrait and the indexing and deictic orientation of the author in relation to the other characters in the tweet’s narrative, along with an expressive self-portrait (which all self-portraits must necessarily be).



Lili Loofbourow

@Millicentsomer

451

Interpreting at med. appointments is harder when the doctor's a dense jerk & the patient can't read or write. I'm becoming a cultural mime.

Figure 15. Deixis and indexicality in expressive digital gesture.



Fact: Presentation technology at MIT never works. EVER. Because it's A JERK. #MIT8



Figure 16. Emotional expression in digital gesture.

indexed by the hashtag) for whom the message content will also be humorous (series of tweets should be read from the bottom up).

on, respectively,
logy conference,

In Figure 17 we have a holiday tweet, fulfilling a set of functions similar to those of the holiday cards examined above. Social media and digital-text elements are applied to perform



Sajie Sajeda Al Asfoor by acarvin

Happy Nowrooooooooooooooz! <3 It's anything but happiness right now, but just thought of wishing one for all. :)

n (exclamation point),

Figure 17. Expressive indexicality in digital gestures.

Figures 18 and 19 utilize more of the specific affordances of expression common to social media platforms in addition to emphatic and expressive language, including all-caps for emphasis, punctuation, letter repetition, an emblematic hashtag, and emojis, which also perform as expressive rhythmic function. Figure 20 is entirely expressive and abstractly imagistic.

While expressive gestures are common to digital text, they are common to non-digital text, too, despite the typical assumptions about ‘literacy’ in contrast to ‘orality’. In the holiday cards and letters, expressive language and what we can now describe as textual gestures are common, particularly in Portraits and narratives of Positive Experience/Adventure:

“When looking for a roommate he says, he is neat. (WHAT?)”

“W___ started the first grade and has not gotten into too much trouble. :)”

“E___ is in 4th grade and is still pinkalicious!”

[illegible][illegible]

Figure 19. Wholly expressive digital gesture.

“...every time I say ‘Who wants to walk around Lake ____?’ N____’s arms shoot into the air and he says, ‘Me!’”

“...She took care of the horses, led the steep (!) trail rides...”

“I am utterly terrified of driving along sheer cliff-sides [...] It makes me sick just thinking about it.”

“Wishing you and your delightful boys a joy-filled Christmas!”

In the photo cards specifically, the photographic portraits and many of the other images, graphic elements, and material characteristics also function as expressive, as well as deictic, gestures (compare Jaworski & Thurlow, 2010, 2011; Thurlow & Jaworski, 2013).

5.4.4 Rhythmic Gestures

Rhythmic gestures in face to face interaction are motions that explicitly “mark out, punctuate or [...] make reference to the structural aspects of discourse, either in respect to its phrasal organization or its logical structure” (Kendon, 2004). A common rhythmic rhetorical gesture is to mark out prosody or points of emphasis with the index finger (e.g., Bill Clinton) or the fist. In the holiday cards and letters, rhythmic gestures are subtle and limited to the graphical, e.g. the arrangement of images designed to (for example) evoke or reinforce Moral Character. In digitally mediated text-based communication, punctuation is often used to perform rhythmic and structural functions for the purposes of emphasis and emotional expression (e.g., “Do. Not. Care.”). Remembering that rhythm performs a unifying function, rhyme (for example) can also be understood in terms of rhythm (and vice versa), as can prosody, sentence structure, and paragraph structure. And, of course, the actual temporal execution of digital text messages can perform a conventionally rhythmic and expressive function (e.g., Walther & Tidwell, 1995). While certainly not unknown, explicitly rhythmic tweets, for example, are not as common as

many of the other gestural forms, but often serve or contribute to expressive functions, as in Figures 19 and 20.



acarvin Andy Carvin

This. Is. Genius. Ben Ali, Mubarak and Gaddafi, as interpreted by Angry Birds. <http://tnw.co/dNDPj0>

5.4.5 Emblems



Suzanne Yada ✓

@suzanneyada

Phone. Out. Of. Power. :/



dr henway

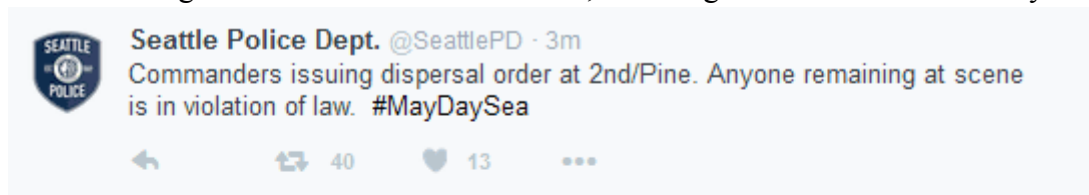
@mikedelic

data data everywhere and not a thought to think

Figure 21. Rhythmic digital gestures.

In gesture and sign language studies, emblems are formal, culturally specific, non-verbal expressions, usually of the hands, that tend to be excluded from the formal study of co-speech gesture because they can often be directly translated into verbal equivalents and therefore function more like formal linguistic symbols (and the signs of sign language) than paralinguistic ‘signs’. People always know when they have performed a non-verbal emblem and often do so in an attempt to control the behavior of others. Common Western examples include ‘shush’, ‘thumbs-up’, ‘okay’, the middle finger, and can be found around the world in “a host of other hand movements, many of which have unprintable meanings” (Goldin-Meadow, 2003, p. 5).

Digitally mediated emblems can include LOLs, acronyms, some emoticons and ASCII art, as well as iconic hashtags and expressions such as “#FAIL.” The conference hashtags in Figures 8 and 16 function as emblems to the extent that they index the conference as a space of relations, into which they serve to channel conference-related interaction. Holiday messages and explicitly religious messages function similarly in the holiday cards and letters (especially in pre-printed, iconographic forms) to reiterate the Moral Character of the ‘sender’ and reinforce that character in the ‘receiver’. In Figure 11, “Kthxbai” is a wonderful dismissive emblem, much like the “FUCK YOU” in Figure 13 (and 22), as well as the hashtag in Figure 22. The “#ftw” hashtag in Figure 14 functions as an emblem, as do Figure 18’s “#StuffICantSayOnFacebook” and Figure



Anonymous

@YourAnonNews

.@SeattlePD fuck you



David Golumbia

@dgolumbia

Well the responses so far certainly could have been written by the machines digital humanists identify so strongly with [#hearditalbefore](#)

Figure 22. Digital emblems.

5.4.6 **Phatic Text & Motivated Indication: Gestural Mediations & Interactional Functions**

In Schandorf (2013) I argued that the interactional functions these gestural categories represent are means of phatically generating and maintaining relations in interactional processes commonly discussed in terms of ‘co-presence’. In this sense, gestures—whether digitally mediated or not—are deeply phatic and epideictic, and the above discussion of gesture, deixis, and ‘paralinguistic metacommunication’ both supports this argument and reinforces the fact that *all* communication as interaction is grounded in such phatic functions, i.e. the ‘transmission’ of ‘information’ is not possible outside of a constitutive, if dynamic, space of relations. Complaints about the phatic character of social media thus ignore the phatic character of interaction in general, and are typically rooted in the privileging of the written word (along with all of the idealistic/dualistic, hierarchical, and gender, class, and cultural bias that comes with that privileging). *Of course* social media communication is heavily phatic (it is, after all, interactional and therefore ‘social’), and it is so in many of the same ways as the holiday cards and letters in the previous section. A comparison of the Banks et al (2000) coding categories with recent typologies of microblogging content are revealing (Table 3). If we were to remove the technology- or medium-specific categories from the microblogging analyses, all of the various microblog content categories could be fairly easily collapsed into Banks et al’s 6 notional categories.

2. Comparison of holiday card content with microblogging content.

Louie, & Einerson (2000): Content categories of holiday letters		Mischaud (2007): Twitter typology	Honeycutt & Herring (2009): Twitter content themes	Oulasvirta et al (2010): Microblog themes on Jaiku	Naaman et al (2010): Twitter message categories	458
Categories	Notional Categories					
tive rience/ ntire tic/busy life : have eved raits [both ative and to-inclusion] e rpersonal ictedness tive news news are/weather al character ific plans mpt at ior nge of/ ionic status	<ul style="list-style-type: none"> • Achievement • Adventure • Interpersonal exchanges • Moral character • Mundane news • Time 	<ul style="list-style-type: none"> • Family & friends • Personal • Information • Technology • Small talk • Work • Activity • Miscellaneous 	<ul style="list-style-type: none"> • Self-reference • Announce/advertise • Exhort • Inform others • Inform self • Metacommentary • Reports of media use • Opinion • Reports of others' experience • Reports of self experience • Requests for information • Miscellaneous, e.g., greetings, "nonsense" 	<ul style="list-style-type: none"> • Activity: doing, place, moving, happening • Experience: opinion, state, intention, emotion, self-attribution, want/desire/need, obligation, thought • Informational: factual claim, forecast, date/time-of-day, weather • Conversational: question, greeting, direct addressing • Jaiku-related • Link-sharing 	<ul style="list-style-type: none"> • Information sharing • Self-promotion • Opinions/complaints • Statements and random thoughts • Me now • Questions to followers • Presence maintenance • Anecdote (me) • Anecdote (others) 	

The ritualistic character of the holiday cards is explicit in their mediational form: their instantiation as ritual action is what motivates their existence and performance (which is why explicit holiday messages are relatively rare as 'content' in such cards and letters apart from pre-printed 'happy holidays' or 'merry Christmas' icons/emblems or as message openings/closings: they are not strictly necessary, they re-state the obvious). Social media communication as whole does not perform the same strictly culturally ritualistic imperatives; however, as discussed above, studies of phatic communication have emphasized the ritualistic character of all conversational interaction (particularly in the emphasis on greetings, conversational turn-taking processes, and conversational closings). For this reason, while the close connection of social media with other interactional phatic and epideictic forms (such as the holiday card) remind us that the phatic is not something 'new' to 'new media', the 'ritual' characterization does little to help us understand

mediated interaction other than remind us that all interaction occurs within a particular ‘context’ (or set of ‘contexts’), interpreted at a particular level of abstraction (or in relation to a gradient of abstraction or interactional order), for a particular purpose (or set of purposes): Persons enact Subjects through Agents, and the epideictic and phatic are functional interactional processes binding them together. The phatic, in particular, can be understood to mediate the various binaries identified in Figure 4 under the labels of *kairos* (performed as *indication-for*) and *chronos* (performed as *indication-of*).

The five gestural categories are illuminating in that they resist the notion that digitally mediated interaction is somehow of a different logical order than other modes of human interaction, and thereby resist the novelty fetish of much digital and ‘new’ media studies, by understanding mediated communication in direct relation to embodied physical interaction. However, they may be of limited value on their own, particularly because (like the co-speech hand gestures they re-present) they are deceptively analytical distinctions that make it easy, and therefore tempting, to assign a given ‘sign’ or ‘gesture’ to one specific gestural category and ignore the fact that (as was repeatedly indicated above) signification is multidimensional intra-action: every ‘sign’ enacts all three dimensions of index, icon, and symbol to some extent, and any given sign is perfectly capable of simultaneously performing several of the functions indicated by these seemingly distinct categories of gesture. ‘Coding and counting’ is therefore of very limited—even limited descriptive—value, largely *because*, as a method, it is perfectly consistent with the typical reductive conversion of inherently dynamic language (as ‘text’) into static ‘data’ in the process of generating the re-presentations of ‘information’.

However, the strongest entailment of using ‘gesture’ as a theoretical concept in this way is the emphatic insistence on the dynamics of interaction. Gesture is movement, performed,

perceived, and received in interaction. Understanding language as gestural (rather than gesture as an attenuated linguistic or symbolic) foregrounds the basic, fundamentally indicative and interactional character of communication—gesture is not ‘paralinguistic’; language is a complex form of indicative, expressive, and representational gesture that presents, re-presents, and represents a signifiatory movement from motivation to intention. The theoretical orientation developed in Chapter 3 (and diagrammatically articulated in Figure 4) provides a structural representation of the three dimensions of communication and their relations to motivation and intention. A reorientation from the static ‘text’ toward the functional dimensions of interaction (in which the broader concept of gesture is understood as the indication of motivation and intention) allows a better understanding and potential application of their dynamics to the investigation of interaction in whatever imbricated modes of perception, reception, and interaction.

A brief reiteration of the functional relations of these dynamic processes: the fundamental interactional dimension of *indication* pragmatically enacts the Agent function in, on the one hand, the *intentional* indication-*of* the situationally evoked Subject and, on the other hand, in the *motivated* indication-*for another* as the expression of the Person. The former (indication-*of*) can be described as a rhetorically forensic function: what happened or has happened, as construed and made meaningful (e.g., ‘evident’) by a defining space of relations (i.e., Subject), shapes what can happen in interaction (the limits of the Agent’s potential influence on the confluence) as the iconic-metonymic re-presentation of the defining and bounding tendencies (i.e., the intentions-*of*) the Subject. In this way, *intentional* actors, performing the Agent function, propagate the entelechy of the Subject function by enacting the assemblage’s tendencies generated from its capacities. The latter aspect, intention-*for another*, is a rhetorically deliberative function: what is

or has been, again as construed and made meaningful by a defining space of relations (i.e., Subject), expresses an affective relation among interactants: one actor indicates a shared territory of meaning for another(s), a dimension of interaction that requires at least some (even if implicit) awareness of both ‘self’ and ‘other’ and of the mutually constitutive relations thus generated and enacted. This awareness is inherently rhetorical: in defining our shared space of relations I insist not only upon a particular definition of what is and has been, but upon what *should be* going forward; it is, in Kenneth Burke’s terms, ‘hortatory’. The dimension of *expression* thus enacts the Person function as indication-*for another* in the indexical-synecdochic presentation of a *motivating* and situationally defining (semantic) territory of meaning (i.e., Subject). Finally, the Subject function is enacted in the dimension of *representation*, in the generation of a dynamic space of relations that serves to orient interactants and authorize situationally relevant (i.e., territorialized, symbolic-metaphoric) ‘meaning’ and to instantiate (syntactical) assumptions and expectations that guide, and for strictly intentional actors determine, ongoing interactional processes. The relation between Subject and Person thus enacts a rhetorically epideictic function, *motivating* consubstantial identification (and the inherent, dialectically defining divisions) from within a shared space of relations. Thus, both Person and Agent mediate and are mediated by the situationally relevant Subject. However, while the Agent function is bound to a specific Subject, the Person function can, to at least some situationally and interactionally determined extent, choose from among available Subjects and generate new potential Subjects in acts of novel combination.

This picture, however, even with the consideration of temporal development (in, for example, the distinction between *chronos* and *kairos*) leaves us with a rather static schema, a set of relations that begs for exactly the kind of ‘coding and counting’ categorizations that I have

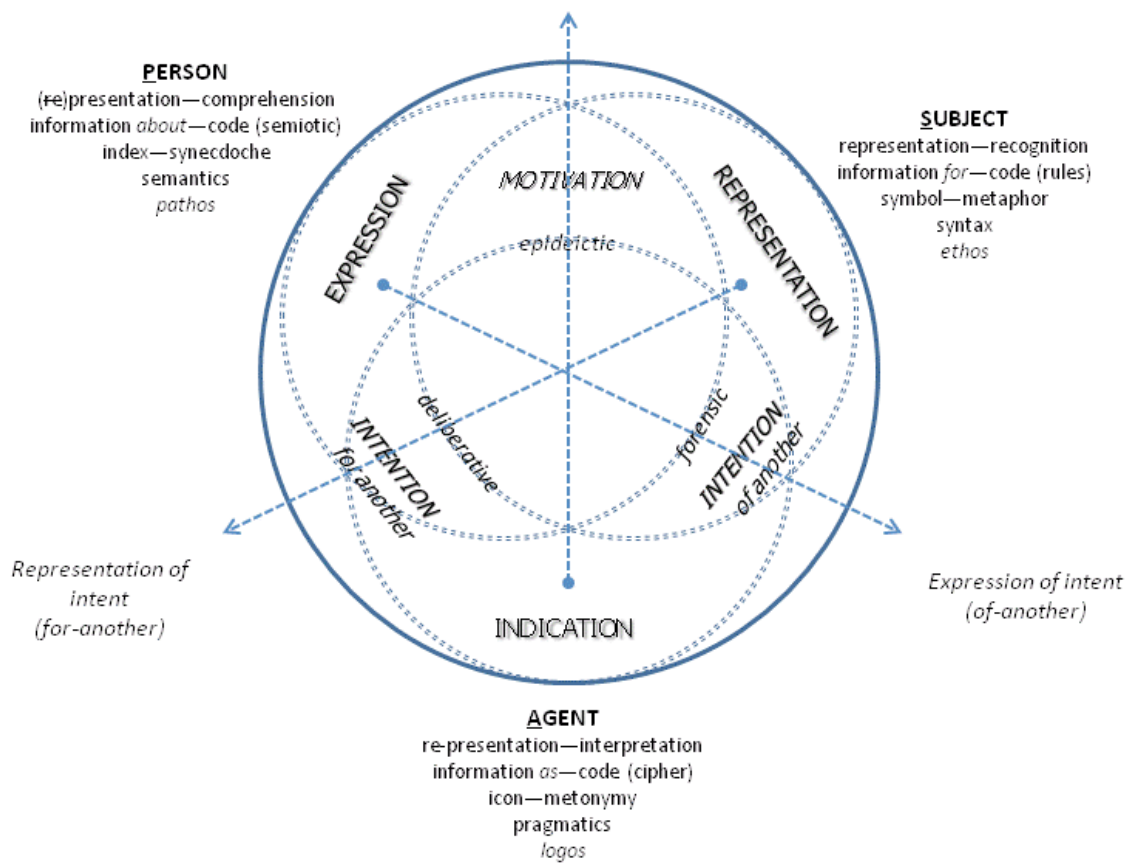


Figure 23. Dimensional vectors of interaction.

been arguing against, and that the process of indication itself (as gesture as movement in time) motivates against: the immediately expected reaction is to demand how one defines and identifies a Person, Subject, or Agent—which is to ask how to reductively ‘thing-ify’ and methodologically operationalize these dynamic interactional processes. To better illustrate these interactional dynamics, Figure 23 adds another dimension to these relations by which we can better understand their dynamic gestural character. The Figure presents three vectors that more deeply relate the three functional dimensions of interaction to the dynamic processes of motivation and intention: 1) the *indication* of motive, 2) the *expression* of intent, and 3) the *representation* of intent. One thing that quickly becomes apparent is that the categories of co-

speech gesture do not neatly align with these vectors, despite the terminological similarities that might lead to the assumption that ‘expressive gestures’ are *expressive*, ‘deictic gestures’ are *indicative*, and ‘imagistic gestures’ are *representative*. However, the ‘deictic gesture’, as described above, is not represented by the vector of *indication*. The ‘deictic gesture’ is indexical—it is thus *expressive* of interactional relations as defined by a dominant Subject function, presenting a motivated *expression* of intent. In contrast to the motivated actor, the intentional actor need not necessarily have a socially and relationally defined deictic origo from which to index a recognized ‘other’ or relation to that ‘other’: the virus has no ‘I’, no ‘me’, it acts as Agent—in *indication-of* not *expression-for*. Similarly, the ‘expressive gesture’ is pragmatic—it indicates/presents both motive and intent for-another (even if that ‘other’ is an ‘I’ to its ‘me’). Thus the ‘expressive gesture’ is affectively *indicative* of motive. The ‘imagistic gesture’ cuts across these functional vectors, demonstrating the reductive weakness of analytical categorization. The concern here is not with what a ‘sign’ ‘is’, but with what it is *doing*. An ‘imagistic gesture’ may be more indexical and *expressive* or more iconic and *indicative*. The form is less important than the function—and, importantly, the form can only be productively interrogated in relation to function(s). ‘Rhythmic gestures’ and ‘emblems’ are similarly multifunctional, the former being expressively emphatic and/or temporally indicative (and serving a unifying function), and the latter being expressively emphatic or indicatively iconic while being metaphorical and symbolic (i.e., emblematic).

None of this is to imply that we should or can eliminate analytical categorization. It is to remind us that analysis and synthesis form an indivisible dialectic. Ignoring one side of this dialectic doesn’t make it go away. A narrow focus on the analytical simply relinquishes all meaning-making process to the Subject function for which the analytical method acts as Agent

(and leads to Garfinkel's fallacy of imposed order). However, analytical methods can help us to better understand interactional processes when we take them as indicative-of particular Subjects, thereby providing a means of 'mapping' the dynamic borders of those territories of meaning. In some cases, these borders will be quite clear. In the holiday cards and letters, Banks et al's (2000) grounded theoretical coding provides a means of analyzing and then re-synthesizing the indications of this ritual form's territories (e.g., Portraits, Interpersonal Connection...). The co-speech gestural categories allow an integration of the non-textual (e.g., 'multimodal') indications with the 'text-tokens' to better understand how 'verbal' and 'non-verbal' meanings function together. (If they do not function together, that contrast itself provides a further object of investigation and resynthesis in terms of its *indication* and *expression* of contrasting or competing spaces of *representation*.) The comparison of the more recent photo cards illustrates the dynamics of this ritual space as its boundaries shift over time and in response to shifts in available mediational means: changes in the media ecology (e.g., the ambient connection or affiliation of social media and other ICTs) make 'news' and 'accomplishments' less necessary to the relationally orienting holiday card ritual, while bringing the performance of Moral Character even more strongly to the fore. These latter aspects reveal the intentions-of the active Subject, performed as a social and ideological assemblage, in the motivated intentions-for of the families exchanging these cards in the ritualized domestic labor of 'kin and quasi-kin network maintenance'.

The ritual character of the holiday card as a mediational means makes it a simple and straight-forward example because the active Subject being mediated is directly implicated: they are *holiday* cards. The 'kin and quasi-kin networks' being maintained are, almost by definition, reciprocal networks, meaning that their boundaries (in terms of the collective actors involved as

‘nodes’) are or can be fairly clearly defined. In less obviously ritualistic and more mundane interaction, such as non-reciprocal social media networks, this is not as simple or straightforward—and may be impossible: even if an addressee is specified, there is no way to know who actually *saw* and *read* any given tweet, which is not indicated by lists of ‘followers’ any more than by the identification of ‘respondents’. Tweets are extractions from potentially much larger and much more diffuse conversations that are not bound to any specific ‘medium’. So, for example, while the arbitrary examples of mediated gesture on Twitter can help to illustrate the indicative character of interaction, the indication-of that such interactions perform is more difficult to delineate. The holiday card is a highly ritualized mediational means that performs a spatiotemporal and socio-ideological orienting function, and like any mediational means it is an instantiation of its constitutive ‘context’ (i.e., Subject). The social media post is also an instantiation of its Subject, but there is far more burden placed upon the tweet, for example, to carry its own ‘context’ and far greater assumption (and performance) of ‘universal audience’.

Attention to the gestures comprising the post can provide clues to that ‘context’. Social media is often understood (and derided) as primarily a means of self-presentation (as if the holiday card or even the academic dissertation, for example, were not), but self-presentation requires a ‘self’-defining Subject and assumes a (Subject-constituted) ‘universal audience’ against which that ‘self’ is constructed and defined as indication-for. Figure 9, for example, especially as a spatiotemporally decontextualized message pulled arbitrarily from the ether, seems to be relevant to nothing in particular. Part of the missing ‘context’ is that this particular tweet was published shortly after the announcement of a re-make of the film *Ghostbusters* with an all-female cast, and was part of the subsequent ‘collective effervescence’ on social media

evoking the original film. This ‘collective effervescence’ is precisely the Subject, the ‘confluence’ of mediational mean(ing) into which this tweet is acting as mediational means of motivation and intention through indication, representation, and expression. In this particular case, the intent is phatic in the sense that it presupposes a ‘universal audience’ familiar with the film and thereby capable of recognizing the allusions. It is epideictic in the privileging of those allusions and the implication that such recognition constitutes the reader as part of the rhetorically identified audience. These are the functional *indications* of motive in the sense of ‘motivations’ as socially and relationally constitutive of Subject and thus identity. In this way, they are also *expressions* of intent that identify the ‘author’ in relation to the ‘collective effervescence’ of this Subject, or in other words, *represent* those intentions for co-constitutive others. Figure 22 works in a very similar manner, though within a very different ‘collective effervescence’ indicated by #hearditallbefore. In this case, the author of the tweet is commenting on negative reactions to an article he co-authored in the *Los Angeles Review of Books* (Allington, Brouillette, & Golumbia, 2016).

One might argue that this analysis is only possible because of my own familiarity with these ‘contexts’, a familiarity that I bring to the analysis for re-synthesis. But this is no different from anything else. Why would the same argument not be made in the case of the holiday cards and letters? Because we all already know what a ‘Christmas card’ is (and if we didn’t we would not be able to collect and study them). An outsider with no exposure to the holiday and its rituals will be able to make as little of the imagistic-iconic ‘happy holidays’ gestures as the person who has no idea what to make of “#IAmTheGatekeeper,” an emblem unlikely to be captured in any ‘big data’ collection of, for example, ‘tweets related to *Ghostbusters*’—and even if it was, the constitutive relations would be tenuous at best (which is even more applicable to

“#hearditallbefore”). This is precisely why Bateson and the early cyberneticists recognized the importance—the inevitability, necessity, inescapability—of ‘metamessages’. But again, these messages are not ‘meta’—they are *constitutive*. Understanding communication as interaction thus depends not upon precisely defining the ‘points’ as ‘signs’ as ‘information’, but upon determining the constitutive territories of relations by which and within which meaning is enacted as the dynamics of motivation and intention.

Another example, involving a different set of mediational means, illustrates the constitutive character of ‘context’ and processes of interactional territorialization by which meaning is enacted. Shortly after David Bowie, one of the most influential rock musicians of the 20th century, passed away at the end of January 2016, Dave Grohl (founder and leader of the band the Foo Fighters and drummer for the band Nirvana), along with Foo Fighters’ bandmate Pat Schmeier, filmed a video for Playboy.com in which they drive around Los Angeles (in an old Ford Bronco with Bowie’s mid-1970s era lightning bolt logo painted on the hood), pointing out and talking about several of the places where Bowie lived, worked, and hung out in the city in the mid-1970s (video available from Voyce, 2016). A detailed description and explication of the entire video could illuminate a wealth of gestural elements in terms of visual and audio ‘modes’ of reception and interaction (e.g., the imagistic gesture of the lightning bolt logo) that, for example, serve purposes of spatiotemporal and cultural orientation, but I will focus specifically on one narrative at the end of the video because it involves the comprehension and interpretation of specific acts of self-presentation in digital text. At the end of the video, Grohl and Schmeier go to the Rainbow Room restaurant where Grohl tells a story about a recent email conversation he had with Bowie:

Dave Grohl: Did I ever tell you about my Bowie email exchange?

Pat Schmeier: No, tell me about that Bowie email exchange.

DG: We played at his 50th birthday party at Madison Square Garden, and that was the last time I saw him. So that was in 199...7? About 2 years ago, I got approached by [the producers of] this movie to do a song for the movie. So I thought, maybe I'll have someone else sing. I'll do the music and then have another vocalist. And I thought, well, maybe I'll ask and see if David would want to do it.

PS: God, that's reachin' high man.

DG: I know. So the next day I get an email, and it says, "David... I watched the movie, and I've got to be honest, It's not my thing." He said, "I'm not made for these times. So, thanks, but I think I'm gonna sit this one out." And I thought, "Ah, man. What a bummer." So I immediately email back and say, "No worries, I totally understand. I hope you're well, and I'll see you around." And I hit send and in, like a minute and a half, I get an email back from him. And it says, "Alright, well, that settled then. Now fuck off."

PS: [chuckles]

DG: And I'm like, whoa.

PS: [laughs]

DG: Is he kidding?! I couldn't tell! So I emailed back. I said, "Well, I guess I'll see you in another 16 years." And he immediately sends one back and says, "Don't hold your breath."

PS: Oh.

DG: So I send back one that says, "What, no more birthday parties at Madison Square Garden?" And he writes back, "No more birthdays. I've run out of them."

PS: Dark.

DG: But then he wrote, “But that was a really fun night, wasn’t it?” And I didn’t think about it until recently when he passed away. It kind of made me wonder, looking back at everything, if he felt like maybe he... he was running out of birthdays, you know. And to not hold your breath.

PS: He meant it.

DG: Kinda. It trips me out now, but I think about it. But he would also do things like email me in March and say like, “Well, happy new year.”

PS: [giggles]

DG: [chuckling] Three months too late.

This story works for present purposes for a number of reasons: it is a performed narrative that re-presents a textually mediated interaction that involves the (expression of the) struggle to determine motive and intent through the determination of the appropriate Subject by which the messages (from Bowie) have been performed and are thus to be interpreted. Critical to the understanding of the video and its ‘meaning’ is the shared or assumed Subject common to Grohl, Schmear, and the viewer (as member of a ‘universal audience’). The fact that the story involves rock stars is what makes it helpfully illustrative for present purposes, and what made it very popular on social media upon its publication: celebrities with well known personalities provide a ‘context’ for us (here in this dissertation) just as they do for the intended audience of the video. Specifically, both Grohl and Bowie have reputations for being very nice people with very good senses of humor. Many of the retrospectives of Bowie following his death at the end of January 2016 emphasized his being ‘a perfect or consummate gentleman’ as well as his penchant for ambiguous wordplay, and Grohl’s story indicates and indexes these well known characteristics as representations and expressions of intent and motive. Grohl, for his own part, is known as a

supremely approachable, down-to-earth ‘fan’s fan’, and that element of his own character is indicated in the video as Grohl and Schmeier play ‘fanboys’, paying homage to Bowie through the re-presentation of his earlier spatiotemporal presence in the Los Angeles they currently occupy. The well known personalities of both Bowie and Grohl indicate the relevant Subject as a space of shared assumptions and expectations for those watching the video who are able to relate to Grohl’s reaction to Bowie’s out-of-character email message (“Is he joking?!”) because of both Bowie’s well known reputation and Grohl’s own. The email exchange itself precisely illustrates the interactional processes of enacting and interpreting ‘context’ by which a message is made ‘meaningful’—the search for the relevant and appropriate Subject by the ‘reading’ of the ‘signs’ (and Bowie’s likely intentional, darkly playful, ambiguity). Bowie’s final “But that was a really fun night, wasn’t it?” eventually provides an indication of tone—or interpretive key—to the exchange, but the actual (‘contextualizing’) meaning (in relation to the relevant ‘level of abstraction’) embedded in the exchange (the underlying ‘purpose’) only becomes apparent to Grohl (and thence to us) once Bowie has passed away and his struggle with cancer become known.

The Subject of both the narrative and the video itself comprises the spacetime of the ‘collective effervescence’ surrounding Bowie’s death, and particularly the realization of Bowie’s awareness of his impending death. Just days before his passing, Bowie released an album entitled *Blackstar* in which themes of life and death are prominent—it has been widely interpreted as his ‘going away’ album. Using this album and two music videos of songs from the album, Bowie, who was perhaps most celebrated for his intermingling of ‘art’ and ‘life’ through the manipulation of ‘personality’ and ‘character’, made art of his own death. His fans, many of whom included musicians such as Grohl, were understandably astounded at this ultimate

performance, as they (we) grappled with both Bowie's death and his own reflexive artistic comment on it. Grohl's video is a part of that grappling, that 'collective effervescence' of celebration and mourning. It serves to spatiotemporally orient Grohl and Schmear (and others who appear in the video) in relation to Bowie, and thus phatically and epideictically (affectively) orient the viewers to and through them both. The narrative, then, is epideictically and, specifically, temporally orienting as a 'beat' in this 'collective effervescence' that unifies Bowie, his affective and artistic legacy, Grohl and his network of musicians, and fans by allowing Grohl (the 'superfan' and 'fan's fan') to stand in for the viewer in his personal—though still presented as distant—relation to Bowie. Grohl, in fact, had already performed a similar function in the television series *Sonic Highways* in which his band the Foo Fighters travels to different US cities; each episode comprises a short documentary of the musical history of the particular city culminating in a new Foo Fighters' song and music video inspired by that history. In the Bowie video and narrative, Grohl, as Person, thus collects a variety of 'contexts', social roles, and motivations (Subjects), performing as Agent through mediational means of video, narrative, and email (*inter alia*), into the confluence of the 'collective effervescence' (the dynamic Subject) surrounding Bowie's recent death and his continuing artistic legacy. Thus, much like the seemingly 'context-less' and 'merely phatic' social media post, this video and the narrative it contains perform a socially relevant function for those co-constituted in the confluence of its Subject.

These same processes can be demonstrated in a more mundane example: a recent Facebook conversation involving several participants concerning celebrity Kanye West (Figure 24). The exchange begins with a post by a writer, musician, and teacher that is identifiably phatic and epideictic, explicitly questioning his own relation to cultural shifts in American popular

ry 20 years or so African Americans have to invent a new kind of music
ause the old music has been appropriated by white people. Kanye West
ht be doing that right now, but I can't tell. His music sounds weird to me,
I don't understand the aesthetic parameters. Which I think means I'm
ially old now.

like Comment Share

and 25 others like this.

are

He's no doubt a huge pain in the ass and a spoiled brat.
Whether or not he's also a genius remains to be seen

Like Reply 3 16 at 3:05pm

I don't think he's a genius. I do think he's a
shrewd opportunist. And his Mama overplayed his self esteem.

Like Reply 16 at 9:15pm

to me Kanye is one of those "love the art, hate the
person" types. Since he's never done anything to hurt me personally I'm ok with
him. I liked his first few albums, he lost me for a few years but I thought
Beautiful Dark Twisted Fantasy was excellent, and Watch The Throne with Jay-Z
was very good too. For some reason I never got around to listening to Yesus,
but generally his music's approved. I can ignore the fact that his and
Hitler's quotes are hard to tell apart.

Like Reply 16 at 3:14pm

Not a genius. He's an idiot. If anything good comes out of him,
it's because he paid someone.

Like Reply 3 16 at 3:17pm

He's overrated because people love hubris.

Like Reply 2 16 at 3:22pm

Kendrick Lamar's performance on the Grammys made me
think the same thing.

Like Reply 2 16 at 3:26pm

I love Kendrick Lamar.

Like Reply 1 16 at 4:30pm

He is exactly the right artist for the current generation.
Belligerent, loud, ignorant to everything that isn't about himself. Every song is,
"Look at me! Look at all my shit!"

Like Reply 6 16 at 3:35pm · Edited

Could not possibly agree more.

Like Reply 16 at 4:03pm

Well spoken!

Like Reply 3 16 at 3:35pm

He used to be talented. I believe he lost his mind when his
mom died. His marriage to Kim hasn't helped.

Like Reply 3 16 at 3:55pm

This^{AAA}

Like Reply 16 at 5:15pm

I thought he was having some kind of seizure at the end of his
Saturday Night Live set. But I may also be getting old.

Like Reply 2 16 at 3:58pm

Who the hell is Kanye West? Should I even care?

Like Reply 16 at 4:03pm

He can't sing. I think that really bothers him. His production
and beats are great. But at the end of the day he is not a singer. Keeps him up
at night.

Like Reply 4 16 at 4:12pm

21 Grammys. You heard that, right? 21. Quincy Jones has maybe
two more than that. I can't actually force myself to get through one...ONE of his
"songs" because of the bad self-centered dialogue, the tropes of already-
been-done, the terrible singing, and the permeated auto-tune, but hey...21
Grammys ain't no accident I'm painfully sad to say.

Like Reply 16 at 4:16pm

He may be culturally nuts but he's important. Some
of his stuff is great. I'm not kidding. I love this post, I do not, however, love
you for missing Jeopardy! today. Still, I adore you.

reminds me of a song

Like Reply 1 16 at 4:38pm

Damn, you are smart. Mean, but smart.

Like Reply 16 at 4:49pm

Its called you have taste and Kanye sucks.

Like Reply 3 16 at 5:41pm

He is creating a new genre. It's called, "Plop."

Unlike Reply 2 16 at 7:15pm

A conversation I had with musicologist Christopher R.
Weingarten, who is not on Facebook:

Me: Is Kanye actually a genius but I don't understand because I'm officially old
now or is he actually just a huge pain in the ass? Serious question.

Christopher R. Weingarten: He is the best and most important musician of the
last 15 years, hands down AND he is a huge pain in the ass.

Me: That's what I was afraid of. Everything he does just sounds weird to me. I
can't seem to grasp the aesthetic parameters that he's working in.

Christopher R. Weingarten: Well, I would say that there are three things to
consider w/r/t Kanye

1. Every album really does zig when the world zags. He really follows his own
muse and has changed the sound of rap music as a whole multiple times. Like
when autotune was getting unpopular as a crutch he decided to make it an
aesthetic choice, and now there are rappers whose whole career is singing
sad raps into autotune

2. Part of his role is as a curator. He's very deep into art and fashion and other
music besides rap and brings a lot of disparate elements into his stuff to create
entirely new aesthetics. Like he started a design company. Rap albums didn't
look like this

<https://consequenceofsound.files.wordpress.com/.../pusha...> until kanye
pushed minimalism with his art and design. The bands he samples, the
guests he has all paint a big picture. He was into EDM before it was cool. He
chooses to get Bon Iver on his record instead of, like, Maroon 5 because that
broken, not-as-good, indie rock voice is better for what he's going for.

and 3. His very very first album The College Dropout came in the middle of the
50 Cent era which was very macho and materialistic

and he rapped about guilt and insecurity and dropping out of college, which
completely changed what you could rap about on major label, radio-pushed rap
records. And so, as he's grown into different eras i.e., the I'M THE GREATEST

ARTIST stuff or the repentant "I'm sorry Taylor Swift, now that I have a daughter"
stuff or my mom is dead and my heart is broken. We've been able to follow him
as a human being not afraid to put that stuff out there

even when it makes him look cocky or egotistical or crazy the end

Me: Wow.

Christopher R. Weingarten: You came to the right guy. haha

Me: So he is for me what David Bowie was to my father. Something totally alien

everybody gets except me. But that helps to explain it. Thanks.

Like Reply 2 17 at 8:32am · Edited

So is Christopher reviewing the record in the next Rolling

Stone?

Like Reply 17 at 7:06am

I don't know, but I think he is their resident Kanye
expert.

Like Reply 1 17 at 7:07am

He wrote this 2 weeks ago.

<http://www.rollingstone.com/.../will-waves-be-kanye-wests...>



Will 'Waves' Be Kanye West's First
Disappointing Album?

ROLLINGSTONE.COM

Like Reply 1 17 at 7:08am

he might just suck you know...

Like Reply 1 16 at 8:45pm

I have yet to hear anything from Kanye I had the remotest interest
in listening to. And when I watched the SNL performance, I was utterly mystified.
To me it looked & sounded like an effort on community cable, albeit with a large
cast. Meanwhile he's apparently one of the most arrogant and rude
sonsobitches alive. I do not understand the appeal at all. I'm happy to stick with
's formulation: I have taste and he sucks.

Like Reply 1 17 at 1:15am

Mahler.

Like Reply 1 17 at 3:51am

You have to be broke and begging on Twitter to understand his work.

Like Reply 17 at 7:08am

<https://www.youtube.com/watch?v=SHSgB6QO1Yo>



We Have To Help Kanye

Kanye West is in debt and put out a brave
appeal for funds on Twitter. It's time for...

YOUTUBE.COM

Like Reply · Remove Preview 17 at 8:52pm

Figure 24. Social deixis and identity on Facebook.

reciprocal network (in the mediational means of Facebook), which includes many other writers, musicians, and academics. The original post exhibits an informed understanding of cultural identity processes, specifically in relation to the history of American popular music and its generational shifts, and enacts the author's struggle to maintain his position in that space, which has been a predominant identity-forming Subject for him but now seems to be shifting (reterritorializing) beyond formerly recognizable boundaries. The first sentence of the post provides a representation of intent in an explicit (spatiotemporally indicative and re-presentational) social and historical contextualization:

Every 20 years or so African Americans have to invent a new kind of music because the old music has been appropriated by white people.

This sets up a rhetorically deliberative *topos* (i.e., indicates a shared space of representation) the recognition of which will necessarily prompt a response (as the act of recognition itself), whether or not that response is acted upon in the form of a comment. (If the *topos*, the Subject, is not recognized, there is nothing to comment upon—and you are not a part of this 'collective effervescence'.) Such 'recognition' does not have to be affirmative, and can certainly be contested, but the author here assumes an agreeable 'universal audience' (defined by its capacity for recognition of the Subject and the *ethos* it represents).

Kanye West might be doing that right now, but I can't tell.

Here we have the expression of intent, or more specifically an implied question concerning the comprehension of intent (as the entelechy of the Subject, the reterritorializations of this shared space of representation, or more prosaically the recent changes in popular music exemplified by—indicated within this space of relations in the figure of—Kanye West). That question of comprehension derives from an inability to interpret indications of motive:

His music sounds weird to me, and I don't understand the aesthetic parameters.

The author, as Person, finds that he has no Agent capable of interpreting and therefore acting within or 'properly' reacting to recent reterritorializations, which throws his own identity in relation to this space of meaning into question:

Which I think means I'm officially old now.

Like all motivated communication, this is communication about communication (again, Bateson's 'metacommunication'). The author positions himself in relation to an ongoing 'collective effervescence' (relating to West's recent album release, claims to being millions of dollars in debt, and publically soliciting funding on Twitter) within a broader Subject (or nexus or field of potential Subjects) as a territory of meaning and identity (American popular music), using Facebook as a mediational means (and hence Agent) to indicate motive—both in terms of 'motives' as constitutive space of relations and 'motive' in terms of his own personal grappling with a relational problem of identity.

This is communication as interaction as gesture—the spatiotemporal dynamics of meaning-making in intra-action. The original post is deictically contextualized in relation to US cultural history, the history of American music, the current popular music landscape centered on Kanye West, and the author’s own relation to that territory of meaning. These predominant deictic gestures have a number of subtle expressive elements and aspects indicated by “appropriated by white people,” “might [...] but I can’t tell,” “sounds weird,” “don’t understand,” and “I think I’m officially old now.” The latter also evoke subtle imagistic elements in that they ‘paint a (relational) picture’ of the situation, in a manner similar to the ‘Portraits’ in the holiday cards and letters above.

In the comments prompted by the post, we find a variety of contributive and even a few competing deictic movements, particularly in the original author’s reported conversation with a professional music writer. We also find several other commenters (as Persons using Facebook as Agent) staking out territorial identity positions within or in relation to this Subject—often by employing negative epideictic gestures. The immediate responses, within the first 2 hours or so, are almost entirely expressive (negative, *ad hominem*) reactions. In these comments, which function in Burke’s terms as ‘identification by division’ or in Vitanza’s as ‘congregation by segregation’, Kanye West, often iconically and metonymically, explicitly re-presents (i.e., exemplifies) the shifting borders of this Subject as a representational space of identity:

He’s overrated because people love hubris.

He is exactly the right artist for the current generation. Belligerent, loud, ignorant to everything that isn’t about himself...

It’s called you have taste and Kanye sucks.

He's creating a new genre. It's called "Plop."

I do not understand the appeal at all. [...] I have taste and he sucks.

To this extent, the conversation is not really 'about' Kanye West as much as it is 'about' the territory of meaning he is serving here to re-present and the de- and re-territorializations of that dynamic space synecdochically constituted by and constitutive of those who enact it. This is evident in how the comments gradually become less expressive and more deictic, shifting from the motivated *expression* of intent (and, thus, affective relationality) to the intentional *representation* of broader space of relations (or 'context') itself, including a reported dialogue between the author of the original post and a professional music writer.

Each of these comments, like the post they respond to—and like all communication—is an act of self-enunciation. As previously noted, Rotman (2008, p. xxxi) argues that "every act of self-enunciation is medium specific," but we can better revise this to: every act of self-enunciation is *Subject*-specific. The 'medium' in Rotman's sense is, more precisely, the mediational means enacting a space of relations as mediational mean(ing), thus identity is defined by and in relation to Subject, even if performed, i.e. 'mediated', by Agent. Communication, as the action, interaction, and intra-action of Agents (whether a Person is involved as motivated actor or not), can only be understood in relation to the constitutive Subject (which is itself inevitably constituted in the mergence and emergence—deterritorialization, reterritorialization, territorialization—of previously instantiated territories of meaning as spaces of relations). Solely quantitative analyses, of Facebook 'data' for example, would have very little to say about this—would, at best, provide only a limited and reduced initial description of these processes based on, e.g., 'text-tokens'. The assertion that such data could be better classified,

clarified, and analyzed with the use and application of metadata is only as valid as the critical attention paid to the categories of metadata themselves, which can otherwise easily become ‘locating’ strictures (in Stone’s, 1995 sense of that term) that identify only by imposing constraints on the individual’s power of self-definition and autonomy (Richards & King, 2013). What is interesting here, in other words, is not so much the opinions or the invective (as ‘messages’), as the spaces of meaning which these signifiatory actions perform, which they both constitute and are constituted by—where those ‘messages’ come from, where they are going, and what they are doing or trying to do. A solely analytical focus on ‘the data’ does not provide access to ‘context’ by the enumeration of ‘text’ because each ‘point’ of that ‘data’ is a dynamic process, a multidimensional vector of meaning that can only be understood in relation to the territories of meaning it serves to enact. Each ‘text-token’, as a gesture of a motivated actor, is an indication-for as well as an indication-of that indicates the constitutive motives of the actor through the expression of identity in relation to the representation of a nexus of intent. In contrast, the categorizations of ‘metadata’, for example (which are analytical instantiations of Gadamer’s ‘prejudices’ or Burke’s ‘terministic screens’, etc.), are not straightforward interrogations representing the mapping of territories of meaning, they are locative impositions that are valid only in relation to the actions they indicate, and ‘useful’ only in relation to a particular ‘context’, articulated at a particular ‘level of abstraction’, for a particular purpose—and (with possible exception of autoethnography) the *researcher’s* CLP is never the *actor’s* CLP.

5.5 Territorial Pointings

With the exception of the epideictic speeches at the beginning of this chapter I have purposefully avoided (or at least minimized) explicitly political communication in the examples

provided. However, a vital part of the argument being articulated and supported is that all communication as interaction is political in the sense that communication necessarily enacts the expressive indication of spaces of representation and agency from which it emerges and emanates. For example, the Kanye West Facebook discussion, as mediational means, presents (and here re-presents) enactments of cultural, and thus political, identity. In this sense, the ad hominem expressions of negative epideictic are neither strange nor unexpected. As in the discussion of epideictic in Chapter 2, the dynamic constitution of identity is performed and maintained in the dialectical territorializations of combination and division—every ‘us’ doesn’t just *need* a ‘them’, it *creates* a ‘them’ by which the ‘us’ is defined in contrast (though that contrast need not necessarily be agonistic). In a historical moment when the availability of mediational means, particularly in the form of digitally networked technologies ensures an overwhelming complexity of imbricated spaces of identity, the need for an ‘authentic self’ justified by territories of meaning, and the social and psychological pressure to maintain such a coherent ‘self’, can lead to increasingly violent cultural politics in the struggles to define our shared spaces of representation.

I have very little interest as scholar, researcher, music lover, or subject of American popular culture in Kanye West, just as I have very little interest in the ritual performances enacted by holiday cards. However, I have a great interest in the cultural, and thus necessarily political, processes by which Kanye West is constituted and performs (presents, re-presents, and represents) ‘celebrity’ in the above example, and the cultural processes of identity performance and ‘network maintenance’ performed by holiday card rituals. I have a great interest in the dynamic imbrications of territories of (cultural) meaning by which these processes are thus valued and the values they perform. Digital media research that focuses on the mediational

means of these enactments (e.g., ‘toaster studies’) will not (and does not) get very far—and accomplishes even less when focused on the ‘data’ generated by such enactments. A focus on the ‘data’ of communication and interaction is but a very limited first step in coming to an understanding of the competing territories of meaning by, through, and in which inter- and intra-action is performed. The statistical manipulation of such data only—and can only—extrapolate upon the assumptions by which that ‘data’ was constituted—which is not to say that it is of no use but to say that it is of very limited use (because, again, that use, as purpose toward intent, is relative to a specific constitutive context and level of abstraction—typically that of the researcher or the funding agency).

This chapter has attempted to better illustrate and articulate a metatheoretical orientation by which the generation of data, the construction of information, and interpretation of those phenomena as—not only symbolic, but 4-dimensional signifiatory—*action* can be relationally articulated, understood, and put to use in the ongoing confluence to which those understandings contribute. Information (as ‘data plus meaning’) is *necessarily constructed* in relation to a particular context, at a particular level of abstraction, and for a particular purpose—as the indication-of a Subject. The constitution of information—the making meaningful of (already perceptually shaped) ‘data’—is thus a rhetorical act, as much as is any other act of communication. All this means is that we must pay careful attention to the constitutive processes with which and by which we invest information with validity. Any act of communication (interaction) is an intra-actional indication of the space of relations and territory of meaning by which ‘sender’, ‘message’, and ‘receiver’ are constituted as imbricated gestalt. It is for this reason that the ‘epideictic dimension’ is fundamental to human communication: the epideictic influences the confluence by presenting the space of representation by which ‘information’ is to

be valued, as well as how the ‘self’ doing that valuing is to be relationally defined and authorized (or not) with and against other such ‘selves’ and the worlds they share (in perception, reception, and interaction). The ‘epideictic dimension’ is the dimension of territorialization. Kenneth Burke called the active epideictic processes the ‘alignment of motives’, and such processes were illustrated in the examples of traditional epideictic oratory at the beginning of this chapter. The example of the holiday cards and letters shows how the epideictic dimension is operative in more mundane forms of ritualized interaction and how phatic acknowledgment serves as the functional aspect of the epideictic. The comparison of traditional holiday cards and letters with the more recent form of digitally produced photo cards showed that the form of mediational means employed for such ritualized action both shapes and is shaped by the broader media and cultural ecology, but the epideictic and phatic character of the ritual intra-action remains because it is the very purpose of such ritual interaction as well as the basic and necessary property of interaction generally.

The epideictic and phatic character of interaction is thus not limited to explicitly ritualized interaction. The explication of forms of ‘mediated gesture’ demonstrate that the epideictic and the phatic are fundamental to all interaction, whether face to face (indicated by, e.g., co-speech gesture) or in technologically mediated interaction. Gesture, as both phatic and epideictic, is what ‘hails’ the ‘receiver’ into being *as* ‘receiver’, whether in identification or in division (i.e., negative identification, negative epideictic)—and without that phatic and epideictic ‘hailing’ no interaction (as spacetime-making) can ‘take place’. The discussion of Dave Grohl’s video narrative of his email interaction with David Bowie demonstrates the challenges inherent in the interpretation of interaction (i.e., the recognition of the appropriate and relevant Subject), as well as the processes of ‘hailing’ and identification at the level of email (between Grohl and

Bowie), the level of reported narrative (by Grohl for Schmear), and the level of audience construction (by Grohl, Schmear, and the producers of the video).¹⁷⁷ The ‘network’ is not particularly important in this instance, and in any case is practically and effectively undeterminable. But this is also the case for the examples of mediated gesture on Twitter, the Facebook post and discussion, and the holiday cards. The ‘network’ indicated by the holiday cards as a mediational means, for example, also includes any cards that were not made available to me, those in the ‘network’ who received cards but didn’t send any, and others in this social network who, for whatever reason, did not participate in the ritual exchange this particular season. The space of relations as territory of meaning, however, is not determined, delimited, or even indicated by the ‘data’ of the network of interactants, however that might be defined. And the ‘text’ (as ‘data’) is only made meaningful (constituted as ‘information’) in relation to a Subject (a dynamic territory of meaning co-constituted by Persons and Agents), which is not determined by ‘senders’ and ‘receivers’ any more than it is by ‘messages’. ‘Senders’, ‘messages’, and ‘receivers’ are arbitrary ‘nodes’ enacted by a priori ‘links’, which are made meaningful (constituted as information) in the *imposition* of a Subject not the *revelation* of one. It is not the points and lines that are important but the spacetimes pointed to and for—the motives and intentions indicated.

In this sense, then, we return to the issue, processes, and ethics of agency. I have argued that communication is interaction, and that all action is intra-action, i.e., ‘intra-’ to a Subject as a space of relations and territory of meaning. Intra-action involves the indication of the relevant shared territory of meaning (and, hence, is phatic, epideictic, and rhetorical). Drawing from recent new materialist theories, I defined agency as the power to affect and be affected by the

¹⁷⁷ Implicit also, but obvious, is the further level of audience construction and interaction with the re-presentation of the video as an example in this dissertation.

world and others in it. It is in this sense that the non-human actor is understood to perform agency—to indicate the space of relations and the intentions of that dynamic territory, which are understood in terms of the entelechy of the assemblage. Agency is indicative. The intentional actor acts as Agent indicating and performing (enacting) the intentions-of its constitutive Subject. We are surrounded, inundated by such intentional actors, though their actions are not always easy to discern or scent or grasp. In the example above, the Facebook post is a mediational means for the author of the original post and the other (motivated) actors who comment upon it. However, Facebook, as an assemblage, functions as a mediational mean(ing)s, a space of relations, and a Subject, which mediates other Subjects, Persons, and Agents. But this mediation of mediation is not linear, not ‘nested’ in the sense McLuhan proffered—these spaces are imbricated, they are interpenetrating fields of agency and action, of motivation and intention. However, the larger space of Facebook itself does enact a variety of constraints, employing a number of Agents. One such agent is the algorithm that controls what each ‘user’ sees on Facebook: the algorithm that indicates the available spaces of relations (as potential intra-actions) acts within this space upon us as ‘users’, affects our territories of meaning within its own set of constraints, in action that is epideictic (indication-of) though not phatic (expression-for)—it is not Facebook or its algorithms that we acknowledge, but our relations among each other. Facebook as an assemblage is, thus, an intentional actor, manipulating and channeling motivations toward its own enelechial intentions: our intra-action is the primary intention of this assemblage (the more we interact on Facebook, and the more time we spend there, the more advertising dollars we generate for the company). This is the Subject function: where the Person is the process of enacting motivations (expressed) through intentions, and the Agent is the

process of indicating and enacting intentions, the Subject is the space of (representational) relations in which motivations and intentions are generated and codified.

There are, of course, motivated actors (persons as Persons) who act as parts and Agents of the Facebook assemblage (in some processes more than others, see e.g. Thielman, 2016). Like other ‘users’, these motivated actors bring their own externally socially generated identifying motivations to their functions as part of this Subject assemblage and will inevitably affect the larger processes in dynamic intra-relations. But, like most other political machinations (operations of power), these intra-actional processes are opaque to the rest of us as ‘users’ (or subjects). We cannot be privy to the competing sets of motivations that affect, for example, changes to the algorithm which determines what we see on our Facebook walls. But they are there, inevitable. The ethical implications of interaction (and intra-action), then, involve the relationships among Persons, Subjects, and Agents when people can function as Agents and intentional actors. It is fairly easy to understand intentions as goals, and we are generally culturally inclined (motivated) to delineate, set, and pursue goals at many different levels. We are far less inclined to interrogate our motivations, in the sense of motivation developed herein, i.e. not as simply ‘higher-order goals’. I ask my students why they are in my class. “To get the grade and the credit.” Why? “To graduate.” Why? (“Because my parents said...”) “To get a job.” Why? “To make money.” Why? ... That last question itself seems ridiculous to them, but also sometimes disturbing because the only answers they have—those who can articulate answers—are just more goals. It is difficult to talk about motivations apart from intentions, because motivations involve the values that we take for granted as “what exists and what doesn’t, what is good and what’s not, and what’s possible and what’s not” (Thereborn, 1980, p. 18). This has become even more complicated as our access to various sets of motivations (the Subjects that

comprise the Person) has expanded with the continuing development of and access to communications technologies and the ensuing ‘superdiversity’ and varieties of spacetimes of ‘collective effervescence’. But if we do not interrogate and address our motivations, if we do not identify and understand the Subjects to which we are subject, we abdicate our moral and ethical responsibilities (as both Persons and persons) to choose our own actions, becoming intentional Agents for purposes that may not benefit anyone or anything but assemblages we thereby serve.

6. CONCLUSION—UN-RESOLVED

I don't think that's [only] a 'modern' phenomenon that people tend to congregate with like-minded people. [...] What I would say about media today is that, maybe you're in a bubble. But, generally, little bits of other people's bubbles find their way into yours. And that's—as far as I'm concerned that's good. But you need a bubble-making machine. You need a machine that makes good bubbles, and is constantly putting them out there, and popping other people's shitty bubbles. So, while I would suggest that there is the sort of epistemic closure that you talk about, because of the volume of material being generated and the tenacity of the material being generated, there's a lot of cross-pollination. (Jon Stewart in conversation with David Axelrod at the Chicago University Institute of Politics, May 9, 2016; video available from Smith, 2016)

Following the Chomskyian current, the accent has been placed on *syntactic*, the *semantic* models and more recently attempts at theorising *enunciation* have surfaced. In our opinion, this trajectory will only attain its fullest scope when a veritable *pragmatic analysis* allowing the micropolitics of desire in the social field to be explored can be constituted. But that will only be possible to the extent that in the domain of linguistics and semiotics, structuralist prejudices [...] have been sufficiently cleared away. (Guattari, 2016, p. 9)

The linguistic and cultural turns of the later 20th century—importantly motivated by developments in semiotics and rhetorical theory—have been incredibly important for the development of a more sophisticated understanding of the human world. However, the obliteration of the foundations of 'objective truth' that those epistemological movements engendered has left us in a very strange place. Along with the abandonment of any claim to 'Truth', the interpretive disciplines, in general, seem to have abandoned any claim to relevance beyond their particular, clearly defined and enforced, disciplinary territorial boundaries. The descriptive social sciences, on the other hand, maintain (or assume) a claim to general relevance based on access to 'data' of 'actual' phenomena by generally ignoring the uncomfortable

epistemological and ontological questions concerning those data and the information generated from them, often in the guise of, e.g., ‘functionalism’ in service of immediate goals, thus ignoring underlying motivations. Both descriptive and interpretive research (across the Humanities and Social Sciences) seems to have generally (but not entirely) capitulated to little more than the prolongation of language games intent most directly on disciplinary reproduction rather than actual social relevance or broader implications (e.g., attention to *the* political rather than a narrow focus on its manifestations in specific politics of identity). The myopic involutions of protective insularity, propelled by an insistent fluttering attention to each next new thing gleaming within those respective spaces—despite consistent calls for interdisciplinarity, multidisciplinary, transdisciplinarity, and most recently ‘undisciplinarity’ (which have tended, each in their turn, to become ‘the next new thing’ and then promptly fade away)—have only exacerbated the rise to dominance of a vast, self-serving administrative *ethos* that undermines the very structural supports of academic research and scholarship. This is a particularly precarious situation in the study of communications media and technology because of 1) the critical importance of communications technology in the contemporary world—the vital place of mediational means in a world of ‘superdiversity’, and 2) the reliance of academic studies of technology on the corporations and other assemblages that create and control such technologies—and thus control the ‘users’ of these technologies. When those ‘users’ are researchers, the constraints on ontological and epistemological considerations, as well as motivations and intentions, become not just a matter of research ethics, but critical political considerations. But it doesn’t have to be this way.

One potential way out is to develop a broadly relational ontology such as the one developed herein. By developing a better understanding of the relations among both ‘individuals’

and the multiple territories of meaning they both constitute and are constituted by, we can also better understand the relation between the descriptive and the interpretive, which—in point of fact—*need each other*, cannot exist without one another: analysis *requires* synthesis; combination *necessitates* division. Accepting that ‘truth’ is relative to the functional and pragmatic conditions of its enactment is not an ‘abandonment’ of either truth or of broad relevance. It merely necessitates a better understanding of the generation of, continuous evolution of, and relations among our dynamic, truth-defining (e.g., information-constituting) territories of meaning—including that of such a relational ontology itself. The empirical must reacquaint itself with the rhetorical; the interpretive must accept and acknowledge its own ‘informational’ processes.¹⁷⁸ And both must come to a better understanding of that co-constitutive relation and be able to identify the underlying motivating forces if academic research is to have any value at all beyond myopic disciplinary reproduction reliant upon ‘external funding’. Frankly, it is difficult to argue against the insistent pressure to remove the economic burden of academia on the state when its primary intentions are generally represented by a diffuse clutter of self-referential relations, comprising intermittent back-patting and exchange of reputational capital or minute arguments relevant only to tiny territorial outcroppings often functioning only to keep those territories alive and intact above the flood.

¹⁷⁸ The recent movement toward ‘digital humanities’ would seem to tend in such a direction. However, in practice, it has generally comprised either 1) a surprisingly uncritical (often consumption-oriented) application of digital technologies to the ‘informationalization’ of traditional textual interpretive practices, thus, effectively abandoning the interpretive beyond the narrowly quantifiable (i.e., ‘digitizable’) pattern, or 2) a narrow focus on the ‘production’ of digital and/or ‘multimodal’ texts, often in a flustered and floundering attempt to maintain some form of disciplinary relevance in the face of the breakdown of the distinction between ‘orality’ and ‘literacy’ (literacy, in the form of ‘writing’, being the primary motive—and economic foundation—of the academic interpretive enterprise).

The metatheoretical orientation presented here does not solve these problems, but it might point a way. When any set of relations is understood as a space(time)—not in strictly metaphorical terms, but *actually* as a dynamic space of material relations in the broadest sense—the focus on ‘data points’ can be shifted to the territories of meaning that constitute those point(ing)s *as information*. From this perspective, ‘data’ and ‘information’ are of no use or consequence unless we can recognize, interpret, comprehend, evaluate, and articulate the processes by which that information is instilled with value and made meaningful (rather than simply taken for granted as ‘real’ thereby reifying the very ideological structures that need to be interrogated). From there, the ‘nodes’ and ‘links’ of the network become far less important than the liminal spacetimes in which different territories of meaning overlap, interact, and/or compete to define and mediate the structures of ‘information’ in particular contexts, at particular levels of abstraction (or interactional orders), and—most importantly—for particular purposes that effect particular sets of motivations inherent in those territories of meaning. The value of this account of interaction is that it is truly ‘scalable’. By taking ‘space(time)’ not as a facile metaphor but as the actual matrix of reality and interaction, we find that ‘every node is a network’ and every ‘point’ a multivalenced ‘pointing’, whether that ‘point’ is a ‘data point’, a word/symbol (or set of words/symbols), or some other form of ‘gesture’ broadly defined as indicative (inter- and intra-actional) movement.

In this dissertation I have relied on foundational accounts of communication and language in an attempt to make the ideas presented more accessible. I have assumed that members of my specific audience, as well as anyone who might read this voluntarily, would have some familiarity with at least one of the foundational sets of ideas being integrated, i.e., rhetoric, linguistics, semiotics, and basic information theory and cybernetics. I have integrated more

recent theoretical accounts of communication and interaction only when necessary to build the larger space of relations, and then only to the extent minimally necessary. The sections on affect theory and assemblage theory, for example, elide copious and evolving theoretical conversations in these multidisciplinary spaces of investigation. Going forward, the gesture theory of communication will need to be more intricately related to these and many other recent and contemporary conversations, including those of symbolic interactionism, actor-network theory, structuration theory, enactivism and action theory, and collective and artificial intelligence, as well as the relational psychology from which I have drawn.

The examples in Chapter 4, intended merely to illustrate the basic relations of the theoretical terminology developed to interactional phenomena, point towards a different, larger, solution space but do not take us very far. One way to more thoroughly explore the value of this metatheoretical orientation would be to identify a particular liminal space of territorial conflict and interrogate the movements and mediations of that conflict in terms not of the means but of the mean(ing)s in order to rearticulate the interactions and intra-actions of various assemblages at play across the modes of perception, reception, and interaction in hopes of identifying the enactive movements from motivation to intention in communication as interaction. Some spaces will be easier to account for in this way than others, a difficulty mediated by the researcher's relations to the spaces being articulated. The necessity of accounting for time in the gestural theory of communication further contributes to these challenges because methods that currently account for time do so only as far as time can be empirically quantified, which tends to reduce out the factor of time (as, e.g., history) rather than understand time as imbricating space—and vice versa. It is not enough to describe the bubbles in the solution—and even less to describe the shiny patterns of film on their surfaces. We need to know where they come from, how they form,

how they interact and change, and how they ultimately burst or dissolve. We already have a bubble-making machine—we *are* bubble-making machines. We need to know how they work so we can make better bubbles and know when to make new ones. This means conceptualizing the larger solution space of mediational mean(ing)s as nested and imbricated material ecologies.

Jon Stewart's use of the 'bubble' metaphor¹⁷⁹ is a nice and resonant twist, but for me Ursula LeGuin's amoebas remain a better image because it is of living and dynamic, dialogical, and intersubjective interaction, which (unlike 'bubbles'—or 'spheres' or 'networks', etc.) also serves to reiterate the permeability of 'inside' and 'outside'. Nothing is actually 'discrete'—the very act of observation demonstrates (but by no means encompasses) the impossibility. The setting of any boundary (like the definition of any 'object') is a rhetorical act bound to a particular scale of perception. The desire for a specific point of focus and description upon which to ground an interpretive pro(-)ject is a Baconian idol of tribe, cave, marketplace, and theater all wrapped up in one. For that very reason it is a desire that motivates and shapes much of our thinking. Thus, and even more importantly, it is also deeply bound to the ways most human language works and how we understand that working in terms of discrete 'signs' as 'units of information'. Gregory Bateson was among many (especially Vološinov and the later post-structuralists) to illuminate the illusion of the noun: things, ideas, objects, people etc. are dynamic processes. And yet nouns, things, and objects, as much as bodies and territories—whether material or 'immaterial'—are far easier to grasp than processes. The realization that objects (and everything else) are processes, in fact, exposes the fallacy of 'immateriality': bounding a dynamic process into the territory of a named idea doesn't uncover or reveal but *generates* the 'immaterial'.

¹⁷⁹ Stewart is referring to Eli Pariser's (2012) *The Filter Bubble*.

The relational ontology that motivates the foregoing gesture theory of communication reorients our attention from points to pointings, from bounded place to constitutive space, from ‘outcomes’ to confluences, and the co-constitutive relations among all of these. This may present a deceptively significant challenge because it upends, inverts, and explodes our most basic assumptions and starting points. It may be specific phenomena that catches our attention, but to investigate that one thing or ‘place’ *as a thing*—particularly when bound by stringent disciplinary assumptions and terminological strictures—is to kill and calcetize the very creature whose behavior we want to confront and understand. It is for this reason that I did not choose in this dissertation to examine a single, particular phenomenon or place as an extended illustration or demonstration of method. I could have, for example, simply minimally extended my earlier work on ‘mediated gesture’ on Twitter, but this would have drastically limited the project to a ‘Twitter study’ thereby reiterating exactly the kind of ‘toaster study’ I have sought to critique. Similarly, I could have extended the Dave Grohl video example or the Facebook discussion example to explore the generation and maintenance of ‘online communities’ or fandoms, but again, this would confine the larger project to the applicable narrow field of interest and drastically limit the reach and broader implications of the space I have sought to generate. More broadly, I could have extended the epideictic examples in Chapter 4 from Lincoln at Gettysburg and Truman and King and the Lincoln Memorial to their contemporary imbrications in the #BlackLivesMatter movement, related social and economic inequalities more broadly, and all of the various and imbricated racial, ethnic, cultural, and political segregations, tensions, incivilities, and violence of that space. But this would have too easily confined the project to a descriptive exercise in political rhetoric.

Instead, going forward, the gesture theory of communication calls attention to ways in which spaces of relations (as spaces of enacted meaning) are generated, evolve, and interact among themselves through those who enact them. This means that an emphasis on ‘data’ (in whatever form) is *at most* incomplete without attention to how those data are generated in modes of perception, reception, and interaction. This means, in turn, that the researcher herself and her methods can never be taken for granted. However, this also means that ‘objects’ of investigation and study can be approached from any level of abstraction, whether as 1) gestural enactments (as deictic and epideictic indications of relevance), which are necessarily enacted in 2) modes of perception, reception, and interaction, within 3) constitutive spaces of relations—usually, perhaps inevitably, several such spaces simultaneously. Point, line, and space are dynamically co-constitutive. Thus are ‘data’, method, researcher, and ‘context’ (including the ‘object of investigation’) dynamically co-constitutive. This realization does not necessarily require new methods, but it does insist upon careful attention to our methods, where they come from, what is motivating them, and how they are constraining us and what we can ‘see’.

CITED LITERATURE

- Abler, R. F. (1979). What makes cities important. *Bell Telephone Magazine* 49 (2), 10-15.
- Adams, J. Q. (1810). *Lectures on rhetoric and oratory, delivered to the classes of senior and junior sophisters in Harvard University*. Volume 1. Cambridge: Hilliard & Metcalf.
- Adams, P. C. (2009). *Geographies of media & communication: A critical introduction*. Malden, MA: Wiley-Blackwell.
- Adams, P. C. & Warf, B. (1997). Introduction: Cyberspace and geographical space. *Geographical Review*, 87 (2), 139-145.
- al Zidjaly, N. (2010). Intertextuality and constructing Islamic identities online. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 191-204). Hershey, PA & New York: Information Science Reference.
- Alexander, K. B. (2016). Introduction: "Hands up! Don't shoot!": Policing race in America. *Cultural Studies <--> Critical Methodologies*, 16 (3), 239-244.
- Allington, D., Brouilletter, S., & Golumbia, D. (2016). Neoliberal tools (and archives): A political history of digital humanities. *Los Angeles Review of Books*. May 1, 2016. Accessed May 6, 2015 from <https://lareviewofbooks.org/article/neoliberal-tools-archives-political-history-digital-humanities/>
- Allwood, J. (2002). Bodily communication dimensions of expression and content. In B. Granström, D. House, & I. Karlsson (Eds.), *Multimodality in language and speech systems* (pp. 7-26). Dordrecht: Springer Science+Business Media.
- Anderson, B. (2006). *Imagined Communities: Reflections on the Origin and Spread of Nationalism. Revised Edition*. New York: Verso.
- Anderson, J. F., Beard, F. K., & Walther, J. B. (2010). Turn-taking and the local management of conversation in a highly simultaneous computer-mediated communication system. *Language@Internet*, 7.
- Andreassen, C. S., Torsheim, T., & Pallesen, S. (2014). Predictors of use of social network sites at work – a specific type of cyberloafing. *Journal of Computer-Mediated Communication* 19(4), 906-921.
- Androutsopoulos, J. (2013a). Code-switching in computer-mediated communication. In S.C. Herring, S. Deiter, & T. Virtanen (Eds.), *Pragmatics of Computer-Mediated Communication* (pp. 667-694). Berlin: De Gruyter Mouton.
- Androutsopoulos, J. (2013b). Participatory culture and metalinguistic discourse: performing and negotiating German dialects on YouTube. In D. Tannen & A. M. Trester (Eds.),

- Discourse 2.0: Language & New Media* (pp. 47–71). Washington DC: Georgetown University Press.
- Androutsopoulos, J. (2012). “Greeklish”: Transliteration practice and discourse in the context of computer-mediated digraphia. In A. Jaffe, J. Androutsopoulos, & M. Sebba (Eds.), *Orthography as social action: scripts, spelling, identity, and power* (pp. 359-392). Munchen, Germany: Mouton de Gruyter.
- Androutsopoulos, J. (2011). From variation to heteroglossia in the study of computer-mediated discourse. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: language in the new media* (pp. 277-298). Oxford: Oxford University Press.
- Androutsopoulos, J. (2008). Potentials and limitations of discourse-centred online ethnography. *Language@Internet*, 5.
- Androutsopoulos, J., & Beißwenger, M. (2008). Introduction: data and methods in computer-mediated discourse analysis. *Language@Internet*, 5.
- Antheunis, M. L., Schouten, A. P., Valkenburg, P. M., & Peter, J. (2011). Interactive uncertainty reduction strategies and verbal affection in computer-mediated communication. *Communication Research*, 39(6), 757–780.
- Appadurai, A. (2016). *Banking on words: The failure of language in the age of derivative finance*. Chicago & London: University of Chicago Press.
- Applin, S. A., & Fischer, M. (2011). *A cultural perspective on mixed, dual & blended reality*. Paper presented at the International User Interface Workshop on Location Awareness for Mixed and Dual Reality, Palo Alto, CA.
- Arminen, I. (2005). Sequential order and sequence structure – the case of incommensurable studies on mobile phone calls. *Discourse Studies* 7(6), 649-662.
- Arminen, I., & Weilenmann, A. (2009). Mobile presence and intimacy—reshaping social actions in mobile contextual configuration. *Journal of Pragmatics* 41, 1905-1923.
- Arps, B. (2003). Letters on air in Banyuwangi (and beyond): Radio and phatic performance. *Indonesia and the Malay World* 31 (91), 301-316.
- Asen, R. (2009). Ideology, materiality, and counterpublicity: William E. Simon and the rise of a conservative counterintelligentsia. *Quarterly Journal of Speech* 95 (3), 263-288.
- Asteroff, J. F. (1987). Paralanguage in electronic mail: a case study. Teachers College Columbia University. Doctoral Dissertation.
- Atchison, J. (2012). The mystic chords of separation: Decorum and Jefferson Davis’s resignation from the Senate. *Southern Communication Journal* 77 (2), 111-127.

- Atkins, D., Uskul, A. K., & Cooper, N. R. (2016). Culture shapes empathic responses to physical and social pain. *Emotion*, online before print March 7, 2016. DOI: 10.1037/emo0000162
- Auer, P. & Schmidt, J. E. (eds). (2010). *Language & space: An international handbook of linguistic variation. Volume 1: Theories and methods*. Berlin & New York: Mouton de Gruyter.
- Auge, M. (1995). *Non-Places: Introduction to an Anthropology of Supermodernity*. London: Verso.
- Azuma, J., & Ebner, M. (2008) A stylistic analysis of graphic emoticons: can they be candidates for a universal visual language of the future? *Proceeding of World Conference on Educational Media, Hypermedia and Telecommunications* (pp. 972-977). Ed-Media.
- Azuma, J., & Maurer, H. (2007) From emoticon to universal symbolic signs: can written language survive in cyberspace? *Proceedings of the 3rd International Microlearning 2007 Conference*. Innsbruck: Innsbruck University Press. Retrieved from: http://www.microlearning.org/ml_files/azuma_maurer_pa_proceedings_2007_final.pdf
- Back, M., & Zepeda, M. (2013). Performing and positioning orthography in Peruvian CMC. *Journal of Computer-Mediated Communication*, 18(2), 119–135.
- Back, M. D., Schmukle, S. C., & Egloff, B. (2008). How extraverted is honey.bunny77@hotmail.de? Inferring personality from email addresses. *Journal in Personality Research*, 42(4), 1116-1122.
- Back, M. D., Stopfer, J. M., Vazire, S., Gaddis, S., Schmukle, S. C., Egloff, B., & Gosling, S.D. (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological Science*, 21(3), 372-374.
- Backhaus, G. (2009). Introduction I: The problematic of grounding the significance of symbolic landscapes. In G. Backhaus & J. Murangi (Eds.), *Symbolic landscapes*, pp. 3-31. Dordrecht: Springer Science+Business Media.
- Bakhaus, G. (1997). The phenomenology of telephone space. *Human Studies*, 20 (2), 203-220.
- Baker Jacobs, J., & Garcia, A. C. (2013). Repair in chat room interaction. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 565-587). Berlin & Boston: De Gruyter Mouton.
- Bakhtin, M. M. (1982). *The dialogic imagination: Four essays*. Austin: University of Texas Press.
- Bakken, F. (2005). SMS use among deaf teens and young adults in Norway. In Harper, R., Palen, L., & Taylor, A. (Eds.). *The inside text: social, cultural, and design perspectives on SMS* (pp. 161-174). Dordrecht: Springer.

- Bamman, D., Eisenstein, J., & Schnoebelen, T. (2014). Gender identity and lexical variation in social media. *Journal of Sociolinguistics*, 18(2), 135-160.
- Banks, S. P., Louie, E., & Einerson, M. (2000). Constructing personal identities in holiday letters. *Journal of Personal and Social Relationships*, 17 (3), 299-327.
- Bar-Hillel, Y. (1954). Indexical expressions. *Mind* 63 (3), 359-379.
- Barabási, A. L. (2002). *Linked: The new science of networks*. Cambridge, MA: Perseus Publishing.
- Barak, A., & Sadovsky, A. (2008). Internet use and personal empowerment of hearing-impaired adolescents. *Computers in Human Behavior*, 24, 1802-1815.
- Barazova, N. N., Taft, J. G., Choi, Y. H., & Cosely, D. (2014). Managing impressions and relationships on Facebook: self-presentational and relational concerns revealed through analysis of language style. *Journal of Language and Social Psychology*, 32(2), 121-141.
- Bargh, J. A., & Chartrand, T. L (1999). The unbearable automaticity of being. *American Psychologist*, 54, 462-479.
- Bargh, J. A., & McKenna, K. Y. A. (2004). The internet and social life. *Annual Review of Psychology*, 55, 573-590.
- Bargh, J. A., McKenna, K. Y. A., & Fitzsimons, G. (2002). Can you see the real me? Activation and expression of the “true self” on the internet. *Journal of Social Issues*, 58(1), 33-48.
- Barglow, R. (1994). *The crisis of self in the age of information: computers, dolphins and dreams*. London & New York: Routledge.
- Baron , N. S. (2010a). Are instant messages speech? In J. Huntsinger, L. Klastrup, & M. Allen (Eds.), *International handbook of internet research* (pp. 1-22). Dordrecht: Springer.
- Baron, N. S. (2010b). Discourse structures in instant messaging: the case of utterance breaks. *Language@Internet*, 7.
- Baron, N. S. (2005). Introduction. In R. Ling & P.E. Pederson (Eds.), *Mobile Communications: Renegotiation of the Social Sphere* (pp. 287-291). London: Springer.
- Baron, N. S. (2004). See you online: gender issues in college student use of instant messaging. *Journal of Language and Social Psychology*, 23(4), 397–423.
- Baron, N. S. (2003). Why email looks like speech: proofreading, pedagogy and public face. In J. Aitchison & D. M. Lewis (Eds.), *New media language* (pp. 85-94). London & New York: Routledge.
- Baron, N. S. (1984). Computer mediated communication as a force in language change. *Visible Language*, 18(2), 118–141.

- Baron, N. S., Squires, L., Tench, S., & Thompson, M. (2005). Tethered or mobile? Use of away messages in instant messaging by American college students. In R. Ling & P. E. Pederson (eds), *Mobile communications: Re-negotiation of the social sphere*, pp. 293-311. London: Springer-Verlag.
- Baron-Cohen, S. (1995). *Mindblindness: An Essay on Autism and Theory of Mind*. Cambridge: MIT Press.
- Bartle, R. A. (2003). *Designing virtual worlds*. Indianapolis: New Riders Publishing.
- Bartlett, F. C. (1932). *Remembering: A study in experimental and social psychology*. Cambridge: Cambridge University Press.
- Barton, D. (2010). Vernacular writing on the web. In D. Barton & U. Papen (Eds.), *The Anthropology of writing: understanding textually mediated worlds* (pp. 109-125). London & New York: Continuum.
- Barton, D., & Papen, U. (Eds.). (2010). *The Anthropology of writing: understanding textually mediated worlds*. London & New York: Continuum.
- Basso, K. H. (1989). The ethnography of writing. In R. Bauman & J. Sherzer (Eds.), *Explorations in the ethnography of speaking*, 2nd edition, pp. 425-432. Cambridge: Cambridge University Press.
- Bassolino, M., Serino, A., Ubaldi, A., & Lådavas, E. (2010). Everyday use of the computer mouse extends peripersonal space representation. *Neuropsychologia*, 48, 803-811.
- Bateson, G. (1988). *Mind and nature: A necessary unity*. New York: Ballantine Books.
- Bateson, G. (1972). *Steps to an ecology of mind*. New York: Ballantine Books.
- Bateson, N. (Director & Executive Producer). (2010). An ecology of mind. [motion picture]. USA: The Impact Media Group.
- Bauman, Z. (2000). *Liquid modernity*. Cambridge: Polity.
- Bay, J. & Rickert, T. (2010). Dwelling with new media. In C. E. Ball & J. Kalmbach (Eds.), *RAW (reading and writing) new media*, pp. 117-139. Cresskill, NJ: Hampton Press.
- Bay, J. & Rickert, T. (2008). New media and the fourfold. *JAC: Journal of Advanced Composition*, 28 (1/2), 207-244.
- Baym, N. K. (2011). *Personal connections in the digital age*. Malden, PA: Polity.
- Baym, N. K. (2000). *Tune in, log on: soaps, fandom, and online community*. Thousand Oaks: Sage.

- Baym, N. K., Zhang, Y. B., & Lin, M.-C. (2004). Social interactions across media: interpersonal communication on the internet, telephone and face-to-face. *New Media & Society*, 6(3), 299–318.
- Bays, H. (2010). Visual iconic patterns of instant messaging: steps towards understanding visual conversations. In J. Huntsinger, L. Klastrup, & M. Allen (Eds.), *International handbook of internet research* (pp. 41-64). Dordrecht: Springer.
- Bays, H. (1998). Framing and face in internet exchanges: a socio-cognitive approach. *Linguistik online*, 1(1).
- Bearne, E., & Kress, G. (2001). Editorial. *Reading, Literacy, & Language* 35 (3), 89-93.
- Bechar-Israeli, H. (1995). From <bonehead> to <cLoNehEAd>: nicknames, play, and identity on internet relay chat. *Journal of Computer-Mediated Communication*, 1(2).
- Beilman, V. A., Putney, L. G., & Strudler, N. (2003). Constructing community in a postsecondary virtual classroom. *Journal of Educational Computing Research*, 29 (1), 119-144.
- Beiswanger, M. (2013). Micro-linguistic structural features of computer-mediated communication. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 463-485). Berlin & Boston: De Gruyter Mouton.
- Beißwenger, M. (2008). Situated Chat Analysis as a Window to the User's Perspective: Aspects of Temporal and Sequential Organization. *Language@Internet*, 5.
- Bemong, N., Borghart, P., De Dobbeleer, M., Demoen, K., De Temmerman, K., & Keunen, B. (eds.). (2010). *Bakhtin's theory of the literary chronotope: Reflections, applications, perspectives*. Gent, Netherlands: Academia Press.
- Bennett, J. (2010). *Vibrant Matter: A Political Ecology of Things*. Durham: Duke University Press.
- Bennett, J. (2005). The agency of assemblages and the North American blackout. *Public Culture*, 17, 445-465.
- Bergen, B. K. (2004). The psychological reality of phonaesthemes. *Language*, 80 (2), 290-311.
- Bergs, A. (2006). Analyzing online communication from a social network point of view: questions, problems, perspectives. *Language@Internet*, 3.
- Bersen, N. O. (2002). Multimodality in language and speech systems – from theory to design support tool. In B. Granström, D. House, & I. Karlsson (Eds.), *Multimodality in language and speech systems* (pp. 93-148). Dordrecht: Springer Science+Business Media.
- Biesecker, B. A. & Lucaites, J. L. (2009). *Rhetoric, materiality & politics*. New York: Peter Lang.

- Black, E. (1970). The second persona. *Quarterly Journal of Speech* 56 (2), 109-119.
- Black, E. (1965). *Rhetorical criticism: A study in method*. NY: Macmillan Company.
- Blackman, B. I. (1990). A naturalistic study of computer-mediated communication: emergent communication patterns in on-line electronic messaging systems. Florida State University Department of Communication. Ph.D. Dissertation.
- Blagdon, J. (2013). How emojis conquered the world: The story of the smiley face from the man who invented it. The Verge. <http://www.theverge.com/2013/3/4/3966140/how-emoji-conquered-the-world>. Accessed 8 February 2015.
- Blake, G. (1999). E-mail with feeling. *Research Technology Management*, 42(6), 12-13.
- Blakely, B. J. (2011). iPods, Viagra, and the praiseworthy life: Epideictic rhetoric in technology and medical print advertising. *Journal of Popular Culture* 44 (4), 684-703.
- Blommaert, J. (2015). Chronotopes, scales, and complexity in the study of language in society. *Annual Review of Anthropology*, 44, 105-116.
- Blommaert, J. (2005). *Discourse: A Critical Introduction*. Cambridge: Cambridge University Press.
- Blommaert, J. & Backus, A. (2013). Superdiverse repertoires and the individual. In I. de Saint-Georges & J. -J. Weber, *Multilingualism and multimodality: Current challenges for educational studies*, pp. 11-32. Rotterdam: Sense Publishers.
- Blommaert, J. & Huang, A. (2009). Historical bodies and historical space. *Journal of Applied Linguistics*, 6 (3), 267-282.
- Blommaert, J. & Varis, P. (2011). Enough is enough: The heuristics of authenticity in superdiversity. *Tilburg Papers in Culture Studies*, No. 2. Tilburg: Tilburg University.
- Bloom, P., Peterson, M. A., Nadel, L., & Garrett, M. F. (eds.). (1999). *Language & space*. Cambridge, MA & London: MIT Press.
- Blyth, C. S. (2013). Pragmatics of Chat. In C. A. Chapelle, *The Encyclopedia of Applied Linguistics*. Oxford: Blackwell Publishing Ltd.
- Bodomo, A. D., & Lee, C. (2002). Changing forms of language and literacy: technobabble and mobile phone communication in Hong Kong. *Literacy & Numeracy Studies*, 12(1), 23-44.
- Bolander, B., & Locher, M. A. (2014). Doing sociolinguistic research on computer-mediated data: A review of four methodological issues. *Discourse, Context & Media*, 3, 14-26.
- Boneva, B. & Kraut, R. (2002). Email, gender, and personal relationships. In B. Wellman & C. Haythornewaite (Eds.), *The internet in everyday life* (pp 372-403). Oxford: Blackwell.

- Bónson, E., Escobar, T., & Ratkai, M. (2014). Testing the inter-relations of factors that may support continued use intention: The case of Facebook. *Social Science Information* 53(3), 293-310.
- Bontempi, B. & Frankland, P.W. (2009). Memory consolidation: Cerebral cortex. In L. R. Squire (Ed.), *Encyclopedia of neuroscience* (Vol. 5, pp. 733-749). Amsterdam: Elsevier.
- Bordelon, S. (2010). Composing women's civic identities during the progressive era: College commencement addresses as overlooked rhetorical sites. *College Composition & Communication* 61 (3), 510-533.
- Borrowman, S. & Kmetz, M. (2011). Divided we stand: Beyond Burkean identification. *Rhetoric Review* 30 (3), 275-292.
- Bostdorff, D.M. (2011). Epideictic rhetoric in the service of war: George W. Bush on Iraq and the 60th anniversary of the victory over Japan. *Communication Monographs* 78, 3, 296-323.
- Bostdorff, D. M. (2003). George W. Bush's post-September 11 rhetoric of covenant renewal: Upholding the faith of the greatest generation. *Quarterly Journal of Speech* 89 (4), 293-319.
- Bostdorff, D. M. & Ferris, S. H. (2014). John F. Kennedy at American University: The rhetoric of the possible, epideictic progression, and the commencement of peace. *Quarterly Journal of Speech* 100 (4), 407-441.
- Bourdieu, P. (1990). *The logic of practice*. Stanford: Stanford University Press.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- boyd, d. (2002). Faceted id/entity. Retrieved from:
www.danah.org/papers/Thesis.FacetedIdentity.pdf.
- boyd, d. m., & Ellison, N. B. (2007). Social network sites: definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230.
- boyd, d., Golder, S., & Lotan, G. (2010). Tweet tweet retweet: Conversational aspects of retweeting on Twitter. In *Proceedings of the Forty-third Hawai'i International Conference on System Sciences*. Los Alimos, CA: IEEE Press. Retrieved from:
<http://csdl.computer.org/dl/proceedings/hicss/2010/3869/00/03-06-04.pdf>
- Boyd, M. S. (2014). (New) participatory framework on YouTube? Commenter interaction in US political speeches *Journal of Pragmatics*, 72, 46-58.
- Breazeal, C. (2002). *Designing Sociable Robots*. Cambridge: MIT Press.
- Brevio, E., Ibarra, F. C., & Galimberti, C. (2010). An integrated approach to interactions in cyberspace: self-presentation in blogs. In R. Taiwo (Ed.), *The handbook of research on*

- Bruner, J. S. (1966). On cognitive growth II. In J. S. Bruner, R. R. Oliver, & P. Greenfield (eds.), *Studies in cognitive growth*, pp. 30-67. New York: Wiley.
- Bryant, E. M., Marmo, J., & Ramirez, A. Jr. (2013). A functional approach to social networking sites. In K. B. Wright, & Webb, L. M. (Eds.), *Computer-mediated communication in personal relationships* (pp. 3-20). New York: Peter Lang.
- Bucar, E. M. (2006). Speaking of motherhood: The epideictic rhetoric of John Paul II and Ayatollah Khomeini. *Journal of Christian Ethics* 26 (2), 93-123.
- Buchanan M. (2002). *Nexus: Small worlds and the groundbreaking science of networks*. New York & London: W.W. Norton & Company.
- Buchanan, R., Doordan, D. & Margolin, V. (2010). *The designed world: Images, objects, environments*. Oxford & New York: Berg.
- Bühler, K. (1934). *Sprachtheorie: die Darstellungsfunktion der Sprache*. Jena: Fischer.
- Burke, K. (2003). *On Human Nature: A Gathering While Everything Flows 1967 – 1984*. W. H. Rueckert & A. Bonadonna (Eds.). Berkeley: University of California Press.
- Burke, K. (1989a). *On Symbols and Society*. (J. R. Gusfield, Ed.). Chicago: University of Chicago Press.
- Burke, K. (1989b). The definition of man. In J. R. Gusfield (ed), *On symbols and society*, pp. 56-74. Chicago & London: University of Chicago Press.
- Burke, K. (1969a). *A grammar of motives*. Berkeley & Los Angeles: University of California Press.
- Burke, K. (1969b). *A rhetoric of motives*. Berkeley & Los Angeles: University of California Press.
- Burke, K. (1968). *Language as symbolic action: Essays on life, literature, & method*. Berkeley & Los Angeles: University of California Press.
- Burke, K. (1964). The rhetoric of Hitler's 'battle'. In K. Burke, S. E. Hyman (ed.), *Terms for Order*, pp. 95-119. Bloomington: Indiana University Press.
- Burgess, T. C. (1902). *Epideictic literature*. Chicago: University of Chicago Press.
- Burroughs, B. (2014). Facebook and FarmVille: A digital ritual analysis of social gaming. *Games & Culture* 9 (3), 151-166.
- Byron, K., & Baldrige, D. C. (2007). E-Mail recipients' impressions of senders' likability: the interactive effect of nonverbal cues and recipients' personality. *Journal of Business Communication*, 44(2), 137-160.

- Cacioppo, J. T., & Berntson, G. G. (Eds.) (2005). *Social Neuroscience: Key Readings*. New York: Psychology Press.
- Campbell, K. K., & Jamieson, K. H. (1990). *Deeds done in words: Presidential rhetoric and the genres of governance*. Chicago: University of Chicago Press.
- Carey, J. (2007). Time, space and the telegraph. In D. Crowley & P. Heyer (eds.), *Communication in history*, pp. 150-155). Boston: Allyn & Bacon.
- Carey, J. (1989). *Communication as Culture*. London: Unwin Hyman.
- Carey, J. (1980). Paralanguage in computer mediated communication. In N. K. Sondheimer (Ed.), *The 18th annual meeting of the association for computational linguistics and parasession on topics in interactive discourse: Proceedings of the conference* (pp. 67-69). Philadelphia: University of Pennsylvania.
- Carlson, L. & Van Der Zee, E. (eds.). (2005). *Functional features in language and space: Insights from perceptions, categorization, and development*. Oxford: Oxford University Press.
- Carr, C. T., Schrock, D. B., & Dauterman, P. (2012). Speech acts within Facebook status messages. *Journal of Language & Social Psychology*, 31(2), 176-196.
- Casasanto, D., & Boroditsky, L. (2008). Time in mind: Using space to think about time. *Cognition*, 106, 579-593.
- Casper, C. F. (2007). In praise of carbon, in praise of science: The epideictic rhetoric of the 1996 Nobel Lectures in Chemistry. *Journal of Business & Technical Communication* 21 (3), 303-323.
- Castells, M. (2010). *The Rise of the Network Society. The Information Age; Economy Society and Culture, Vol. 1*. Second Edition. Chichester: Blackwell-Wiley.
- Castells, M. (2005/1988). *The information age: economy, society, and culture. Volume 1: The rise of the network society*. 2nd edition. Malden, MA: Wiley-Blackwell.
- Cha, Y. -J. (2007). Identifying cross-cultural differences of emoticons in computer-mediated communication: A comparison of North American (U.S.) and South Korean emotional responses to emoticons. School of Informatics, Indiana University. (Masters Thesis)
- Chafe, W. (1998), Punctuation & the prosody of written language, *Written Communication* 5(4), 395-426.
- Chaka, C. (2010). From CMC technologies to social participation technologies. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 627-641). Hershey, PA & New York: Information Science Reference.

- Chandler, D. (2002). *Semiotics: The basics*. London & New York: Routledge.
- Chang, H. (2010). A New Perspective on Twitter Hashtag Use : Diffusion of Innovation Theory. Presented at *ASIST 2010*. Pittsburgh, PA. October 22-27.
- Charland, M. (1987). Constitutive rhetoric: The case of the *peuple Québécois*. *Quarterly Journal of Speech* 73 (2), 133-150.
- Chase, J. R. (1961). The classical conception of epideictic. *Quarterly Journal of Speech* 47 (3), 293-300.
- Cheepen, C. (1988). *The predictability of informal conversation*. London & New York: Pinter Publishers.
- Chen, G. M., & Abedin, Z. (2014). Exploring differences in how men and women respond to threats of positive face on social media. *Computers in Human Behavior* 38, 118-126.
- Chesebro, J.W. (1985). Computer-mediated interpersonal communication. In B.D. Ruben (ed.), *Information and behavior, volume 1* (pp. 202-224). New Brunswick & Oxford: Transaction Books.
- Chesebro, J. W. & Bonsall, D. G. (1989.) *Computer-mediated communication: human relationships in a computerized world*. Tuscaloosa & London: University of Alabama Press.
- Chiluwa, I. (2010). Discursive practice and the Nigerian identity in personal emails. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 112-129). Hershey, PA & New York: Information Science Reference.
- Cho, T. (2010). Linguistic features of electronic mail in the workplace: a comparison with memoranda. *Language@Internet*, 7.
- Choi, M., & Toma, C. L. (2014). Social sharing through interpersonal media: patterns and effects on emotional well-being. *Computers in Human Behavior* 36, 530-541.
- Christianson, S. (2012). *100 diagrams that changed the world: From the earliest cave paintings to the innovation of the iPod*. New York: Plume.
- Cingel, D. P., & Sundar, S. S. (2012). Texting, techspeak, and tweens: the relationship between text messaging and English grammar skills. *New Media & Society*, 14(8), 1304–1320.
- Clark, A. (2010). *Supersizing the Mind: Embodiment, Action and Cognitive Extension*. Oxford: Oxford University Press.
- Clark, A. (2000). *Mindware: An Introduction to the Philosophy of Cognitive Science*. Oxford: Oxford University Press.

- Clark, A. (1998a). *Being There: Putting Brain, Body and World Back Together Again*. Cambridge: MIT Press.
- Clark, A. (1998b). Where brain, body, and world collide. *Daedalus* 127 (2), 257-280.
- Clark, H. H. (2005). Coordinating with each other in a material world. *Discourse Studies* 7 (4), 507-525.
- Clarke, J. (2015). Stuart Hall and the theory and practice of articulation. *Discourse: Studies in the Cultural Politics of Education*, 36 (2), 275-286.
- Coe, R, Lingard, L., & Teslenko, T. (Eds.) (2002). *The rhetoric and ideology of genre: Strategies for stability and change*. Cresskill, NJ: Hampton Press.
- Cloud, D. L. (2004). The triumph of consolatory ritual over deliberation since 9/11. In G. A. Hauser & A. Grim, *Rhetorical democracy: Discursive practices of civic engagement. Selected papers from the 2002 conference of the Rhetorical Society of America*, pp. 74-80. Mahwah, NJ: Lawrence Erlbaum Associates.
- Clough, P. T. (Ed.) (2007). *The Affective Turn: Theorizing the Social*. Durham: Duke University Press.
- Cole, M. & Bruner, J. S. (1971). Cultural differences and inferences about psychological processes. *American Psychologist* 26, 867-876.
- Coleman, E. G. (2010). Ethnographic approaches to digital media. *Annual Review of Anthropology*, 39, 487-505.
- Condit, CM. (1985). The functions of epideictic: The Boston Massacre orations as exemplar. *Communication Quarterly* 33 (4), 284-299.
- Condon, S.L. & Čech C. (1996). Functional comparison of face-to-face and computer-mediated decision making interactions. In Herring, S.C. (ed.), *Computer-Mediated Communication: Linguistic, Social, and Cross-Cultural Perspectives* (pp. 65-80). Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Condon, S. L., & Čech, C. G. (2010). Discourse Management in Three Modalities. *Language@Internet*, 7.
- Coole, D. (2013). Agentic capacities and capacious historical materialism: Thinking with new materialisms in the political sciences. *Millennium*, 41 (3), 451-469.
- Coole, D. & Frost, S. (2010). *New materialisms: Ontology, agency, and politics*. Durham & London: Duke University Press.
- Cooren, F. (2010). *Action and agency in dialogue: passion, incarnation, and ventriloquism*. Amsterdam & Philadelphia: John Benjamins Publishing Company.

- Corbalis, M. C. (2013). Gestural theory of the origins of language. In C. Lefebvre, B. Comrie, & H. Cohen (Eds.), *New perspectives on the origins of language*, pp. 171-184. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Couldry, N., & McCarthy, A. (Eds.). (2004), *Mediaspace: Place, Scale and Culture in a Media Age*. London: Routledge.
- Coventry, K. R., Tenbrink, T., & Bateman, J. (eds.). (2009). *Spatial language and dialogue*. Oxford: Oxford University Press.
- Cover, R. (2012). Performing and undoing identity online: social networking, identity theories and the incompatibility of online profiles and friendship regimes. *Convergence*, 18(2), 177-193.
- Crang, M., & Thrift, N. (Eds.). (2000). *Thinking Space*. London: Routledge.
- Crawford, K. (2009) Following you: disciplines of listening in social media. *Continuum: Journal of Media & Cultural Studies*, 23(4), 525-535.
- Cresswell, T. (2004). *Place: A short introduction*. Malden, MA: Blackwell.
- Crystal, D. (2011). *Internet linguistics: A student guide*. London: Routledge.
- Crystal, D. (2009). *Texting: the G8 Db8*. Oxford: Oxford University Press.
- Crystal, D. (2001). *Language and the internet*. Cambridge: Cambridge University Press.
- Crystal, D. (1969). *Prosodic systems and intonation in English*. Cambridge: Cambridge University Press.
- Cudworth, E. & Hobden, S. (2013). Of parts and wholes: International relations beyond the human. *Millennium: Journal of International Studies*, 41 (3), 430-450.
- Culnan, M. J., & Markus, M. L. (1987). Information technologies. In F. M. Jablin, L. L. Putnam, & K. H. Roberts (Eds.), *Handbook of organizational communication: An interdisciplinary perspective* (pp. 420-443). Newbury Park, CA: Sage.
- Cunliffe, D., Morris, D., & Prys, C. (2013). Young bilinguals' language behaviour in social networking sites: the use of Welsh on Facebook. *Journal of Computer-Mediated Communication*, 18(3), 339-361.
- Cunningham, J. M. (2014). Features of digital African American language in a social network site. *Written Communication* 31 (4), 404-433.
- Cutrufello, G. (2015). The public address and the rhetoric of science: Henry Rowland, epideictic speech, and nineteenth-century American science. *Rhetoric Review* 34 (3), 275-291.
- D'Ausillo, A., Pulvermüller, F., Salmas, P., Bufalari, I., Begliomini, C., & Fadiga, L. (2009). The motor somatotopy of speech perception. *Current Biology* 19, 381-385.

- Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness, and structural determinants. *Management Science*, 32, 554-571.
- Daft, R. L., & Lengel, R. H. (1984). Information richness: a new approach to managerial behavior in organizations. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (pp. 191-233). Greenwich, CT: JAI Press.
- Dalton, W. (2014). Reflected spaces: "Heterotopia" and the creation of space in William Gibson's *Neuromancer*. *Iowa Journal of Cultural Studies* 15, 36-55.
- Danisch, R. (2008). Alain Locke on race and reciprocity: The necessity of epideictic rhetoric for cultural pluralism. *Howard Journal of Communications* 19 (4), 297-314.
- Danish, R. (2006) Power & the celebration of the self: Michel Foucault's epideictic rhetoric. *Southern Communication Journal* 71 (3), 291-307.
- Damasio, A. (2005). *Descartes' Error: Emotion, Reason, and the Human Brain*. New York: Penguin.
- Damasio, A. (2003). *Looking for Spinoza: Joy, Sorrow, and Feeling in the Brain*. Orlando: Harcourt.
- Damasio, A. (2000). *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. New York: Harcourt.
- Danet, B. (2013). Flaming and linguistic impoliteness on a listserv. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 639-664). Berlin & Boston: De Gruyter Mouton.
- Dai, X. (2009). Thematic and Situational Features of Chinese BBS Texts. *Language@Internet*, 6.
- Daiute, C. (1985). *Writing and Computers*. Reading, MA: Addison-Wesley Publishing Company.
- Danet, B. (2013). Flaming and linguistic impoliteness on a listserv. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 639-664). Berlin & Boston: De Gruyter Mouton.
- Danet, B. (2001). *Cyberpl@y: communicating online*. Oxford & New York: Berg.
- Danet, B. (1998). Text as mask: gender, play, and performance on the internet. In Jones, S. G. (Ed.). *Cybersociety 2.0: Revisiting computer-mediated communication and community* (pp. 129-158). Thousand Oaks: Sage Publications.
- Danet, B., & Herring, S. C. (Eds.) (2007). *The multilingual internet: Language, culture, and communication online*. Oxford: Oxford University Press.

- Danet, B., & Herring, S. C. (2003). Introduction: The multilingual internet. *Journal of Computer-Mediated Communication* 9(1). doi 10.1111/j.1083-6101.2003.tb00354.x
- Danet, B., Ruedenberg-Wright, L., & Rosenbaum-Tamari, Y. (1997). "Hmmm... where's that smoke coming from?" Writing, play and performance on internet relay chat. *Journal of Computer-Mediated Communication*, 2(4).
- Daniels, J. (2012). Race and racism in internet studies: A review and critique. *New Media & Society*, 15 (5), 695-719.
- Darics, E. (2013). Non-verbal signalling in digital discourse: The case of letter repetition. *Discourse, Context & Media*, 2(3), 141-148.
- Darics, E. (2010). Relational work in synchronous text-based CMC of virtual teams. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 830-851). Hershey, PA & New York: Information Science Reference.
- Das, A. (2010). Social interaction process of Bengalis on Orkut®. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 66-87). Hershey, PA & New York: Information Science Reference.
- Davies, J. (2007). Display, identity and the everyday: self-presentation through online image sharing. *Discourse*, 28(4), 549-564.
- Davis, J. L. (2014). Triangulating the self: Identity processes in a connected era. *Symbolic Interaction* 37 (4), 500-523.
- Davis, J. (2010). Architecture of the personal interactive homepage: constructing the self through MySpace. *New Media & Society*, 12(7), 1103-1119.
- Davis, B. H., & Brewer, J. (1997). *Electronic discourse: linguistic individuals in virtual space*. Albany: State University of New York Press.
- Davis, J. L., & Jurgenson, N. (2014). Context collapse: theorizing context collusions and collisions. *Information, Communication & Society*. doi 10.1080/1369118X.2014.888458
- de Certeau, M. (2007). Walking in the city. In M. Lock & J. Farquhar, *Beyond the Body Proper: Reading the Anthropology of Material Life*, pp. 249-259. Durham & London: Duke University Press.
- De Gournay, C. (2002). Pretense of intimacy in France. In J. E. Katz & M. A. Aakhus (Eds.), *Perpetual contact: mobile communication, private talk, and public performance* (pp. 193-205). Cambridge: Cambridge University Press.

- de Oliveira, S. M. (2013). Address in computer-mediated communication. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 291-313). Berlin & Boston: De Gruyter Mouton.
- de Souza e Silva, A. (2004). Mobile networks and public spaces: bringing multiuser environments into the physical space. *Convergence* 10, 15-25.
- Deacon, A. & WynSculley, C. (2007). Learning from the rhetoric of academics using educational technology. *International Journal of Education and Development Using Information and Communication Technology* 3 (4), 153-167.
- DeLanda, M. (2011). *Philosophy and simulation: The emergence of synthetic reason*. London & New York: Continuum.
- DeLanda, M. (2006). *A new philosophy of society*. London & New York: Continuum.
- DeLanda, M. (1997). *A thousand years of nonlinear history*. New York: Zone Books.
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: capitalism and schizophrenia*. B. Massumi (Ed.). Minneapolis & London: University of Minnesota Press.
- Deleuze, G. & Guattari, F. (1983). *Anti-Oedipus: Capitalism and schizophrenia*. Minneapolis: University of Minnesota Press.
- Depperman, A. (2013). Multimodal interaction from a conversation analytic perspective. *Journal of Pragmatics* 46, 1-7.
- Derks, D. (2007). Exploring the missing wink: Emoticons in cyberspace. Heerlen: Open Universiteit Nederland, Academischproefschrift [dissertation]. Retrieved from: www.ou.nl/Docs/Onderzoek/Definitieve%20versie%20Exploring%20the%20Missing%20Wink.pdf
- Derks, D., Bos, A. E. R., & von Grumbkow, J. (2008a). Emoticons and Online Message Interpretation. *Social Science Computer Review*, 26(3), 379-388.
- Derks, D., Bos, A. E. R., & von Grumbkow, J. (2008b). Emoticons in computer-mediated communication: social motives and social context. *Cyberpsychology & Behavior*, 11(1), 99-101.
- Derks, D., Bos, A. E. R., & von Grumbkow, J. (2007). Emoticons and social interaction on the Internet: the importance of social context. *Computers in Human Behavior*, 23(1), 842-849.
- Derks, D., Fischer, A. H., & Bos, A. E. R. (2008). The role of emotion in computer-mediated communication: A review. *Computers in Human Behavior*, 24(3), 766-785.
- Devlin, J. T., & Aydelott, J. (2009). Speech perception: motoric contributions versus the motor theory. *Current Biology*, 19, R198-R199.

- Deumert, A. (2014a). *Sociolinguistics and mobile communication*. Edinburgh: Edinburgh University Press.
- Deumert, A. (2014b). The performance of a ludic self on social network(ing) sites. In P. Seargeant & C. Tagg (Eds.), *The language of social media: Identity and community on the internet*, pp. 23-45. Basingstoke: Palgrave Macmillan.
- Deumert, A., & Masinyana, S. O. (2008). Mobile language choices – the use of English and isiXhosa in text messages (SMS). Evidence from a bilingual South African sample. *English World-Wide*, 29 (2), 117-147.
- Dewey, J. (1948). The reflex arc concept in psychology. In W. Dennis (Ed.), *Readings in the history of psychology*, pp. 355-365. New York: Appleton-Century-Crofts, Inc.
- Di Leonardo, M. (1987). The female world of cards and holidays: Women, families, and the work of kinship. *Signs: Journal of Women in Culture and Society*, 12 (3), 440-453.
- Diago Marco, M. (2002). La máscara en el chat. Nick y avatar en el mundo virtual. *Revista de antropología experimental*, 2.
- DiDomenico, S. M., & Boase, J. (2013). Bringing mobiles into the conversation: applying a conversation analytic approach to the study of mobiles in co-present interaction. In D. Tannen & A. M. Trester (Eds.), *Discourse 2.0: language and new media* (pp. 119-132). Washington DC: Georgetown University Press.
- Dimmick, J., Kline, S., & Stafford, L. (2000). The gratification niches of personal e-mail and the telephone: competition, displacement, and complementarity. *Communication Research*, 27(2), 227-248.
- Dinsmore, J. (1991). *Partitioned representations: A study in mental representation, language understanding and linguistic structure*. Dordrecht: Springer Science+Business Media.
- Doel, M. A. (2000). Un-glunking geography: Spatial science after Dr Suess and Gilles Deleuze. In M. Crang & N. Thrift (eds.), *Thinking space*, pp. 117-135. London & New York: Routledge.
- Dodge, M. & Kitchen, R. (2005). Code and the transduction of space. *Annals of the American Association of Geographers*, 92 (1), 162-180.
- Dodge, M. & Kitchen, R. (2001). *Mapping cyberspace*. London & New York: Routledge.
- Dolev-Cohen, M., & Barak, A. (2013). Adolescents' use of IM as a means of emotional relief. *Computers in Human Behavior*, 29(1), 58-63.
- Domahidi, E., Festl, R., & Quandt, T. (2014). To dwell among gamers: Investigating the relationship between social online game use and gaming-related friendships. *Computers in Human Behavior*, 35, 107-115.

- Döring, N., & Pöschl, S. (2009). Nonverbal cues in mobile phone text messages: the effects of chronemics and proxemics. In R. Ling & S. W. Campbell (Eds.), *The reconstruction of space and time: mobile communication practices* (pp. 109-135). New Brunswick & London: Transaction Publishers.
- Douglas, K. M., & McGarty, C. (2001). Identifiability and self-presentation: computer-mediated interaction and intergroup interaction. *British Journal of Social Psychology*, 40(3), 399-416.
- Douglass, F. (1979). *The Frederick Douglass papers: Series one: Speeches, debates, and interviews*. Vol. 1. J. Blassingame (ed.). New Have: Yale University Press.
- Dresner, E., & Herring, S. C. (2010). Functions of the nonverbal in CMC: emoticons and illocutionary force. *Communication Theory*, 20(3), 249–268.
- du Gay, P., Hall, S., Janes, L., Mackay, H., & Negus, K. (1997). *Doing cultural studies: The story of the Sony Walkman*. London: Sage Publications.
- Dubreuil, L. (2015). *The intellectual space: Thinking beyond cognition*. Minneapolis & London: University of Minneapolis Press.
- Duchan, J. F., Bruder, G. A., & Hewitt, L. E. (1995). *Deixis in narrative*. New York & London: Routledge.
- Duncan, J. S., & Duncan, N. G. (2004). *Landscapes of privilege: The politics of the aesthetic in the American suburb*. London: Routledge.
- Duranti, A. & Goodwin, C. (eds.). (1992). *Rethinking context: Language as an interactive phenomenon*. Cambridge: Cambridge University Press.
- Durkheim, E. (1995 [1912]). *The elementary forms of religious life*. K. E. Fields (Trans.). New York: Free Press.
- Dürscheid, C., & Frehner, C. (2013). Email communication. In S.C. Herring, D. Stein, & T. Virtanen (eds), *Pragmatics of computer-mediated communication*, pp. 35-54. Berlin & Boston: Walter de Gruyter.
- Duthler, K. W. (2006). The politeness of requests made via email and voicemail: Support for the hyperpersonal model. *Journal of Computer-Mediated Communication* 11(2), 500-521.
- Eagleton, T. (1991). *Ideology: An introduction*. London & New York: Verso.
- El Ouiridi, M., El Ouiridi, A., Segers, J., & Henderickx, E. (2014). Social media conceptualization and taxonomy: A Lasswellian framework. *Journal of Creative Communications*, 9(2), 107-126.
- Eco, U. (1976). *A theory of semiotics*. Bloomington & London: Indiana University Press.

- Edelman, G. & Tononi, G. (1999). *The universe of consciousness: How matter becomes imagination*. New Haven: Yale University Press.
- Edwards, J. C. W. (2008). Are our spaces made of words? *Journal of Consciousness Studies* 15 (1), 63-83.
- Ekman, P., & Friesen, W. V. (1978). *Facial Action Coding System: A Technique for the Measurement of Facial Movement*. Palo Alto, CA: Consulting Psychologists Press.
- Ekman, P., & Friesen, W. V. (1976). *Pictures of Facial Affect*. Palo Alto, CA: Consulting Psychologists Press.
- Elleström, L. (2010a). Introduction. In L. Elleström (ed.), *Media borders, multimodality and intermediality* (pp. 11-48). New York: Palgrave Macmillan.
- Elleström, L. (2010b). The modalities of media: A model for understanding intermedial relations. In L. Elleström (ed.), *Media borders, multimodality and intermediality* (pp. 11-48). New York: Palgrave Macmillan.
- Ellison, N., Heino, R., & Gibbs, J. (2006). Managing impressions online: self-presentation processes in the online dating environment. *Journal of Computer Mediated Communication*, 11(2).
- Elspaß, S. (2002). Alter Wein und neue Schläuche? Briefe der Wende zum 20. Jahrhundert und Texte der neuen Medien – ein Vergleich. In U. Schmitz & E. El Wys (Eds.), *Briefkultur im 20. Jahrhundert*. Osnabrücker Beiträge zur Sprachtheorie 64, 7-31. Duisberg: Gilles & Franke.
- Elwell, J. S. (2014). The transmediated self: life between the digital and the analogue. *Convergence*, 20(2), 233-249.
- Emler-Dewitt, P. (1994). Bards of the internet. *Time* 144(1), 166.
- Englebretson, R. (2007). *Stancetaking in discourse: Subjectivity, evaluation, interaction*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Engler, R. (Ed.) (1974). *Ferdinand de Saussure, course de linguistique générale. Édition critique*. Weisbaden: Otto Harrassowitz.
- Engels, J. (2009). Uncivil speech: Invective and the rhetorics of democracy in the early republic. *Quarterly Journal of Speech* 95 (3), 311-334.
- Epley, N. & Kruger, J. (2005). When what you type isn't what they read: the perseverance of stereotypes and expectancies over e-mail. *Journal of Experimental Social Psychology*, 41(4), 414-422.

- Evans-Pritchard, E. E. (2007). Time and space. In M. Lock & J. Farquhar (eds.), *Beyond the body proper: Reading the anthropology of material life*, pp. 193-201. Durham & London: Duke University Press.
- Fägersten, K. B., Holmsten, E., & Cunningham, U. (2010). Multimodal communication and meta-modal discourse. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 144-163). Hershey, PA & New York: Information Science Reference.
- Fan, R., Zhao, J., Chen, Y., & Xu, K. (2013). Anger is more influential than joy: sentiment correlation in Weibo. *Physics and Society*. Retrieved from <http://arxiv.org/abs/1309.2402>
- Farman, J. (2012). *Mobile Interface Theory: Embodied Space and Locative Media*. London: Routledge.
- Farnell, B. (1995). Where mind is a verb: Spatial orientation and deixis in Plains Indian sign talk and Assinibooine (Nakota) culture. In B. Farnell (ed.), *Human action signs in cultural context: The visible and the invisible in movement and dance* pp. 82-111. Metuchen, NJ & London: The Scarecrow Press.
- Farquhar, L. (2013). Performing and interpreting identity through Facebook imagery. *Convergence*, 19(4), 446-471.
- Fauconnier, G. (1994). *Mental spaces: Aspects of meaning construction in natural language*. Cambridge: Cambridge University Press.
- Featherstone, M., & Burrows, R. (1995). *Cyberspace, cyberbodies, cyberpunk: cultures of technological embodiment*. Thousand Oaks & London: Sage Publications.
- Feinberg, R. (2014). Multiple models of space and movement on Taumako, a Polynesian island in the southeastern Solomons. *Ethos* 42 (3), 302-331.
- Ferrara, K., Brunner, H., & Whittemore, G. (1991). Interactive written discourse as an emergent register. *Written Communication*, 8(1), 8-34.
- Fernback, J. (2007). Beyond the diluted community concept: a symbolic interactionist perspective on online social relations. *New Media & Society*, 9(1), 49-69.
- Fernback, J. (1997). The individual within the collective: virtual ideology and the realization of collective principles. In S. G. Jones (Ed.), *Virtual culture: identity & communication in cybersociety* (pp. 36-54). London: Sage.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston: Row, Peterson.
- Fetzer, A. & Fischer, K. (eds.). (2007). *Lexical markers of common grounds*. Oxford: Elsevier.
- Fetzer, A. & Oishi, E. (eds.). (2011). *Context and contexts: Parts meet whole?* Amsterdam & Philadelphia: John Benjamins Publishing Company.

- Fillmore, C. J. (1997). *Lectures on deixis*. Stanford, CA: CSLI Publications.
- Finholt, T., & Sproull, L. S. (1990). Electronic groups at work. *Organization Science*, 1(1), 41–64.
- Fisher, W.R. (1973). Reaffirmation and subversion of the American dream. *Quarterly Journal of Speech* 59 (2), p. 160-167.
- Flanagin, A. J., & Metzger, M. J. (2001). Internet use in the contemporary media environment. *Human Communication Research*, 27(1), 153-181.
- Floridi, L. (2011). *The philosophy of information*. Oxford: Oxford University Press.
- Florini, S. (2014). Tweets, tweeps, and signifyin': Communication and cultural performance on "Black Twitter". *Television & New Media* 15 (3), 223-237.
- Foley, M. (2015). Time for epideictic. *Quarterly Journal of Speech* 101 (1), 209-212.
- Fornaciari, F. (2013). The language of technoself: storytelling, symbolic interactionism, and online identity. In R. Luppici (Ed.), *Handbook of research on technoself: Identity in a technological society* (pp. 64-83). Hershey, PA: Information Science Reference.
- Fortunati, L. (2005). Mobile telephone and the presentation of self. In R. Ling & P. E. Pederson (Eds.), *Mobile communication: the re-renegotiation of the social sphere* (pp. 203-218). London: Springer-Verlag.
- Foster, H. (Ed.) (1988). *Vision and visibility*. Seattle: Bay Press.
- Foucault, M. (1998). Different spaces. In F. D. Faubion (ed.), *Aesthetics, method, and epistemology. Essential works of Foucault, volume 2, 1954-1984*, pp. 175-185. New York: New Press
- Foulger, D. A. (1990). Medium as process: the structure, use, and practice of conferencing on IBM's IBMPC computer conferencing facility. An overview. Available at <http://www.foulger.info/davis/papers/dissummary.htm>. Accessed 30 December 2014.
- Fouser, R. J., Inoue, N., & Lee, C. (2000). The pragmatics of orality in English, Japanese, and Korean computer-mediated communication. In L. Pemberton & S. Shurville (Eds.), *Words on the web: computer-mediated communication* (pp. 52-62). Bristol, UK & Portland, OR: Intellect.
- Fowler, C. A., & Hodges, B. (in press). Finding common ground: Alternatives to code models for language use. *New Ideas in Psychology*.
- Fox, A. B., Bukatko, D., Hallahan, M., & Crawford, M. (2007). The medium makes a difference: gender similarities and differences in instant messaging. *Journal of Language and Social Psychology*, 26(4), 389–397.

- Fox, J., Osborn, J. L., & Warber, K. M. (2014). Relational dialectics and social networking sites: the role of Facebook in romantic relationship escalation, maintenance, conflict, and dissolution. *Computers in Human Behavior*, 35, 527-534.
- Franks, B. (2011). *Culture and cognition: Evolutionary perspectives*. London: Palgrave Macmillan.
- Freadman, A. (2002). Uptake. In R. Coe, L. Lingard, & T. Teslenko, *The rhetoric and ideology of genre: Strategies for stability and change*, pp. 39-53. Cresskill, NJ: Hampton Press.
- Fujimoto, K. (2005). The third-stage paradigm: territory machines from the girls' pager revolution to mobile aesthetics. In M. Ito, D. Okabe, & M. Matsuda (Eds.), *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life*. Cambridge: MIT Press.
- Fulk, J., & Van Tassel, J. (1985). Nonverbal communication in electronic messages. Paper presented at the International Communication Association, Honolulu, Hawaii, May 1985.
- Fuller, B.F. with Agel, J., & Fiore, J. (1970). *I seem to be a verb*. New York: Bantam Books.
- Fullwood, C., & Martino, O. I. (2007). Emoticons and impression formation. *Applied Semiotics*, 19, 4-14.
- Fullwood, C., Morris, N., & Evans, L. (2010). Linguistic androgyny on MySpace. *Journal of Language and Social Psychology*, 30(1), 114-124.
- Fullwood, C., Orchard, L. J., & Floyd, S. A. (2013). Emoticon convergence in Internet chat rooms. *Social Semiotics*, 23(5), 648-662.
- Gadamer, H. -G. (1985). *Truth and method*. New York: Crossroad Publishing Company.
- (1985)Galegher, J., Sproull, L., & Kiesler, S. (1998) Legitimacy, authority, and community in electronic support groups. *Written Communications*, 15(4), 493-530.
- Gallese, V. (2001). The "shared manifold" hypothesis: from mirror neurons to empathy. *Journal of Consciousness Studies*, 8, 33-50.
- Gallese, V., Keysers, C., & Rizzolatti, G. (2004). A unifying view of the basis of social cognition. *Trends in Cognitive Science*, 8, 396-403.
- García-Gómez, A. (2013). Technoself-presentation on social networks: a gender-based approach. In R. Luppici (Ed.), *Handbook of the technoself: identity in technological society* (pp. 382-398). Hershey, PA: Information Science Reference.
- Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice-Hall.
- Garrison, A., Remley, D., Thomas, P., & Wierszewski, E. (2011). Conventional Faces: Emoticons in Instant Messaging Discourse. *Computers and Composition*, 28(2), 112-125.

- Gattis, M. (ed.). (2001). *Spatial schemas in abstract thought*. Cambridge: MIT Press.
- Gavins, J. (2007). *Text world theory: An introduction*. Edinburgh: Edinburgh University Press.
- Geisler, C. (2011). IText Revisited: The Continuing Interaction of Information Technology and Text. *Journal of Business and Technical Communication*, 25(3), 251–255.
- Geisler, C. (2004). Introduction to the Special Issue: The IText Revolution. *Journal of Business and Technical Communication*, 18(3), 267–269.
- Geisler, C., Bazerman, C., Doheny-Farina, S., Gurak, L., Haas, C., Johnson-Eilola, J., ... Yates, J. (2001). IText: future directions for research on the relationship between information technology and writing. *Journal of Business and Technical Communication*, 15(3), 269–308.
- Georgakopoulou, A. (2011b). Computer mediated communication. In J.-O. Ostman & J. Verschueren (Eds.), *Pragmatics in practice* (pp. 93–110). Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Georgakopoulou, A. (2006). Postscript: Computer-mediated communication in sociolinguistics. *Journal of Sociolinguistics*, 10(4), 548–557.
- Georgakopoulou, A. (1997). Self-presentation and interactional alliances in e-mail discourse: the style- and code-switches of Greek messages. *International Journal of Applied Linguistics*, 7(2), 141–164.
- Georgalou, M. (2010). ‘Pathfinding’ discourses of self in social network sites. In R. Taiwo (Ed.), *Handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 39–65). Hershey, PA: IGI Global.
- Gergen, K. J. (2015). From mirroring to world-making: Research as future forming. *Journal for the Theory of Social Behaviour*, 45 (3), 287–310.
- Gergen, K. J. (2009). *Relational being: Beyond self and community*. Oxford: Oxford University Press.
- Gergen, K. J. (2002). The challenge of absent presence. In J. E. Katz & M. A. Arkhus (Eds.), *Perpetual contact: mobile communication, private talk, and public performance* (pp. 227–241). Cambridge: Cambridge University Press.
- Gibbs, M. R., Howard, S., Vetere, F., & Bunyan, M. (2005). “SynchroMate”: A phatic technology for mediating intimacy. *Proceedings of the 2005 conference on designing for user eXperience*. Article 37. New York: American Institute of Graphic Arts.
- Gibson, J. J. (1986). *The ecological approach to visual perception*. New York: Psychology Press.
- Gibson, J. J. (1966). *The senses considered as perceptual systems*. Boston: Houghton Mifflin.

- Giddens, A. (1990). *The Consequences of Modernity*. Cambridge: Polity.
- Gill, M. (2013). Authentication and Nigerian letters. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 411-436). Berlin & Boston: De Gruyter Mouton.
- Gill, A. J., Oberlander, A. J., & Austin, E. (2006). Rating e-mail personality at zero acquaintance. *Personality and Individual Differences*, 40(3), 497-507.
- Glover, K. D. (2000). Proximal and distal deixis in negotiation talk. *Journal of Pragmatics* 32, 915-926.
- Goddard, A. (2004). "The way to write a phone call": multimodality in novices' use and perceptions of interactive written discourse (IWD). In P. LeVine & R. Scollon (Eds.), *Discourse and Technology: Multimodal Discourse Analysis* (pp. 34-46). Washington DC: Georgetown University Press.
- Goffman, E. (1974). *Frame analysis*. New York: Harper & Row.
- Goffman, E. (1959). *The Presentation of Self in Everyday Life*. New York: Anchor Books.
- Goldbarg, R. N. (2009). Spanish-English Codeswitching in Email Communication. *Language@Internet*, 6.
- Goldin-Meadow, S. (2003). *Hearing Gesture*. Cambridge, MA: Belknap Press.
- Goldberg, L. (2014). 10 emoji meanings that might surprise you. Mashable.com. <http://mashable.com/2014/08/15/surprising-emoji-meanings/>. Accessed 8 February 2015.
- Gonzales, A. L. (2014). Text-based communication influences self-esteem more than face-to-face or cellphone communication. *Computers in Human Behavior* 39, 197-203.
- González, A. & Heuman, A. N. (2003). The Latin Grammys and the ALMAs: Award programs, cultural epideictic, and intercultural pedagogy. *Journal of Latinos & Education* 2 (1), 47-57.
- Goody, W. (1988). *Time & the Nervous System*. New York: Praeger.
- Goodwin, C. (2007). Participation, stance and affect in the organization of activities. *Discourse & Society* 18(1), 53-73.
- Goodwin, C. (2000). Action and embodiment within situated human interaction. *Journal of Pragmatics* 32(10), 1489-1522.
- Goutsos, D. (2005). The interaction of generic structure and interpersonal relations in two-party e-chat discourse. *Language@Internet*, 2(3).

- Grace, A., Kemp, N., Martin, F. H., & Parrila, R. (2013). Undergraduates' attitudes to text messaging language use and intrusions of textisms into formal writing. *New Media & Society*. doi:10.1177/1461444813516832
- Graff, R. & Winn, W. (2006). Presencing "communion" in Perelman's New Rhetoric. *Philosophy & Rhetoric* 39 (1), 45-71.
- Graham, S. & Marvin, S. (2001). *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. London: Routledge.
- Green, J. (2007). Language: intrtxtlty. *Critical Quarterly*, 49(3), 124–128.
- Greene, R. W. (1998). Another materialist rhetoric. *Critical Studies in Mass Communication* 15 (1), 21-41.
- Greene, T.M. (1947). *The arts & the art of criticism*. Princeton: Princeton University Press.
- Greenfield, Patricia Marks. 1984. *Mind and Media: The Effects of Television, Video Games, and Computers*. Cambridge: Harvard UP.
- Grinter, R. E., Eldridge, M. A. (2001). y do tngrs luv 2 txt msg? In W. Prinz et al (eds.), *Proceedings of the seventh European conference on computer-supported cooperative work* (pp. 219-238). Netherlands: Kluwer Academic Publishers.
- Grodin, D. & Lindlof, T. R. (Eds.), *Constructing the self in a mediated world*. London: Sage.
- Grossberg, L. (1992). *We gotta get out of this place: Popular conservatism and postmodern culture*. New York: Routledge.
- Gruber, H. (2013). Mailing list communication. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 55-82). Berlin & Boston: De Gruyter Mouton.
- Grusin, R. (2010). *Premediation: Affect and mediality after 9/11*. New York: Palgrave Macmillan
- Guadano, R., & Cialdini, R. (2005). Online persuasion and compliance: social influence in the Internet and beyond. In Y. Amichai-Hamburger (Ed.), *The social net: Human behavior in cyberspace* (91-113). Oxford: Oxford University Press.
- Guattari, F. (2016). *Lines of flight: For another world of possibilities*. A. Goffey (Trans.). London: Bloomsbury Academic.
- Gumpert, G., & Cathcart, R. (Eds.) (1986). *Inter/Media: Interpersonal Communication in a Mediated World*. 3rd ed. NY & Oxford: Oxford UP.
- Habil, H. (2010). Functions and strategies of email communication at the workplace. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication*:

- language structures and social interaction* (pp. 479-489). Hershey, PA & New York: Information Science Reference.
- Habuchi, I. (2005). Accelerating reflexivity. In M. Ito, D. Okabe, & M. Matsuda (Eds.), *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life*. Cambridge: MIT Press.
- Hall, E. T. (1966). *The hidden dimension*. New York: Anchor Books.
- Hall, E. T. (1959). *The silent language*. New York: Doubleday & Company.
- Hall, J. A., Baym, N. K., & Miltner, K. M. (2014). Put down that phone and talk to me: Understanding the roles of mobile phone norm adherence and similarity in relationships. *Mobile Media & Communication* 2(2), p. 134-153.
- Hall, J. A., Pennington, N., & Lueders, A. (2014). Impression management and formation on Facebook: A lens model approach. *New Media & Society* 16(6): 958-982.
- Halliday, M. A. K. (2007). Anti-languages (1976). In J. Webster (Ed.), *Language and society. Volume 10 in the collected works of M. A. K. Halliday* (pp. 265-286). London & New York: Continuum.
- Halliday, M. A. K. (2005). Functional diversity in language as seen from a consideration of modality and mood in English. In *Studies in English Language* (pp. 164-235). London & New York: Continuum.
- Hancock, J. T. (2004). Verbal irony use in face-to-face and computer-mediated conversations. *Journal of Language and Social Psychology*, 23(4), 447-463.
- Hancock, J. T., & Dunham, P. J. (2001). Impression formation in computer-mediated communication revisited: an analysis of the breadth and intensity of impressions. *Communication Research*, 28(3), 325-347.
- Hancock, J. T., Gee, K., Ciaccio, K., & Lin, J. M. (2008). I'm sad you're sad: emotional contagion in CMC. In *Proceedings of CSCW '08: ACM Conference on Computer Supported Cooperative Work* (pp. 295-298). New York: ACM Press.
- Hancock, J. T., & Gonzales, A. (2013). Deception in computer-mediated communication. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 363-383). Berlin & Boston: De Gruyter Mouton.
- Hancock, J. T., Landrigan, C., & Silver, C. (2007). Expressing emotion in text-based communication. In *Proceedings of the SIGCHI conference on Human factors in computing systems - CHI '07* (pp. 929-932). New York: ACM Press.
- Hanks, W. F. (2009). Fieldwork on deixis. *Journal of Pragmatics*, 41, 10-24.
- Hanks, W. F. (1990). *Referential practice: Language and lived space among the Maya*. Chicago: University of Chicago Press.

- Hansen, M. B. N. (2006). Wearable space. In *Bodies in Code: Interfaces with Digital Media* (pp. 175-211). New York: Routledge.
- Hansen, M. (2000). *Embodying technesis: Technology beyond writing*. Ann Arbor: University of Michigan Press.
- Hård af Segerstad, Y. (2005a). Language in SMS – a sociolinguistic view. In Harper, R., Palen, L., & Taylor, A. (Eds.). *The inside text: social, cultural, and design perspectives on SMS* (pp. 33-51). Dordrecht: Springer.
- Hård af Segerstad, Y. (2005b). Language use in Swedish mobile text-messaging. In R. Ling & P.E. Pederson (Eds.), *Mobile Communications: Renegotiation of the Social Sphere* (pp. 313-333). London: Springer.
- Harper, R., Palen, L., & Taylor, A. (2005). *The inside text: social, cultural, and design perspectives on SMS*. Dordrecht: Springer.
- Harpine, W. D. (2004). “We want yer, McKinley”: Epideictic rhetoric in songs from the 1896 presidential campaign. *Rhetoric Society Quarterly* 34 (1), 73-88.
- Harré, R. & Parrott, W. G. (1996). *The emotions: Social, cultural and biological dimensions*. London: Sage.
- Harré, R., & van Langenhove, L. (1999). *Positioning theory: Moral contexts of intentional action*. Oxford: Blackwell Publishers Ltd.
- Harris, R. B., & Paradice, D. (2007). An investigation of the computer-mediated communication of emotions. *Journal of Applied Sciences Research*, 3(12), 2081–2090.
- Harrison, S., & Allton, D. (2013). Apologies in email. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 315-337). Berlin & Boston: De Gruyter Mouton.
- Hart, S. (2014). Rhetoric and dialogue in Hopkins’s “Spring and Fall: *To a Young Child*”: An approach through Burke and Levinas. *Rhetoric Review* 33 (1), 38-54.
- Harvey, D. (1996). *Justice, nature, and the geography of difference*. Cambridge, MA: Blackwell.
- Hassoun, D. (2014). Tracing attentions: Toward an analysis of simultaneous media use. *Television & New Media* 15(4), 271-288.
- Hauser, G. (1999). Aristotle on epideictic: The formation of public morality. *Rhetoric Society Quarterly* 29 (1), 5-23.
- Haviland, J. B. (1996). Projections, transpositions, and relativity. In J. J. Gumperz & S. C. Levinson, *Rethinking linguistic relativity*, pp. 271-323. Cambridge: Cambridge University Press.

- Haviland, J. B. (1992). Pointing, gesture spaces, and mental maps. In D. McNeill, *Language and gesture*, pp. 13-46. Cambridge: Cambridge University Press.
- Hayden, C., Waisanen, D., & Osipova, Y. (2013). Facilitating the conversation: The 2012 US presidential election and public diplomacy through social media. *American Behavioral Scientist* 57 (11), 1623-1642.
- Heims, S.J. (1982). *John von Neumann and Norbert Wiener: From mathematics to the technologies of life and death*. Cambridge, MA & London: MIT Press.
- Heisler, J., & Crabill, S. (2006). Who are “stinkybug” and “Packerfan4”? Email pseudonyms and participants’ perceptions of demography, productivity, and personality. *Journal of Computer-Mediated Communication*, 12(1): 114-135.
- Hellerstein, L. (1989). Creating social reality with computer-mediated communication. Dissertation. University of Massachusetts, Department of Communication.
- Helles, R. (2013). Mobile communication and intermediality. *Mobile media & Communication* 1(1), 14-19.
- Hentschel, E. (1998). Communication on IRC. *Linguistik Online*, 1. Retrieved from <http://www.linguistik-online.de/irc.htm>
- Hentschel, E. (2010). Using CMC to investigate the language system. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 866-875). Hershey, PA & New York: Information Science Reference.
- Herman, D. (2007). Storytelling and the sciences of the mind: cognitive narratology, discursive psychology, and narrative in face-to-face interaction. *Narrative* 15, 306-334.
- Herring, S. C. (2013). Relevance in computer-mediated conversation. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 246-268). Berlin & Boston: De Gruyter Mouton.
- Herring, S. C. (2010a). Who’s got the floor in computer-mediated conversation? Edelsky’s gender patterns revisited. *Language@Internet*, 7.
- Herring, S. C. (2010b). Computer-mediated conversation: introduction and overview. *Language@Internet*, 7.
- Herring, S. C. (2007). A faceted classification scheme for computer-mediated discourse. *Language@Internet*, 1.
- Herring, S. C. (2004a). Computer-mediated discourse analysis: an approach to researching online behavior. In S. A. Barab, R. Kling, & J. H. Gray (Eds.), *Designing for Virtual Communities in the Service of Learning* (pp. 338–376). New York: Cambridge University Press.

- Herring, S. C. (2004b). Content analysis for new media: rethinking the paradigm. In *New research for new media: innovative research methodologies symposium working papers and readings* (pp. 47–66). Minneapolis, MN: University of Minnesota School of Journalism and Mass Communication.
- Herring, S. C. (2004c). Slouching toward the ordinary: current trends in computer-mediated communication. *New Media & Society*, 6(1), 26–36.
- Herring, S. C. (2003). Gender and power in online communication. In J. Holmes & M. Meyerhoff (Eds.), *The handbook of language and gender* (pp. 202–228). Oxford: Blackwell.
- Herring, S. C. (2000). Gender differences in CMC: findings and implications. *The CPSR newsletter*, Winter. Available at <http://www.cpsr.org/publications/newsletters/issues/2000/Winter2000/herring.html>.
- Herring, S. C. (1999a). Interactional coherence in CMC. *Journal of Computer-Mediated Communication*, 4(4).
- Herring, S. C. (1999b). The rhetorical dynamics of gender harassment on-line. *The Information Society*, 15(3): 151–167.
- Herring, S. C. (1996). Posting in a different voice: gender and ethics in computer-mediated communication. In C. Ess (ed.), *Philosophical perspectives on computer-mediated communication* (pp. 115–145). Albany: State University of New York Press.
- Herring, S. C., & Martinson, A. (2004). Assessing gender authenticity in computer-mediated language use: evidence from an identity game. *Journal of Language and Social Psychology*, 23(4), 424–446.
- Herring, S. C., & Paolillo, J. C. (2006). Gender and genre variation in weblogs. *Journal of Sociolinguistics*, 10(4), 439–459.
- Herring, S. C., Scheidt, L. A., Wright, E., & Bonus, S. (2005). Weblogs as a bridging genre. *Information Technology & People*, 18(2), 142–171.
- Herring, S. C., Stein, D., & Virtanen, T. (2013). *Pragmatics of computer-mediated communication*. Berlin: De Gruyter Mouton.
- Herring, S. C. & Zelenkauskaitė, A. (2009). Symbolic capital in a virtual market. *Written Communication*, 26(1): 5–31.
- Hesse, B. W., Werner, C. M., & Altman, I. (1988). Temporal aspects of computer-mediated communication. *Computers in Human Behavior*, 4(2), 147–165.
- Heyd, T. (2008). *Email hoaxes: form, function, genre ecology*. Amsterdam & Philadelphia: John Benjamins Publishing Company.

- Hesse, B. W., Werner, C. M., & Altman, I. (1988). Temporal aspects of computer-mediated communication. *Computers in Human Behavior*, 4(2), 147–165.
- Hickman, M. & Robert, S. (eds.). (2011). *Space in languages*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Hiemstra, G. (1982). Teleconferencing, concern for face, and organizational culture. In M. Burgoon (Ed.), *Communication yearbook 6* (pp. 874-904). Beverly Hills, CA: Sage.
- High, A. C., Oeldorf-Hirsch, A., & Bellur, S. Misery rarely gets company: the influence of emotional bandwidth on supportive communication on Facebook. *Computers in Human Behavior*, 34, 79-88.
- Hill, C. A. & Helmers, M. (2004). *Defining visual rhetorics*. Mahwah, NJ: Lawrence Erlbaum.
- Hiltz, S. R., & Turroff M. (1993). *The network nation: human communication via computer*. Revised edition. Cambridge & London: MIT Press.
- Hiltz, S. R., & Turroff M. (1978). *The network nation: human communication via computer*. Reading: Addison-Wesley.
- Hiltz, S. R., Johnson, K., & Agle, G. (1978). Replicating Bales' problem solving experiments on a computerized conference: a pilot study. Research report No. 8. Newark: New Jersey Institute of Technology, Computerized Conferencing and Communications Center.
- Hindmarsh, J. & Heath, C. (2000). Embodied reference: A study of deixis in workplace interaction. *Journal of Pragmatics* 32, 1855-1878.
- Hine, C. (2015). *Ethnography for the internet: Embedded, embodied, and everyday*. London & New York: Bloomsbury Academic.
- Hinrichs, L. (2006). *Codeswitching on the web: English and Jamaican Creole in e-mail communication*. Amsterdam: John Benjamins.
- Ho, V. (2013). The need for identity construction in computer-mediated professional communication: a community practice perspective. In R. Luppigini (Ed.), *Handbook of research on technoself: Identity in a technological society* (pp. 502-530). Hershey, PA: Information Science Reference.
- Hodge, R., & Kress, G. (1988). *Social semiotics*. Ithaca: Cornell University Press.
- Hogan, B. (2010). The presentation of self in the age of social media: distinguishing performances and exhibitions online. *Bulletin of Science, Technology & Society*, 30(6): 377-386.
- Hogan, B. & Quan-Haase, A. Persistence and change in social media. *Bulletin of Science, Technology, & Society*, 30(5), 309-315.

- Hölfich, J. R. & Gebhardt, J. (2005). Changing cultures of written communication: letter – email – SMS. In Harper, R., Palen, L., & Taylor, A. (Eds.). *The inside text: social, cultural, and design perspectives on SMS* (pp. 9-31). Dordrecht: Springer.
- Holmer, T. (2008). Discourse Structure Analysis of Chat Communication. *Language@Internet*, 5.
- Holtgraves, T. (2011). Text messaging, personality, and the social context. *Journal of Research in Personality*, 45(1), 92–99.
- Holtgraves, T., & Paul, K. (2013). Texting versus talking: An exploration in telecommunication language. *Telematics and Informatics*, 30(4), 289–295.
- Honeycutt, C., & Herring, S. C. (2009). Beyond Microblogging: Conversation and Collaboration via Twitter. In *Proceedings of the 42nd Hawai'i International Conference on System Sciences (HICSS-42)*. Los Alamitos, CA: IEEE Press.
- Horowitz, R. & Samuels, J.S. (1987). Comprehending oral and written language: Critical contrasts for literacy and schooling. In R. Horowitz & J.S. Samuels (Eds.), *Comprehending oral and written language* (pp. 1-52). New York: Academic Press.
- Hoskins, A. (2004). Television and the collapse of memory. *Time & Society*, 13 (1), 109-127.
- Hössjer, A. (2013). Small talk, politeness, and email communication in the workplace. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 614-638). Berlin & Boston: De Gruyter Mouton.
- Howard-Pitney, D. (1990). *The Afro-American jeremiads: Appeals for justice in America*. Philadelphia: Temple University Press.
- Howell-Richardson, C. (2010). A pragmatic approach to analyzing CMC discourse. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 759-775). Hershey, PA & New York: Information Science Reference.
- Howie, D. & Peters, M. (1996). Positioning theory: Vygotsky, Wittgenstein, and social constructionist psychology. *Journal for the Theory of Social Behaviour*, 26 (1), 51-64.
- Houghton, D. (2010). Linguistic markers to self-disclosure of sensitive information on Twitter. Presented at the Association of Internet Researchers Conference.
- Hsieh, S. C., Wang, M.-R., & Wang, M. C. (2014). The interaction between Mandarin Chinese and English: Online language is changing contemporary Mandarin Chinese in Taiwan. *Journal of Asian Pacific Communication*, 24(1), 113–133.
- Hu, K. (2014). Competition and collaboration: Chinese video websites, subtitle groups, state regulation and market. *International Journal of Cultural Studies* 17(5), 437-451.

- Huang, A. H., Yen, D. C., & Zhang, X. (2008). Exploring the potential effects of emoticons. *Information & Management*, 45(7), 466–473.
- Huffaker, D. A., & Calvert, S. L. (2005). Gender, identity, and language use in teenage blogs. *Journal of Computer-Mediated Communication*, 10(2).
- Humphreys, L., Gill, P., Krishnamurthy, B., & Newbury, E. (2013). Historicizing new media: A content analysis of Twitter. *Journal of Communication*, 63(3), 413–431.
- Hussey, K. A., & Katz, A. N. (2006). Metaphor production in online conversation: gender and friendship status. *Discourse Processes*, 42(1), 75–98.
- Hutchby, I. (2001). Technologies, texts and affordances. *Sociology* 35 (2), 441–456.
- Hutchby, I. & Tanna, V. (2008). Aspects of sequential organization in text message exchange. *Discourse & Communication*, 2(2), 143–164,
- Hutchins, E. (1995). *Cognition in the Wild*. Cambridge: MIT Press.
- Hyde, MJ. (2005). Acknowledgment, conscience, rhetoric & teaching: The case of *Tuesdays with Morrie*. *Rhetoric Society Quarterly* 35 (2), 22–46.
- Hymes, D. (1996). *Ethnography, linguistics, narrative inequality: Toward an understanding of voice*. London: Taylor & Francis.
- Iacobani, M. (2008). The role of premotor cortex in speech perception: evidence from fMRI and rTMS. *Journal of Physiology-Paris*, 102, 31–34.
- Ingold T. 2007. *Lines: A Brief History*. London & NY: Routledge.
- Innis, R. E. (1982). *Karl Bühler: Semiotic foundations of language theory*. New York & London: Plenum Press.
- Ito, M., et al (Eds.). (2010). *Hanging out, messing around, and geeking out: kids living and learning with new media*. Cambridge: MIT Press.
- Itou, J., Motojin, Y., Munemori, J. (2013). Development of Manga-style chat system aiming to communicate nonverbal expression. *Procedia Computer Science*, 22, 745–752.
- Jacobson, D. (2007). Interpreting instant messaging: context and meaning in computer-mediated communication. *Journal of Anthropological Research*, 63(3), 359–381.
- Jacobson, D. (1999). Impression formation in cyberspace: online expectations and offline experiences in text-based virtual communities. *Journal of Computer-Mediated Communication*, 5(1), 1–21.
- Jaffe, A. (Ed.) (2009). *Stance: Sociolinguistic perspectives*. Oxford: Oxford University Press.

- Janssen, J. H., IJsselsteijn, W. A., & Westerink, J. H. D. M. (2014). How affective technologies can influence intimate interactions and improve social connectedness. *International Journal of Human-Computer Studies*, 72(1), 33–43.
- Java, A., Song, X., Finan, T., & Tseng, B. (2007). Why we twitter: understanding microblogging usage and communities. In *Proceedings of the Joint 9th WEBKDD and 1st SNA-KDD Workshop '07* (pp. 56-65). New York: ACM.
- Jaworski, A., & Thurlow, C. (2011). Trading places, locating self: Embodiment and remediation in/of tourist spaces. *Visual Communication*, 10 (3), 349-366.
- Jaworski, A., & Thurlow, C. (Eds.) (2010). *Semiotic landscapes: language, image, space*. London & New York: Continuum.
- Jay, M. (1993). *Downcast eyes: The denigration of vision in twentieth-century French thought*. Berkeley: University of California Press.
- Jenkins, H., Clinton, K., Purushotma, R., Robinson, A. J., & Weigel, M. (2006). Confronting the challenges of participatory culture: media education for the 21st century. Chicago: MacArthur Foundation.
- Jenks, C., & Firth, A. (2013). Synchronous voice-based computer mediated communication. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 217-241). Berlin & Boston: De Gruyter Mouton.
- Jensen, J. L. & Sørensen, A. S. (2013). “Nobody has 257 friends”: Strategies of friending, disclosure and privacy on Facebook. *Nordicom Review* 34 (1), 49-62.
- Jewitt, C. (Ed.) (2009). *The Routledge handbook of multimodal analysis*. London & New York: Routledge.
- Jibril, T. A., & Abdullah, M. H. (2013). Relevance of emoticons in computer-mediated communication contexts: an overview. *Asian Social Science*, 9(4), 201–207.
- Jones, G. M., & Schieffelin, B. (2009). Talking text and talking back: “My BFF Jill” from boob tube to YouTube. *Journal of Computer-Mediated Communication* 14(4), 1050-1079.
- Jones, G. M., Schieffelin, B. B., & Smith, R. E. (2011). When friends who talk together stalk together: online gossip as metacommunication. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: language in the new media* (pp. 26-47). Oxford: Oxford University Press.
- Jones, R. H. (2013a). Rhythm and timing in chat room interaction. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 490-513). Berlin & Boston: De Gruyter Mouton.

- Jones, R. H. (2013b). C me Sk8: Discourse, technology, and “bodies without organs”. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: Language in new media* (pp. 321-339). Oxford: Oxford University Press.
- Jones, R. H. (2010). Cyberspace and physical space: Attention structures in computer mediated communication. In A. Jaworski & C. Thurlow (Eds.), *Semiotic Landscapes: Language, Image, Space* (pp. 151-167). London & New York: Continuum.
- Jones, R. H. (2009). Technology and sites of display. In C. Jewitt (ed.), *Routledge handbook of multimodal analysis* (pp. 114-126). London & New York: Routledge.
- Jones, R. H. (2005). Sites of engagement as sites of attention: time, space and culture in electronic discourse. In S. Norris & R. H. Jones (Eds.), *Discourse in Action: Introducing Mediated Discourse Analysis* (pp. 141-154). London: Routledge.
- Jones, R. H. (2004). The problem of context in computer-mediated communication. In P. LeVine & R. Scollon (Eds.), *Discourse and technology: multimodal discourse analysis* (pp. 20-33). Washington DC: Georgetown University Press.
- Jones, R. H., Chik, A., & Hafner, C. A. (2015). *Discourse and digital practices: Doing discourse analysis in the digital age*. London & New York: Routledge.
- Jones, S. (Ed.) (1999). *Doing internet research: critical issues and methods for examining the net*. Thousand Oaks: Sage.
- Jones, S. G. (Ed.) (1997). *Virtual culture: Identity and communication in cyberspace*. Thousand Oaks: Sage.
- Jones, S. G. (Ed.) (1995). *Cybersociety: computer-mediated communication and community*. Thousand Oaks: Sage.
- Jost, W. (2004). Epiphany and epideictic: The low modernist lyric in Robert Frost. In W. Jost & W. Olmstead (eds), *A Companion to Rhetoric and Rhetorical Criticism*, pp. 311-324. Malden, MA: Blackwell.
- Jucker, A. H., & Dürscheid, C. (2012). The linguistics of keyboard-to-screen communication. A terminological framework. *Linguistik Online*, 56(6/12), 39–64.
- Kadir, Z. A., Idris, H., & Husain, S. S. S. (2012). Playfulness and creativity: a look at language use online in Malaysia. *Procedia - Social and Behavioral Sciences*, 65: 404–409.
- Kalman, Y. M., & Gergle, D. (2014). Letter repetitions in computer-mediated communication: A unique link between spoken and online language. *Computers in Human Behavior* 34, 187-193.
- Kalman, Y. M., & Rafaeli, S. (2011). Online pauses and silence: chronemic expectancy violations in written computer-mediated communication. *Communication Research*, 38(1): 54-69.

- Kappas, A., & Krämer, N. C. (2011). *Face-to-face communication over the internet: emotions in a web of culture, language and technology*. Cambridge: Cambridge University Press.
- Karatzogianni, A. & Robinson, A. (2010). *Power, resistance, and conflict in the contemporary world: Social movements, networks, and hierarchies*. London: Routledge.
- Karatzogianni, A. & Schandorf, M. (2015). Surfing the revolutionary wave 2010-12: A technosocial theory of agency, resistance and orders of dissent in contemporary social movements. In A. D. Ornella, *Making humans: Religious, technological and aesthetic perspectives*, pp.43-74. Oxford: Inter-Disciplinary Press.
- Kasesniemi, E.-L., & Rautianinen, P. (2002). Mobile culture of children and teenagers in Finland. In J. E. Katz & M. A. Aakhus (Eds.), *Perpetual contact: mobile communication, private talk, and public performance* (pp. 170-192). Cambridge: Cambridge University Press.
- Katsuno, H., & Yano, C. R. (2002). Face to face: online subjectivity in contemporary Japan. *Asian Studies Review*, 26(2), 205–231.
- Katz, J. E., & Aakhus, M. A. (2002). Conclusion: making meaning of mobiles – a theory of *Apparatgeist*. In J. E. Katz & M. A. Aakhus, *Perpetual contact: mobile communication, private talk, public performance* (pp. 301-318). Cambridge: Cambridge University Press.
- Kaul, A. & Kulkarni, V. (2010). Gender and politeness in Indian emails. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 389-410). Hershey, PA & New York: Information Science Reference.
- Kavanagh, B. (2010). A Cross-Cultural Analysis of Japanese and English Non-Verbal Online Communication: The Use of Emoticons in Weblogs. *Intercultural Communication Studies*, 19(3), 65–80.
- Kayan, S., Fussell, S. R., & Setlock, L. D. (2006). Cultural differences in the use of instant messaging in Asia and North America. *Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work - CSCW '06*, 525–528.
- Kendon, A. (1990). *Conducting interaction: Patterns of behavior in focused encounters*. Cambridge: Cambridge University Press.
- Kendon, A. (1981). *Nonverbal communication, interaction, and gesture: Selections from Semiotica* (pp. 13-14). The Hague, Paris & NY: Mouton Publishers.
- Kennedy, H. (2006). Beyond anonymity, or future directions for internet identity research. *New Media & Society*, 8(6), 859-876.
- Keränen, L. (2001). The Hippocratic Oath as epideictic rhetoric: Reanimating medicine's past for its future. *Journal of the Medical Humanities* 22 (1), 55-68.

- Kiesler, S. (1986). Thinking ahead: the hidden messages in computer networks. *Harvard Business Review*, (Jan/Feb), 46–60.
- Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer-mediated communication. *American Psychologist*, 39(10), 1123-1134.
- Kiesler, S., Zubrow, D., Moses, A. M., & Geller, V. (1985). Affect in computer-mediated communication: an experiment in synchronous terminal-to-terminal discussion. *Human-Computer Interaction*, 1(1), 77-104.
- Kirkgöz, Y. (2010). Analyzing the discourse of e-mail communication. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 335-348). Hershey, PA & New York: Information Science Reference.
- Kitayama, S., & Uskul, A. K. (2011). Culture, mind, and the brain: current evidence and future directions. *Annual Review of Psychology*, 62, 419-449.
- Klein, W. (1983). Deixis and spatial orientation in route directions. In H. L. Pick & L. P. Acredolo (eds.), *Spatial orientation: Theory, research, and application*, pp. 283-311. New York & London: Plenum Press.
- Klima, E. S. & Bellugi, U. (1979). *The signs of language*. Cambridge: Harvard University Press.
- Ko, K.-K. (1996). Structural characteristics of computer-mediated language: a comparative analysis of InterChange discourse. *Electronic Journal of Communication*, 6(3). Retrieved from: <http://www.cios.org/EJCPUBLIC/006/3/006315.HTML> 10 Feb 2014.
- Kochen, M. (1978). Long-term implications of electronic information exchanges for information science. *Bulletin of the American Society for Information Science*, 4, 22-23.
- Kochin, M. S. (2009). *Five chapters on rhetoric: Character, action, things, nothing, and art*. University Park, PA: Pennsylvania State University Press.
- Kofod-Peterson, A., & Wegener, R. (2010). Like a poke on Facebook emergent semantics in location-aware network services. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 497-512). Hershey, PA & New York: Information Science Reference.
- Konjin, E. A., Utz, S., Tains, M., & Barnes, S. B. (2008). *Mediated interpersonal communication*. New York & London: Routledge.
- Korta, K. (2008). Malinowski and pragmatics: Claim making in the history of linguistics. *Journal of Pragmatics* 40, 1645-1660.
- Kortmann, B. (2010). Forward. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. xxxii-xxxiv). Hershey, PA & New York: Information Science Reference.

- Kostogriz, A. (2011). Putting “space” on the agenda of sociocultural research. *Mind, Culture, and Activity* 13 (3), 176-190.
- Kouper, I. (2010). The pragmatics of peer advice in a LiveJournal community. *Language@Internet*, 7.
- Koutsogiannis, D., & Mitsikopoulou, B. (2003). Greeklish and Greekness: trends and discourses of “glocalness.” *Journal of Computer-Mediated Communication*, 9(1).
- Kövecses, Z. (2000). *Metaphor and Emotion: Language, Culture, and Body in Human Feeling*. Cambridge: Cambridge University Press.
- Kragh, K. J. & Lindschouw, J. (eds.). (2013). *Deixis and pronouns in Romance languages*. Amsterdam & Philadelphia: Johns Benjamins Publishing Company.
- Krause, A. E., North, A. C., & Heritage, B. (2014). The uses and gratifications of using Facebook music listening applications. *Computers in Human Behavior* 39, 71-77.
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. London & New York: Routledge.
- Kress, G. (2003). *Literacy in the new media age*. London: Routledge.
- Kress, G., & van Leeuwen, T. (2006). *Reading Images: The grammar of visual design*. 2nd edition. London & New York: Routledge.
- Kristeva, J. (1984). *Revolution in poetic language*. New York: Columbia University Press.
- Kruger, J., Epley, N., Parker, J., & Ng, Z.-W. (2005). Egocentrism over e-mail: can we communicate as well as we think? *Journal of Personality and Social Psychology*, 89(6), 925–36.
- Krzych, S. (2010). Phatic touch, or the instance of the gadget in the unconscious. *Paragraph* 33 (3), 376-391.
- Ku, Y. -C., Chu, T. -H, & Tseng, C. -H. (2013). Gratifications for using CMC technologies: a comparison among SNS, IM, and e-mail. *Computers in Human Behavior*, 29(1), 226-234.
- Kuah-Pearce, K. E. (2008). *Chinese women and the cyberspace*. Amsterdam: Amsterdam University Press.
- Kühl, H. S., Kalan, A. K., Arandjelovic, M., Aubert, F., D’Auvergne, L, Goedmakers, A., et al. (2016). Chimpanzee accumulative stone throwing. *Nature Scientific Reports*, 6, no. 22219. doi:10.1038/srep22219. <http://www.nature.com/articles/srep22219>
- Kulkarni, D. (2014). Exploring Jakobson’s “phatic function” in instant messaging interactions. *Discourse & Communication*, 8(2), 117–136.

- Kumpulainen, K., & Mikkola, A. (2014). Boundary crossing of discourses in pupils' chat interaction during computer-mediated collaboration. *Learning, Culture and Social Interaction*, 3(1), 43–53.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108, 480–98.
- Kwon, O., Kim, C.-R., & Kim, G. (2013). Factors affecting the intensity of emotional expressions in mobile communications. *Online Information Review*, 37(1), 114–131.
- Lai, C. -H. (2013) Can our group survive? An investigation of the evolution of mixed-mode groups. *Journal of Computer-Mediated Communication* 19(4), 839-854.
- Lakoff, G. (1987). *Women, fire, and dangerous things: what categories reveal about the mind*. Chicago & London: University of Chicago Press.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
- Landsberg, A. (1995). Prosthetic memory: *Total Recall* and *Blade Runner*. In M. Featherstone & R. Burrows (Eds.), *Cyberspace/cyberbodies/cyberpunk*, pp. 175-189. London: Sage Publications.
- Langfur, S. (2013). The You-I event: On the genesis of self-awareness. *Phenomenology and the Cognitive Sciences*, 12 (4), 769-790.
- Lapadat, J. C. (2002). Written interaction: a key component in online learning. *Journal of Computer-Mediated Communication*, 7(4).
- LaRose, R., & Eastin, M. S. (2004). A social cognitive theory of internet uses and gratifications: toward a new model of media attendance. *Journal of Broadcasting & Electronic Media*, 48(3), 358-377.
- Lash, S. (2002). *Critique of information*. London: Sage.
- Latzko-Toth, G. (2010). Metaphors of synchrony: emergence and differentiation of online chat devices. *Bulletin of Science, Technology & Society*, 30(5), 362-374.
- Lauer, I. (2015). Epideictic rhetoric. *Communication Research Trends* 34 (2), 4-18.
- Laursen, D. (2012). Sequential organization of text messages and mobile phone calls in interconnected communication sequences. *Discourse & Communication*, 6(1), 83–99.
- Laursen, D., & Szymanski, M. H. (2013). Where are you? Location talk in mobile phone conversations. *Mobile Media & Communication*, 1(3), 314-334.
- Laver, J. (1981). Linguistic routines and politeness in greeting and parting. In F. Coulman (ed.), *Conversational routine: Explorations in standardized communication situations and prepatterned speech*, pp. 289-304. The Hague: Mouton Publishers.

- Laver, J. (1975). Communicative functions of phatic communion. In A. Kendon, R. M. Harris, & M. R. Key (eds.), *Organization of behavior in face-to-face interaction*, pp. 215-238. The Hague: Mouton Publishers.
- Laver, J. D. M. (1968). Voice quality and indexical information. *British Journal of Disorders of Communication* 3 (1), 43-54.
- Lawson, B. (2001). *The language of space*. Oxford: Architectural Press.
- Le Guin, U. K. (2004). *The wave in the mind: Talks and essays on the writer, the reader, and the imagination*. Boston: Shambala.
- Lea, M. (1991). Rationalist assumptions in cross-media comparisons of computer-mediated communication. *Behaviour & Information Technology*, 19(2), 153-172.
- Lea, M., & Spears, R. (1992). Paralanguage and social perception in computer-mediated communication. *Journal of Organizational Computing*, 2(3&4), 321-341.
- Lea, M. & Spears, R. (1991). Computer mediated communication, De-individuation and group decision making. *International Journal of Man-Machine Studies*, 39(3&4), 283-301.
- Ledbetter, A. M., & Larson, K. A. (2008). Nonverbal cues in e-mail supportive communication: associations with sender sex, recipient sex, and support satisfaction. *Information, Communication & Society*, 11(8), 1089-1110.
- LeDoux, J. (1996). *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*. New York: Touchstone.
- Lee, C. K.-M. (2007a). Affordances and text-making practices in online instant messaging. *Written Communication* 24(3): 223-249.
- Lee, C. K. -M. (2007b). Text-making practices beyond the classroom context: Private instant messaging in Hong Kong. *Computers and Composition*, 24(3), 285-301.
- Lee, C. K. -M. (2007c). Linguistic features of e-mail and ICQ instant messaging in Hong Kong. In B. Danet & S. C. Herring (Eds.), *The multilingual internet: language, culture, & communication online* (pp. 184-208). New York & Oxford: Oxford University Press.
- Lee, C. K. M. (2011). Micro-blogging and status updates on *Facebook*: texts and practices. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: language in the new media* (pp. 110-128). Oxford: Oxford University Press.
- Lee, C. (2013). "My English is so poor... so I take photos": Metalinguistic discourses about English on Flickr. In D. Tannen & A. M. Trester, *Discourse 2.0: language and new media* (pp. 73-83). Washington DC: Georgetown University Press.

- Lee, E. K. (2013). Formation of a talking space and gender discourses in digital diaspora space: case of Korean female im/migrants online community in the USA. *Asian Journal of Communication*. Published online before print March 11, 2013.
- Lefebvre, H. (2004). *Rhythmanalysis: Space, time and everyday life*. S. Elden & G. Moore (Trans.). London & New York: Continuum.
- Lefebvre, H. (1991). *The Production of Space*. D. Nicholson-Smith (Trans.). Malden, MA: Blackwell.
- Leff, M. & Utley, E. A. (2004). Instrumental and constitutive rhetoric in Martin Luther King Jr.'s "Letter from a Birmingham jail." *Rhetoric & Public Affairs* 7 (1), 37-52.
- Lehti, L. (2011). Blogging politics in various ways: a typology of French politicians' blogs. *Journal of Pragmatics*, 43(6), 1610-1627.
- Lei, E. V. & Miller, K. D. (1999). Martin Luther King Jr.s' "I Have a Dream" in context: Ceremonial protest and African American jeremiad. *College English* 62 (1), 83-99.
- Lemos, A. (2010). Post-mass media functions, locative media, and informational territories: new ways of thinking about territory, place, and mobility in contemporary society. *Space and Culture*, 13, 403-420.
- Lenz, F. (ed.). (2003). *Deictic conceptualization of space, time and person*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Leppänen, S., Pitkänen-Huhta, A., Piirainen-Marsh, A., Nikula, T., & Peuronen, S. (2009). Young people's translocal new media uses: a multiperspective analysis of language choice and heteroglossia. *Journal of Computer-Mediated Communication*, 14(4), 1080-1107.
- Levinson, S. C. (2004). *Space in language and cognition: Explorations in cognitive diversity*. Cambridge: Cambridge University Press.
- Levinson, S. C. (1983). *Pragmatics*. Cambridge: Cambridge University Press.
- Levinson, S.C. & Wilkins, D. P. (2006). *Grammars of space: Explorations in cognitive diversity*. Cambridge: Cambridge University Press.
- Lewes, GH. (1875). *Problems of life and mind (First Series)*, 2. London: Trubner.
- Lewin, K. (1936). *Principles of topological psychology*. F. Heider & G. M. Heider (trans.). New York & London: McGraw-Hill Book Company, Inc.
- Lewin-Jones, J., & Mason, V. (2014). Understanding style, language and etiquette in email communication in higher education: A survey. *Research in Post-Compulsory Education* 19(1), 75-90.

- Leurs, K. (2012). Migrant youth invading digital spaces: intersectional performativity of self in socio-technological networks. In Y. J. Oh & R. Gajjala (Eds.), *Cyberfeminism 2.0* (pp. 285-304). Bern: Peter Lang Publishing.
- Leurs, K. & Ponzanesi, S. (2011). Dutch Moroccan girls performing their selves in instant messaging spaces. In K. Ross (Ed.), *The handbook of gender, sex and the media* (pp. 436-454). Oxford: Wiley-Blackwell.
- Levin, D. M. (Ed.). (1992). *Modernity and the hegemony of vision*. Berkeley: University of California Press.
- Lévy, P. (1997). *Collective intelligence: Mankind's emerging world in cyberspace*. New York & London: Penum Press.
- Lewis, C. & Fabos, B. (2005). Instant messaging, literacies, and social identities. *Reading Research Quarterly*, 40(4), 470-501.
- Leyton, M. (2006). *Shape as memory: A geometric theory of architecture*. Basel: Birkhäuser.
- Li, C., Shi, X., & Dang, J. (2014). Online communication and subjective well-being in Chinese college students: the mediating role of shyness and social self-efficacy. *Computers in Human Behavior*, 34, 89-95.
- Lindemann, K. (2005). Live(s) online: narrative performance, presence, and community in LiveJournal.com. *Text and Performance Quarterly*, 25(4), 354-372.
- Lindholm, L. (2013). The maxims of online nicknames. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 437-461). Berlin & Boston: De Guyter Mouton.
- Ling, R. (2005). The socio-linguistics of SMS: An analysis of SMS use by a random sample of Norwegians. In R. Ling & P. Pederson (Eds.), *Mobile Communications: Renegotiation of the Social Sphere* (pp. 335-349). London: Springer.
- Ling, R. (2008). *New tech, new ties: how mobile communication is reshaping social cohesion*. Cambridge: MIT Press.
- Ling, R. & Baron, N. S. (2013). In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 191-215). Berlin & Boston: De Guyter Mouton.
- Ling, R., & Baron, N. S. (2007). Text Messaging and IM: Linguistic Comparison of American College Data. *Journal of Language and Social Psychology*, 26(3), 291-298.
- Ling, R., & Pederson, P. (Eds.). (2005). *Mobile Communications: Renegotiation of the Social Sphere*. London: Springer.

- Ling, R., & Yttri, B. (2002). Hyper-coordination via mobile phones in Norway. In J. E. Katz & M. A. Aakhus (Eds.), *Perpetual contact: mobile communication, private talk, public performance* (pp. 139-169). Cambridge: Cambridge University Press.
- Litt, E., & Hargittai, E. (2014). A bumpy ride on the information superhighway: exploring turbulence. *Computers in Human Behavior* 36, 520-529.
- Livia, A. (1999). Doing sociolinguistic research on the French Minitel. *American Behavioral Scientist*, 43(3), 422-435.
- Livingstone, S. (2008). Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy, and self-expression. *New Media & Society*, 10(23), 393-411.
- Lloyd, C., & Gillard, P. (2010). Discursive practices and creation of identity using the mobile phone. In R. Taiwo (Ed.), *Handbook of research on discursive behavior and digital communication: language structures and social interaction* (pp. 1-17). Hershey, PA & New York: Information Science Reference.
- Lo, S.-K. (2008). The nonverbal communication functions of emoticons in computer-mediated communication. *CyberPsychology & Behavior*, 11(5), 595-7.
- Locher, M. A. (2010). Introduction: politeness and impoliteness in computer-mediated communication. *Journal of Politeness Research*, 6(1), 1-5.
- Lockwood, R. (1996). *The reader's figure: epideictic rhetoric in Plato, Aristotle, Bossuet, Racine and Pascal*. Genève: Librairie Droz.
- Lodge, M., & Taber, C. (2000). Three steps toward a theory of motivated political reasoning. In *Elements of Reason: Cognition, Choice and Bounds of Rationality*, pp. 183-213. Cambridge: Cambridge University Press.
- Lomborg, S. (2012). Negotiating privacy through phatic communication. A case study of the blogging self. *Philosophy & Technology* 25, 415-434.
- Lorenzo-Dus, M., Blitvich, P. G.-C., & Bou-Franch, P. (2011). On-line polylogues and impoliteness: the case of postings sent in response to the Obama Reggaeton YouTube video. *Journal of Pragmatics*, 43(10), 2578-2593.
- Lou, M. M., & Remus, W. (2014). Uses and gratifications and acceptance of web-based information services: An integrated model. *Computers in Human Behavior* 38, 281-295.
- Lövheim, M. (2013). Negotiating empathic communication: Swedish female top-bloggers and their readers. *Feminist Media Studies* 13 (4), 613-628.
- Lucy, J. A. (1998). Space in language and thought: commentary and discussion. *Ethos* 26 (1), 105-111.

- Lueg, C. & Fisher, D. (eds.). (2003). *From Usenet to cowebs: Interacting with social information spaces*. London: Springer-Verlag Limited.
- Luker, R. E. (2003). Quoting, merging, and sampling the dream: Martin Luther King and Vernon Johns. *Southern Cultures* 9 (2), 28-48.
- Luppigini, R. (Ed.) (2013). *Handbook of research on technoself: identity in a technological society*. Hershey, PA: Information Science Reference.
- Lyons, J. (1972). Human language. In R.A. Hinds (ed.), *Non-verbal communication*, pp. 49-85. Cambridge: Cambridge University Press.
- Mackiewicz, J. (2003). Which rules for online writing are worth following? A study of eight rules in eleven handbooks. *IEEE Transactions on Professional Communication*, 46(2), 129-138.
- Madianou, M. & Miller, D. (2012). *Migration and new media: transnational families and polymedia*. London: Routledge.
- Mahay, J. (2013). "Their lives are so much better than ours! The ritual (re)construction of social identity in holiday cards. In D. Tannen & A.M. Trester, *Discourse 2.0: language & new media* (pp. 85-98). Washington DC: Georgetown University Press.
- Maiz-Arevalo, C., & Garcia-Gomez, A. (2013). "You look terrific!" Social evaluation and relationships in online compliments. *Discourse Studies*, 15(6), 735-760.
- Malinowski, B. (1923). The problem of meaning in primitive languages. In C. K. Ogden & I. A. Richards (eds.), *The meaning of meaning: A study of the influence of language upon thought and of the science of symbolism*, pp.296-336. New York: Harcourt, Brace & World, Inc.
- Maness, J. M. (2008). A linguistic analysis of chat reference conversations with 18-24 year old college students. *Journal of Academic Librarians* 34(1), 31-38.
- Mann, C., & Stewart, F. (2000). *Internet communication and qualitative research: A handbook for researching online*. London: Sage.
- Marciano, A. (2014). Living the virtureal: Negotiating transgender identity in cyberspace. *Journal of Computer-Mediated Communication* 19(4), 824-838.
- Marcoccia, M., Atifi, H, & Gauduchau, N. (2008). Text-centered versus multimodal analysis of instant messaging conversation. *Language@Internet* 5.
- Markham, A. N., & Baym, N. K. (2009). *Internet inquiry: conversations about method*. Los Angeles: Sage.

- Markman, K. M. (2010). Conversational coherence in small group chat. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 539-564). Berlin & Boston: De Gruyter Mouton.
- Markman, K. M. (2005). To send or not to send: turn construction in computer-mediated chat. *Texas Linguistic Forum*, 48, 115–124.
- Markman, K. M., & Oshima, S. (2007). Pragmatic Play? Some Possible Functions of English Emoticons and Japanese Kaomoji in Computer-Mediated Discourse. Presented at the *Association of Internet Researchers (AoIR) Conference 8*. Vancouver, B.C.
- Markus, H. R., & Kitayama, S. (2010). Cultures and selves: a cycle of mutual constitution. *Perspectives on Psychological Science*, 5, 420-430.
- Marmariadou, S. S. A. (2000). *Pragmatic meaning and cognition*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Marvin, L.-E. (1995). Spoof, spam, lurk, and lag: the aesthetics of text-based virtual realities. *Journal of Computer-Mediated Communication*, 1(2).
- Marwick, A. E., & boyd, D. (2010). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, 13(1), 114–133.
- Massaro, D. W. (2002). Multimodal speech perception: A paradigm for speech science. In B. Granström, D. House, & I. Karlsson (Eds.), *Multimodality in language and speech systems* (pp. 73-92). Dordrecht: Springer Science+Business Media.
- Massey, D. (2005). *For space*. London: Sage.
- Massey, D. (1994). *Space, place, and gender*. Minneapolis: University of Minnesota Press.
- Massumi, B. (2002). *Parables for the Virtual: Movement, Affect, Sensation*. Durham: Duke University Press.
- Massumi, B. (1996). The autonomy of affect: In P. Patton (Ed.), *Deleuze: A Critical Reader*. Oxford: Blackwell.
- Matei, S. & Ball-Rokeach, S. J. (2002). Belonging in geographic, ethnic, and internet spaces. In B. Wellman & C. Haythornwaite, *The internet in everyday life* (pp. 404-427). Malden, MA & Oxford: Blackwell Publishing.
- Matsuda, P. K. (2002). Negotiation of identity and power in a Japanese online discourse community. *Computers and Composition*, 19(1), 39–55.
- Matsuda, P. K. (2001). Voice in Japanese written discourse: implications for second language writing. *Journal of Second Language Writing* 10(1): 35-53.

- Mazur, E., & Li, Y. (2014). Identity and self-presentation on social networking web sites: A comparison of online profiles of Chinese and American emerging adults. *Psychology of Popular Media Culture*. Online before print, August 18, 2014.
- McAndrew, F. T., & De Jonge, C. R. (2011). Electronic person perception: what do we infer about people from their email messages? *Social Psychology and Personality Science*, 2(4): 403-407.
- McCloskey, D. (1998). *The Rhetoric of Economics*. Second Edition. Madison: University of Wisconsin Press.
- McComisky, B. (2015). *Dialectical rhetoric*. Logan: University of Utah University Press.
- McEwan, B., & Zanolta, D. (2013). When online meets offline: A field investigation of modality switching. *Computers in Human Behavior* 29, 1565-1571.
- McGee, C. M. (1980). The "ideograph": A link between rhetoric and ideology. *Quarterly Journal of Speech* 66 (1), 1-16.
- McGee, M. C. (1975). In search of 'the people': A rhetorical alternative. *The Quarterly Journal of Speech* 61 (3), 235-249.
- McKenna, B. & Waddell, N. (2007). Media-ated political oratory following terrorist events: International political responses to the 2005 London bombing. *Journal of Language & Politics* 6 (3), 377-399.
- McKenna, K. Y. A., & Bargh, J. A. (2000). Plan 9 from cyberspace: The implications of the internet for personality and social psychology. *Personality & Social Psychology Review* 4(1), 57-75.
- McKenna, K. Y. A., Green, A. S., & Gleason, M. E. J. (2002). Relationship formation on the internet: What's the big attraction? *Journal of Social Issues* 58(1), 9-31.
- McKenzie, R. (2000). Audience involvement in the epideictic discourse of television talk shows. *Communication Quarterly* 48 (2), 190-203.
- McKerrow, R. (1989). Critical rhetoric: Theory and praxis. *Communication Monographs* 56 (2), 91-111.
- McLuhan, M. (1964). *Understanding media: The extensions of man*.
- McLuhan, M. (1962). *The Gutenberg galaxy: The making of typographic man*. Toronto: University of Toronto Press.
- McNeill, D. (2012). *How language began: Gesture and speech in human evolution*. Cambridge: Cambridge University Press.
- McNeill, D. (2005). *Gesture and Thought*. Chicago: University of Chicago Press.

- McNeill, D. (1992). *Hand and Mind: What Gestures Reveal about Thought*. Chicago: University of Chicago Press.
- McNeill, D., Cassell, J., & Levy, E. T. (1993). Abstract deixis. *Semiotica* 95 (1/2), 5-19.
- McNeill, D. & Pedelty, L. L. (1995). Right brain and gesture. In K. Emmorey & J. S. Reilly (eds), *Language, Gesture, and Space*, pp. 63-85. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Mead, G. H. (1934). *Mind, self & society: From the standpoint of a social behaviorist*. Chicago: University of Chicago Press.
- Medhurst, M. J. (2010). George W. Bush at Goree Island: American slavery and the rhetoric of redemption. *Quarterly Journal of Speech* 96 (3), 257-277.
- Medway, P. & Freedman, A. (Eds). (1994). *Genre and the new rhetoric*. London: Taylor & Francis.
- Meger, Z. (2012). What binds Bronislaw Malinowski to social networks? *EduAction*, 2 (4), 27-32 [Polish].
- Meister, I. G., Wilson, S. M., Beblieck, C., Wu, A. D., & Iacobani, M. (2007). The essential role of premotor cortex in speech perception. *Current Biology*, 17, 1692-1696.
- Menchik, D. A., & Tian, X. (2008). Putting social context into text: the semiotics of email interaction. *American Journal of Sociology*, 114(2): 332.
- Merleau-Ponty, M. (2002). *Phenomenology of perception*. C. Smith (Trans.). London & New York: Routledge.
- Meredith, J., & Stokoe, E. (2013). Repair: Comparing Facebook “chat” with spoken interaction. *Discourse & Communication*, 8(2), 181–207.
- Meyrowitz, J. (1985). *No Sense of Place: The Impact of Electronic Media on Social Behavior*. New York: Oxford University Press.
- MIG@NET EU FP7 Project (2012). Transnational digital networks: migration and gender. International reports for ‘intercultural conflict and dialogue’ and ‘religious practices’. Retrieved from: <http://www.mignetproject.eu/>
- Miller, A. B. (1974). Aristotle on habit (*ἔθος*) and character (*ἦθος*): Implications for the *Rhetoric*. *Speech Monographs* 41 (4), 309-316.
- Miller, C. R. (1994). Opportunity, opportunism, and progress: *Kairos* in the rhetoric of technology. *Argumentation* 8, 81-96.

- Miller, C. R., & Shepherd, D. (2004). Blogging as social action: a genre analysis of the weblog. In L. J. Gurak, et al (Eds.), *Into the blogosphere: rhetoric, community, and culture of weblogs*. Retrieved from: <http://blog.lib.umn.edu/blogosphere/>
- Miller, V. (2015). Phatic culture and the status quo: Reconsidering the purpose of social media activism. *Convergence*. Online before print, June 28, 2015. DOI: 10.1177/1354856515592512
- Miller, V. (2008). New media, networking, and phatic culture. *Convergence* 14 (4), 387-400.
- Minsky, M. (1985). *The Society of Mind*. New York: Simon & Schuster.
- Mischaud, E. (2007). *Twitter: Expressions of the whole self: An investigation into user appropriation of a web-based communications platform*. London School of Economics and Political Science. Doctoral Dissertation.
- Mix, K. S., Smith, L. B., & Gasser, M. (eds.). (2010). *The spatial foundations of language and cognition*. Oxford: Oxford University Press.
- Mondada, L. (2014). The local constitution of multimodal resources for social interaction. *Journal of Pragmatics*. doi: 10.1016/j.pragma.2014.04.004
- Moore, S. (2004). The doubling of place: Electronic media, time-space arrangements and social relationships. In N. Couldry & A. McCarthy (eds.), *Mediaspace: Place, scale and culture in a media age*, pp. 21-36. London & New York: Routledge.
- Morand, D. A. (2010). Politeness as a theoretical and empirical framework for studying relational communication in computer-mediated contexts. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 776-794). Hershey, PA & New York: Information Science Reference.
- Morely, D. (2000). *Home Territories: Media, Mobility and Identity*. London: Routledge.
- Morin, E. (1992). *Method: Towards a study of mankind, vol. 1: The nature of nature*. J. L. R. Belanger (Trans.). New York: Peter Lang.
- Morris, A. L. (2010). Native American stand-up comedy: Epideictic strategies in the contact zone. *Rhetoric Review* 30 (1), 37-53.
- Morse, M. (1998). *Virtualities: Television, Media Art and Cyberspace*. Bloomington: Indiana University Press.
- Mount, A. (2015). Character, impropriety, and success: A unified account of indexicals. *Mind & Language* 30 (1), 1-21.
- Murphy, J. M. (2003). "Our mission and our moment": George W. Bush and September 11th. *Rhetoric & Public Affairs* 6 (4), 607-632.

- Murphy, J. M. (1992). Epideictic and deliberative strategies in opposition to war: The paradox of honor and expediency. *Communication Studies* 43, 65-78.
- Murphy, J. M. (1990). "A time of shame and sorrow": Robert F. Kennedy and the American Jeremiad. *Quarterly Journal of Speech* 76 (4), 401-414.
- Murray, D. E. (1991a). The composing process for computer conversation. *Written Communication*, 8(1), 35-55.
- Murray, D. E. (1991b). *Conversation for Action: The Computer Terminal as Medium of Communication*. Amsterdam & Philadelphia: John Benjamins.
- Murray, D. E. (1988). The context of oral and written language: a framework for mode and medium switching. *Language and Society*, 17(3), 351-373.
- Murrel, S. (1983). Computer communication system design affects group decision making. In A. Janda (Ed.), *Human factors in computing systems. Proceedings of the CHI '83 Conference*, Boston, 12-15 December. Amsterdam: North-Holland.
- Naaman, M., Boase, J., & Lai, C. -H. (2010). Is it really about me? Message content in social awareness streams. Presented at *CSCW*, February 6-10, 2010, Savannah, GA.
- Nakamura, L. (2014). I WILL DO EVERYthing that I am asked: Scambaiting, digital show-place, and the racial violence of social media. *Journal of Visual Culture*, 13 (3), 257-274.
- Nakamura, L. (2010). Race and identity in digital media. In J. Curran (Ed.), *Media and society*. New York: Bloomsbury Academic.
- Nakamura, L. (2007). *Digitizing race: Visual cultures of the internet*. Minneapolis: University of Minnesota Press.
- Nakamura, L. & Chow-White, P. (2012). *Race after the internet*. New York: Routledge.
- Naquin, C. E., Kurtzberg, T. R., & Belkin, L. Y. (2010). The finer points of lying: e-mail versus pen and paper. *Journal of Applied Psychology*, 95(2), 387-394.
- Nash, J. E., & Nash, A. (1982). Typing on the phone: how the deaf accomplish TTY conversations. *Sign Language Studies*, (36), 193-216.
- Nastri, J., Peña, J., & Hancock, J. T. (2006). The Construction of Away Messages: A Speech Act Analysis. *Journal of Computer-Mediated Communication*, 11(4), 1025-1045.
- Neal, D. T., & Chartrand, T. L. (2011). Embodied emotion perception: amplifying and dampening facial feedback modulates emotion perception accuracy. *Social Psychological and Personality Science*, 2, 673-678.

- Nguyen, N. -M. (2015). I tweet like a white person tbh! #whitewashed: examining the language of internalized racism and the policing of ethnic identity on Twitter. *Social Semiotics*. Published online before print 30 December 2015. DOI: 10.1080/10350330.2015.1126046
- Neal, D. T., & Chartrand, T. L. (2011). Embodied emotion perception: amplifying and dampening facial feedback modulates emotion perception accuracy. *Social Psychological and Personality Science*, 2, 673-678.
- Neff, G., Jordan, T., & McVeigh-Schultz, J. (2012). Affordances, technical agency, and the politics of technologies of cultural production. *Journal of Broadcasting & Electronic Media* 56 (2), 299-313.
- Neo, R. L., & Skoric, M. M. (2009). Problematic instant messaging use. *Journal of Computer-Mediated Communication*, 14(3), 627-657.
- Newitz, A. (1995). Surplus identity on-line. *Bad Subjects*, (18). Retrieved from: <http://bad.eserver.org/issues/1995/18/newitz.html>
- Newon, L. (2013). Multimodal creativity and expertise in the digital ecology of a World of Warcraft guild. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: language in the new media* (pp. 131-153). Oxford: Oxford University Press.
- Nishida, K. (1958). *Intelligibility and the philosophy of nothingness*. Tokyo: Maruzen Co. Ltd.
- Nishimura, Y. (2008). Japanese BBS websites as online communities: (im)politeness perspectives. *Language@Internet*, 5.
- Nishimura, Y. (2002). Linguistic innovations and interactional features of casual online communication in Japanese. *Journal of Computer-Mediated Communication*, 9(1).
- Noble, S. U., & Tynes, B. M. (2016). *The intersectional internet: Race, sex, class and culture online*. New York: Peter Lang Publishers.
- Noland, C. (2009). *Agency & embodiment: Performing gestures/producing culture*. Cambridge, MA: Harvard University Press.
- Nord, C. (2008). Persuading by addressing: A functional approach to speech-act comparison. *Southern African Linguistics and Applied Language Studies* 26 (2), 283-293.
- Nord, C. (2007). The phatic function in translation: Metacommunication as a case in point. *Belgian Journal of Linguistics* 21 (1), 171-184.
- Norris, S. (2011). *Identity in (inter)action: Introducing multimodal (inter)action analysis*. Göttingen: Mouton de Gruyter.
- Norris, S. (2004). *Analyzing multimodal interaction: A methodological framework*. New York & London: Routledge.

- Norris, S., & Jones, R. H. (Eds.). (2005). *Discourse in action*. London & New York: Routledge.
- Nussbaum, N. C. (1994). *The therapy of desire: Theory and practice in Hellenistic ethics*. Princeton: Princeton University Press.
- O'Gorman, N. (2005). Aristotle's *phantasia* in the *Rhetoric*: *Lexis*, appearance, and the epideictic function of discourse. *Philosophy & Rhetoric* 38 (1), 16-40.
- O'Halloran, K. L. (Ed.). (2004). *Multimodal discourse analysis: Systemic functional perspectives*. London & New York: Continuum.
- O'Neill, B. (2013). Mirror, mirror on the screen, what does all this ASCII mean?: a pilot study of spontaneous facial mirroring of emoticons. *The Arbutus Review*, 4(1). Retrieved from: <http://journals.uvic.ca/index.php/arbutus/article/view/12681>
- O'Neill, B. (2010). LOL! (laughing online): An investigation of non-verbal communication in computer-mediated exchanges. *Working Papers of the Linguistics Circle*, 20 (1), 117-123.
- O'Reilly, T. (2007). What is web 2.0?: design patterns and business models for the next generation of software. *International Journal of Digital Economics*, 65, 17-37.
- O'Sullivan, P. B., Hunt, S. K., & Lippert, L. R. (2004). Mediated immediacy: a language of affiliation in a technological age. *Journal of Language and Social Psychology*, 23(4), 464-490.
- Oakley, T. (2011). Attention and rhetoric: Prolepsis and the problem of meaning. In C. Meyer & F. Girke (eds.), *The rhetorical emergence of culture*, pp. 282-303. New York & Oxford: Berghahn Books.
- Oberlander, J. & Gill, A. J. (2006). Language with character: a stratified corpus comparison of individual differences in e-mail communication. *Discourse Processes*, 42(3), 239-270.
- Ochs, E. (1996). Linguistic resources for socializing humanity. In J. J. Gumperz & S. C. Levinson, *Rethinking linguistic relativity*, pp. 407-437. Cambridge: Cambridge University Press.
- Öhman, A. (2009). Of snakes and faces: An evolutionary perspective on the psychology of fear. *Scandinavian Journal of Psychology*, 50, 543-552.
- Okada, K., & Hickok, G. (2006). Left posterior auditory-related cortices participate both in speech perception and speech production: neural overlap revealed by fMRI. *Brain and Language* 98, 112-117.
- Oksman, V., & Turtiainen, J. (2004). Mobile Communication as a Social Stage: Meanings of Mobile Communication in Everyday Life among Teenagers in Finland. *New Media & Society*, 6(3), 319-339.

- Okuyama, Y. (2013). A case study of US deaf teens' text messaging: Their innovations and adoption of textisms. *New Media & Society*, 15(8), 1224–1240.
- Olateju, M., & Adeleke, O. (2010). Inferences in discourse comprehension of e-mails. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 424-436). Hershey, PA & New York: Information Science Reference.
- Olson, K.M. (2013). An epideictic dimension of symbolic violence in Disney's *Beauty and the Beast*: Inter-generational lessons in romanticizing and tolerating intimate partner violence. *Quarterly Journal of Speech* 99 (4), 448-480.
- Olúbòdé-Sàwè, F. O. (2010). Digital communication in indigenous languages. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp.564-577). Hershey, PA & New York: Information Science Reference.
- Onadeko, T. (2010). Gender consciousness in computer-mediated discourse in Nigeria. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 205-217). Hershey, PA & New York: Information Science Reference.
- Ong, K. K. W. (2011). Disagreement, confusion, disapproval, turn elicitation and floor-holding: actions as accomplished by ellipsis marks-only turns and blank turns in quasisynchronous chats. *Discourse Studies*, 13(2): 211-234.
- Ong, W. J. (2002). *Orality and Literacy: The Technologizing of the Word*. London: Routledge.
- Oravec, C. (1961). "Observation" in Aristotle's theory of epideictic. *Philosophy & Rhetoric* 9 (3), 162-174.
- Oulasvirta, A., Lehtonen, E., Kurvinen, E., & Raento, M. (2010). Making the ordinary visible in microblogs. *Pers Ubiquit Comput*, 14, 237-249.
- Palczewski, C. H. (2005). When times collide: Ward Churchill's use of an epideictic moment to ground forensic argument. *Argumentation & Advocacy* 41 (3), 123-138.
- Palfreyman, D., & al Kalil, M. (2003). "A funky language for teenzz to use": Representing Gulf Arabic in instant messaging. *Journal of Computer Mediated Communication* 9(1). doi 10.1111/j.1083-6101.2003.tb00355x
- Palomares, N. A., & Lee, E.-J. (2010). Virtual gender identity: the linguistic assimilation to gendered avatars in computer-mediated communication. *Journal of Language and Social Psychology*, 29(1), 5-23.
- Pan, F. L. (2015). The newspaper as an epideictic meeting point: On the epideictic nature of the newspaper argumentation. *Argumentation* 29 (3), 285-303.

- Paolillo, J. C., & Zelenkauskaitė, A. (2013). Real-time chat. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 109-133). Berlin & Boston: De Gruyter Mouton.
- Papacharissi, Z. (2010). *A Private Sphere: Democracy in a Digital Age*. Cambridge: Polity.
- Papacharissi, Z. (2004). Democracy online: Civility, politeness, and the democratic potential of online political discussion groups. *New Media & Society* 6(2), 259-283.
- Pariser, E. (2012). *The filter bubble: What the internet is hiding from you*. New York: Penguin.
- Park, H., & Cameron, G. T. (2014). Keeping it real: Exploring the roles of conversational human voice and source credibility in crisis communication via blogs. *Journalism & Mass Communication Quarterly*, 91(3): 487-507.
- Park, J. (2007). Interpersonal and affective communication in synchronous online discourse. *Library Quarterly* 77(2), 133-155.
- Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *CyberPsychology & Behavior*, 12(6), 729-733.
- Park, R. E. (1927). Human nature & collective behavior. *American Journal of Sociology* 32 (5), 733-741.
- Park, S. (2013). Always on and always with mobile tablet devices: A qualitative study on how young adults negotiate with continuous connected presence. *Bulletin of Science, Technology, & Society* 33(5-6), 182-190.
- Pavioir-Smith, M. (2010). 'Masculine normal guy here': lonely hearts and 'normal' gays in cyberspace. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 164-179). Hershey, PA & New York: Information Science Reference.
- Payal, A. (2016). *A leisure commons: A spatial history of web 2.0*. New York: Routledge.
- Peatman, J. (2013). *The long shadow of Lincoln's Gettysburg Address*. Carbondale: Southern Illinois University Press.
- Pennycook, A. & Otsuji, E. (2015). *Metrolingualism: Language in the city*. London & New York: Routledge.
- Perelman, C., & Olbrechts-Tyteca, L. (1969). *The New Rhetoric: A Treatise on Argumentation*. J. Wilkinson & P. Weaver (Trans.). Notre Dame: University of Notre Dame Press.
- Perkins, R. D. (1992). *Deixis, grammar, and culture*. Amsterdam & Philadelphia: John Benjamins Publishing Company.

- Pernot, L. (2015). *Epideictic rhetoric: Questioning the stakes of ancient praise*. Austin: University of Texas Press.
- Pernot, L. (1993). *La rhétique de éloge dans le monde gréco-romain*. Paris: Institut d'études augustiniennes.
- Pertierra, R. (2005) Mobile phones, identity, and discursive intimacy. *Human Technology* 1(1), 23-44.
- Peters, J. D. (1999). *Speaking into the Air: A history of the idea of communication*. Chicago: University of Chicago Press.
- Peterson, E. E. (2011). How conversational are weblogs? *Language@Internet*, 8(8).
- Petre, E. A. (2007). Understanding epideictic purpose as invitational rhetoric in women's political convention speeches. *Kaleidoscope* 6, 21-37.
- Petrovčič, A. & Petrič, G. (2014). Differences in intrapersonal and interactional empowerment between lurkers and posters in health-related online support communities. *Computers in Human Behavior*, 34, 39-48.
- Peuronen, S. (2011). "Ride hard, live forever": translocal identities in an online community of extreme sports Christians. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: language in the new media* (pp. 154-176). Oxford: Oxford University Press.
- Pfeil, U., & Zaphiris, P. (2007). Patterns of empathy in online communication. In *Proceedings of the SIGCHI conference on Human factors in computing systems - CHI '07* (pp. 919-928). New York, New York, USA: ACM Press.
- Pickering, A. (1995). *The Mangle of Practice: Time, Agency, and Science*. Chicago: University of Chicago Press.
- Pigg, S., Grabill, J. T., Brunk-Chavez, B., Moore, J. L., Rosinski, P., & Curran, P. G. (2013). Ubiquitous Writing, Technologies, and the Social Practice of Literacies of Coordination. *Written Communication*, 31(1), 91-117.
- Pirzadeh, A., & Pfaff, M. S. (2012). Emotion Expression under Stress in Instant Messaging. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 56(1), 493-497.
- Planalp, S. (1999). *Communicating Emotion: Social, Moral and Cultural Processes*. Cambridge: Cambridge University Press.
- Plester, B., & Wood, C. (2009). Exploring relationships between traditional and new media literacies: British preteen texters at school. *Journal of Computer-Mediated Communication*, 14(4), 1108-1129.

- Plester, B., Wood, C., & Bell, V. (2008). Txt msg n school literacy: does texting and knowledge of text abbreviations adversely affect children's literacy attainment? *Literacy*, 42(3), 137-144.
- Postmes, T., Spears, R., & Lea, M. (2000). The formation of group norms in computer-mediated communication. *Human Communication Research*, 26(3), 341-371.
- Postmes, T., Spears, R., Sakhel, K., & de Groot, D. (2001). Social influence in computer-mediated communication: the effects of anonymity on group behavior. *Personality & Social Psychology Bulletin*, 27(10): 1243-1254.
- Poulakos, J. (1983). Toward a sophistic definition of rhetoric. *Philosophy & Rhetoric*, 16 (1), 35-48.
- Poyatos, F. (2002a). *Nonverbal communication across disciplines. Volume I: Culture, sensory interaction, speech, conversation*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Poyatos, F. (2002b). *Nonverbal communication across disciplines. Volume II: Paralanguage, kinesics, silence, personal and environmental interaction*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Poyatos, F. (2002c). *Nonverbal communication across disciplines. Volume III: Narrative, literature, theater, cinema, translation*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Prasch, A. M. (2016). Toward a rhetorical theory of deixis. *Quarterly Journal of Speech*, published online before print, March 14, 2016. DOI: 10.1080/00335630.2016.1156145
- Prasch, A. M. (2015). Reagan at Pointe du Hoc: Deictic epideictic and the persuasive power of "bringing before the eyes." *Rhetoric & Public Affairs* 18 (2), 247-276.
- Pratt, J. (2012). The epideictic *agōn* and Aristotle's elusive third genre. *American Journal of Philology* 133 (2), 177-208.
- Pred, A. (1983). Structuration and place: On the becoming of sense of place and structure of feeling. *Journal of the Theory of Social Behavior* 13, 45-68.
- Prelli, L. J. (Ed.) (2006). *Rhetorics of display*. Columbia, SC: University of South Carolina Press.
- Provine, R. R., Spencer, R. J., & Mandell, D. L. (2007). Emotional Expression Online: Emoticons Punctuate Website Text Messages. *Journal of Language and Social Psychology*, 26(3), 299-307.
- Ptaszynski, M., Rzepka, R., Maciejewski, J., Araki, K., Dybala, P., & Momuchi, Y. (2012). The science of emoticons: research framework and state of the art in analysis of kaomoji-type emoticons. In *Speech, Image, and Language Processing for Human Computer*

- Interaction, Multimodal Advancements* (pp. 234–260). Hershey, PA: Information Science Reference.
- Puce, A., & Perrett, D. (2003). Electrophysiology and brain imaging of biological motion. In J. T. Cacioppo & G. G. Bernston (Eds.), *Social Neuroscience*, pp. 115-129. New York: Psychology Press.
- Pulos, A. (2013). Confronting heteronormativity in online games: a critical discourse analysis of LGBTQ sexuality in *World of Warcraft*. *Games & Culture*, 8(2), 77-97.
- Quan-Haase, A. (2009). Text-based conversations over instant messaging: linguistic changes and young people's sociability. In C. Rowe & E. L. Wyss (Eds.), *Language and New Media: Linguistic, Cultural, and Technological Evolutions* (pp. 33–54). Cresskill, NJ: Hampton Press, Inc.
- Quan-Haase, A., Wellman, B., Witte, J. C., & Hampton, K. N. (2002). Capitalizing on the net: social contact, civic engagement, and sense of community. In B. Wellman & C. Haythornwaite (Eds.), *The internet in everyday life* (pp. 291-324). Oxford: Blackwell Publishing.
- Quan-Haase, A. & Young, A. L. (2010). Uses and gratifications of social media: a comparison of Facebook and instant messaging. *Bulletin of Science, Technology and Society*, 30(5), 350-361.
- Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: applying the uses and gratifications theory to exploring friend-networking sites. *CyberPsychology & Behavior*, 11(2), 168-174.
- Rafi, M. S. (2010). The sociolinguistics of SMS ways to identify gender boundaries. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 104-111). Hershey, PA & New York: Information Science Reference.
- Rains, S. A., & Young, A. M. (2006). A Sign of the Times: An Analysis of Organizational Members' Email Signatures. *Journal of Computer-Mediated Communication*, 11(4), 1046–1061.
- Rains, S. A., Tumlin, G. R., & Knapp, M. L. (2009). Electronic bumper stickers: the content and interpersonal functions of messages attached to e-mail signatures. *Discourse Studies*, 11(1), 105–120.
- Rajah-Carrim, A. (2009). Use and standardization of Mauritian Creole in electronically mediated communication. *Journal of Computer-Mediated Communication*, 14(3), 484-508.
- Ramachandran, V. S., & Blakeslee, S. (1998). *Phantoms in the Brain: Probing the Mysteries of the Human Mind*. New York: Quill.

- Ramirez, A. J., Dimmick, J., Feaster, J., & Lin, S.-F. (2008). Revisiting interpersonal media competition: the gratification niches of instant messaging, e-Mail, and the telephone. *Communication Research*, 35(4), 529–547.
- Ramirez, A., Walther, J. B., Burgoon, J. K., & Sunnafrank, M. (2002). Information-seeking strategies, uncertainty and computer-mediated communication: toward a conceptual model. *Human Communication Research*, 28(2): 213-228.
- Rampley, M. (ed). (2005). *Exploring visual culture: Definitions, concepts, contexts*. Edinburgh: University of Edinburgh Press.
- Ramsey, S. (2013). Cultural persuasion in lexicographical space: Dictionaries as a site of nineteenth-century epideictic rhetoric. *Rhetoric Review* 32 (1), 64-80.
- Rawlins, J. D. (2014). Mythologizing change: Examining rhetorical myth as a strategic change management discourse. *Business and Professional Communication Quarterly* 77 (4), 453-472.
- Reddy, M. J. (1979). The conduit metaphor: A case of frame conflict in our language about language. In A. Ortony (Ed.), *Metaphor and thought*, pp. 285-324. Cambridge: Cambridge University Press.
- Redlawsk, D. P., Civettini, A. J., & Emmerson, K. M. (2010). The affective tipping point: Do motivated reasoners ever “Get it”? *Political Psychology*, 31, 563-593.
- Regenbogen, C., Schneider, D. A., Gur, R. E., Schneider, F., Habel, U., & Kellerman, T. (2012). Multimodal human communication – targeting facial expressions, speech content and prosody. *NeuroImage*, 60, 2346-2356.
- Reinke, K., & Chamorro-Premuzic, T. (2014). When email gets out of control: Understanding the relationship between personality and email overload and their impact on burnout and work engagement. *Computers in Human Behavior*.
<http://dx.doi.org/10.1016/j.chb.2014.03.075>
- Relph, E. (1976). *Place and placelessness*. London: Pion.
- Rettberg, J. W. (2008). *Blogging*. Cambridge: Polity Press.
- Reynolds, N. (1993). Ethos as location: New sites for understanding discursive authority. *Rhetoric Review* 11 (2), 325-338.
- Rezabek, L. L., & Cochenour, J. J. (1998). Visual cues in computer-mediated communication: supplementing text with emoticons. *Journal of Visual Literacy*, 18(2), 201–215.
- Rheingold, H. (2000/1993). *The virtual community: homesteading on the electronic frontier*. Revised edition. Cambridge & London: MIT Press.

- Rhodes, R. (1994). Aural images. In L. Hinton, J. Nichols, & J. J. Ohala (Eds.), *Sound symbolism*, pp. 47-56. Ottawa: Carleton University Press.
- Rhodes, R. A., & Lawler, J. M. (1981). Athematic metaphors. In R. Hendrick, C. Masek, & M. F. Miller (Eds.), *Papers from the 17th regional meeting of the Chicago Linguistic Society*, pp. 318-342.
- Rice, J. (2012). *Distant Publics*. Pittsburgh: University of Pittsburgh Press.
- Rice, R. E. (1984). *The new media: communication, research, and technology*. Beverly Hills, London, New Delhi: Sage Publications.
- Rice, R. E., & Case, D. (1983). Electronic message systems in the university: a description of use and utility. *Journal of Communication*, 33, 131-154.
- Rice, R. E., & Love, G. (1987). Electronic emotion: socioemotional content in a computer-mediated communication network. *Communication Research*, 14(1), 85-108.
- Richards, C. K. (2009). Inventing Sacagawea: Public women and the transformative potential of epideictic rhetoric. *Western Journal of Communication* 73 (1), 1-22.
- Rickert, T. (2013). *Ambient rhetoric: The attunements of rhetorical being*. Pittsburgh: University of Pittsburgh Press.
- Ridley, M. (1999). *Genome: The autobiography of a species in 23 chapters*. New York: Harper Collins.
- Rimé, B., Corsini, S., & Herbette, G. (2002). Emotion, verbal expression, and the social sharing of emotion. In S. R. Fussell (Ed.), *The Verbal Communication of Emotions: Interdisciplinary Perspectives* (pp. 185-208). Mahwah, NJ: Lawrence Erlbaum Associates.
- Riordan, M. A., & Kreuz, R. J. (2010). Cues in computer-mediated communication: A corpus analysis. *Computers in Human Behavior*, 26(6), 1806-1817.
- Riordan, M. A., Markman, K. M., & Stewart, C. O. (2012). Communication accommodation in instant messaging: an examination of temporal convergence. *Journal of Language and Social Psychology*, 32(1), 84-95.
- Ritivoi, A. D. (2006). *Paul Ricouer: Tradition and innovation in rhetorical theory*. Albany: State University of New York Press.
- Riva, G. (2002). The sociocognitive psychology of computer-mediated communication: the present and future of technology-based interactions. *CyberPsychology & Behavior*, 5(6): 581-598.

- Rivera, K., Cooke, N. J., & Bauhs, J. A. (1996). The effects of emotional icons on remote communication. *CHI '96 Conference Companion* (pp. 99-100). Vancouver, BC: American Academy of Management.
- Rivière, C. A. & Licoppe, C. (2005). From voice to text: continuity and change I the use of mobile phones in France and Japan. In Harper, R., Palen, L., & Taylor, A. (Eds.). *The inside text: social, cultural, and design perspectives on SMS* (pp. 103-126). Dortrecht: Springer.
- Roberts, K. G. (2004). Liminality, authority, and value: Reported speech in epideictic rhetoric. *Communication Theory* 14 (3), 264-284.
- Robins, R. H. (1976). *A short history of linguistics*. London: Longman Group Limited.
- Rogers, E. M. (1986). *Communication technology: the new media*. New York: The Free Press.
- Rogers, P., & Lea, M. (2005). Social presence in distributed group environments: The role of social identity. *Behaviour & Information Technology*, 24(2), 151-158.
- Rolfe, L. H. (1989). Gesture and deixis. In J. Wind, E. G. Pulleybank, E. De Grolier, & B. H. Bickjjan (eds.), *Studies in language origins, vol. 1*, pp. 25-31. Amsterdam & Philadephia: John Benjamins Publishing Company.
- Rollins, B. (2005). The ethics of epideictic rhetoric: Addressing the problem of presence through Derrida's funeral orations. *Rhetoric Society Quarterly* 35 (1), 5-23.
- Rosenfeld, H. (2014). Could emojis ever be a language? Vice.
<http://motherboard.vice.com/read/could-emoji-ever-be-a-language>. Accessed 8 February 2015.
- Rosenfield, I. (1988). *The invention of memory: A new view of the brain*. New York: Basic Books.
- Rowe, C. (2011). Whatchanade? Rapid language change in a private email sibling code. *Language@Internet*, 8(6).
- Rowe, C. (2010). Status and email construction in three Hong Kong workplaces. In R. Taiwo (Ed.), *Handbook of research on discourse behavior and digital communication* (pp. 18-38). Hershey, PA & New York: Information Science Reference.
- Rowe, C. & Wyss, E.L. (Eds.). (2009). *Language and new media: linguistic, cultural, and technological evolutions*. Cresskill, NJ: Hampton Press.
- Ruthrof, H. (2015). Implicit deixis. *Language Sciences* 47, 107-116.
- Ruthrof, H. (2000). *The body in language*. London & New York: Cassell.

- Ruthrof, H. (1997). *Semantics and the body: Meaning from Frege to the postmodern*. Toronto: University of Toronto Press.
- Rutten, E. (2014). (Russian writer-bloggers: digital perfection and the aesthetics of imperfection. *Journal of Computer-Mediated Communication* 19(4), 744-762.
- Ryan, M. -L. (2001). *Narrative as virtual reality: Immersion and interactivity in literature and electronic media*. Baltimore & London: Johns Hopkins Press.
- Sack, R. D. (1980). *Conceptions of space in social thought: A geographic perspective*. Minneapolis: University of Minnesota Press.
- Sakai, N. (2013). The role of sentence closing as an emotional marker: A case of Japanese mobile phone e-mail. *Discourse, Context & Media*, 2(3), 149–155.
- Sanderson, D. W. (1993). *Smileys*. Sebastopol: O'Reilly Media.
- Sarjanoja, A. -H., Isomursu, M. & Häkkinä, J. (2013). Small talk with Facebook: Phatic communication in social media. In *Proceedings of International Conference on Making Sense of Converging Media*. New York: ACM. DOI=10.1145/2523429.2523449
- Sanjay S. (2013) Black Twitter?: Racial Hashtags, Networks and Contagion. *New formations: a journal of culture/theory/politics*, 78(1), 46-64.
- Sassenberg, K., & Boos, M. (2003). Attitude change in computer-mediated communication: effects of anonymity and category norms. *Group Processes & Intergroup Relations*, 6(4), 405–422.
- Sauter, T. (2014). ‘What’s on your mind’? Writing on Facebook as a tool for self-formation. *New Media & Society*, 16(5), 823-839.
- Scannell, P. (1996). *Radio, Television, and Modern Life: A Phenomenological Approach*. Oxford: Blackwell.
- Schacter, D. L. (2001). *The seven sins of memory: How the mind forgets and remembers*. Boston: Houghton Mifflin.
- Schandorf, M. (2013). Mediated gesture: Paralinguistic communication and phatic text. *Convergence*, 19 (3), 319-344.
- Schandorf, M. (2012). No hay espacio: significado y corporalización en entornos mediados. In J. C. Arias, et. al. (eds.). *Codificar/Decodificar: Prácticas, espacios y temporalidades del audiovisual en internet* (pp. 217-246). Bogota: Editorial Pontificia Universidad Javeriana.
- Schneider, K. P. (1987). Topic selection in phatic communication. *Multilingua* 6 (3), 247-256.
- Schroeder, R., & Ling, R. (2014). Durkheim and Weber on the social implications of new information and communication technologies. *New Media & Society*, 16(5), 789-805.

- Schutz, A. (1967). *The phenomenology of the social world*. G. Walsh & F. Lehnert (Trans.). Evanston: Northwestern University Press.
- Schwämmlein, E., & Wodzicki, K. (2012). What to tell about me? Self-presentation in online communities. *Journal of Computer-Mediated Communication*, 17(4), 387-407.
- Schwarz, O. (2011). Who moved my conversation? Instant messaging, intertextuality and new regimes of intimacy and truth. *Media, Culture & Society*, 33(1), 71-87.
- Schwartz, R., & Halegoua, G. R. (2014). The spatial self: location-based identity performance on social media. *New Media & Society*. Published online before print 9 April, 2014.
- Schwartzberg, L. (2014). The oral history of the poop emoji (or, how Google brought poop to America). Fast Company. <http://www.fastcompany.com/3037803/the-oral-history-of-the-poop-emoji-or-how-google-brought-poop-to-america>. Accessed 8 February 2015.
- Scollon, R. (2001). *Mediated discourse: the nexus of practice*. London & New York: Routledge.
- Scollon, R., & Wong Scollon, S. (2009). Multimodality and language: a retrospective and prospective view. In C. Jewitt (Ed.), *Routledge handbook of multimodal analysis* (pp. 170-180). London & New York: Routledge.
- Scollon, R., & Wong Scollon, S. (2004). *Nexus analysis: discourse and the emerging internet*. London & New York: Routledge.
- Scollon, R., & Wong Scollon, S. (2003). *Discourses in place: language in the material world*. London & New York: Routledge.
- Scott, K. (2015). The pragmatics of hashtags: Inference and conversational style on Twitter. *Journal of Pragmatics*, 81, 8-20.
- Selfe, C. L., & Meyer, P. R. (1991). Testing claims for on-line conferences. *Written Communication*, 8(2), 163-192.
- Senft, G. (2007). Bronislaw Malinowski and linguistic pragmatics. *Lodz Papers in Pragmatics* 3, 76-96.
- Senft, G. (1995). Phatic communion. In J. Verschueren, J. -O. Ostman, & J. Blommaert (Eds.), *Handbook of pragmatics 1995*, pp. 1-10. Amsterdam: John Benjamins.
- Severinson-Eklundh, K. (2010). To Quote or Not to Quote: Setting the Context for Computer-Mediated Dialogues. *Language@Internet*, 7.
- Shalom, G. J., Israeli, H., Markovitsky, O., & Lipsitz, J. D. (2015). Social anxiety and physiological arousal during computer-mediated vs. face to face communication. *Computers in Human Behavior* 44: 202-208.

- Sharma, B. K. (2012). Beyond social networking: performing global Englishes in Facebook by college youth in Nepal. *Journal of Sociolinguistics*, 16(4), 483-509.
- Sharma, S. (2013). Black Twitter?: Racial hashtags, networks and contagion. *New Formations*, 78(2), 46-64.
- Sheard, C. M. (1996). The public value of epideictic rhetoric. *College English* 58 (7), 765-794.
- Sheller, M. (2004). Mobile publics: beyond the network perspective. *Environment and Planning D* 22, 39-52.
- Shen, K. N., & Khalifa, M. (2008). Exploring multidimensional conceptualization of social presence in the context of online communities. *International Journal of Human-Computer Interaction* 24, 722-748.
- Sherblom, J. (1988). Direction, function, and signature in electronic mail. *Journal of Business Communication*, 25(4), 39-55.
- Sherratt, S., Sher, W., Williams, A., & Gameson, R. (2010). Communication in construction design teams. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 218-233). Hershey, PA & New York: Information Science Reference.
- Short, J., Williams, E., & Christie, B. (1976). *The social psychology of tele-communications*. London: Wiley.
- Shotter, J. (2013). Agentive spaces, the “background”, and other not well articulated influences in shaping our lives. *Journal for the Theory of Social Behaviour*, 43 (2), 133-154.
- Shotter, J. (2012). Gergen, confluence, and his turbulent relational ontology: The constitution of our forms of life within ceaseless, unrepeatable, intermingling movements. *Psychological Studies*, 57 (2), 134-141.
- Shotter, J. (2011). The dance of rhetoric: Dialogical selves and spontaneously responsive expressions. In C. Meyer & F. Girke, *The rhetorical emergence of culture*, pp. 35-51. New York: Berghahn Books.
- Shotter, J. (2006). Creating real presences: Displays in liminal worlds. In L. J. Prelli (ed.), *Rhetorics of display*, pp. 273-289. Columbia: University of South Carolina Press.
- Shotter, J. (1997). Talk of saying, showing, gesturing, and feeling in Wittgenstein and Vygotsky. *Communication Review*, 1 (4), 471-495.
- Shotter, J. (1993). *Conversational realities: Constructing life through language*. London: Sage.
- Shotter, J. (1984). *Social accountability and selfhood*. Oxford & New York: Blackwell.

- Shotter, J. (1983). "Duality of structure" and "intentionality" in an ecological psychology. *Journal for the Theory of Social Behavior*, 13, 19-43.
- Shotter, J. (1980). Action, joint action, and intentionality. In M. Brenner (ed.), *The structure of action*, pp. 28-65. Oxford: Basil Blackwell.
- Shotter, J. (1975). *Images of man in psychological research*. London: Methuen
- Siampou, F., Komis, V., & Tselios, N. (2014). Online versus face-to-face collaboration in the context of a computer-supported modeling class. *Computers in Human Behavior*. dx.doi.org/10.1016/j.chb.2014.04.032
- Siebenhaar, B. (2008). Quantitative approaches to linguistic variation in IRC: implications for qualitative research. *Language@Internet*, 5.
- Siles, I. (2012). Web technologies of the self: the arising of the "blogger" identity. *Journal of Computer-Mediated Communication*, 17(4), 408-421.
- Silva, C. (2010). Chat discourse. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 266-280). Hershey, PA & New York: Information Science Reference.
- Simpson, J. (2013). Conversational floor in computer-mediated discourse. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 515-538). Berlin & Boston: De Gruyter Mouton.
- Skovholt, K., Grønning, A., & Kankaanranta, A. (2014). The Communicative Functions of Emoticons in Workplace E-Mails: :-). *Journal of Computer-Mediated Communication*. Published online January 10. 10.1111/jcc4.12063
- Slack, J. D. (2012). Beyond transmission, modes, and media. In J. Packer & S. B. Crofts Wiley, *Communication matters: Materialist approaches to media, mobility, and networks*, pp. 143-158. London & New York: Routledge.
- Slavičková, T. (2013). The rhetoric of remembrance: Presidential Memorial Day speeches. *Discourse & Society* 24 (3), 361-379.
- Smith, A. (2016, May 12). Jon Stewart: Here's why the Democrats are partly to blame for Trump. *Business Insider*. Accessed May 14, 2016 from: <http://www.businessinsider.com/jon-stewart-democrats-donald-trump-2016-5>
- Smith, J. E. (1969). Time, times, and the 'right time': *Chronos* and *kairos*. *Monist*, 53 (1), 1-13.
- Smith, R. & Trimbur, J. (2003). Rhetorics of unity and disunity: The Worcester firefighters' memorial service. *Rhetoric Society Quarterly* 33 (4), 7-24.
- Snowdon, D. N., Churchill, E. F., & Frécon, E. (eds.). (2004). *Inhabited information spaces: Living with your data*. London: Springer-Verlag Limited.

- Soffer, O. (2012). Liquid language? On the personalization of discourse in the digital era. *New Media & Society*, 14(7), 1092–1110.
- Sosik, V. S., & Barazovz, N. N. (2014). Relational maintenance on social network sites: How Facebook communication predicts relational escalation. *Computers in Human Behavior* 35, 124-131.
- Sotillo, S. M. (2010). SMS texting practices and communicative intention. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 252-265). Hershey, PA & New York: Information Science Reference.
- Spears, R., & Lea, M. (1994). Panacea or panopticon? The hidden power in computer-mediated communication. *Communication Research*, 21(4), 427–459.
- Spears, R., & Postmes, T. (2013). Group identity, social influence and collective action online: extensions and applications of the SIDE model. In S. S. Sundar (Ed.), *The Handbook of Psychology of Communication Technology*. Oxford: Blackwell.
- Spears, R., Lea, M., & Lee, S. (1990). De-individuation and group polarization in computer-mediated communication. *British Journal of Social Psychology*, 29(2), 121–134.
- Spears, R., Lea, M., Corneliussen, R. A., Postmes, T., & Haar, W. Ter. (2002). Computer-mediated communication as a channel for social resistance: The strategic side of SIDE. *Small Group Research*, 33(5), 555–574.
- Sperber, D., & Wilson, D. (1995). *Relevance: Communication and cognition*. Oxford: Blackwell.
- Spitzer, M. (1986). Writing style in computer conferences. *IEEE Transactions on Professional Communication*, PC-29(1), 19–22.
- Sproull, L., & Kiesler, S. (1986). Reducing social context cues: electronic mail in organizational communication. *Management Science*, 32(11), 1492–1512.
- Squires, L. (2012). Who's punctuating what? Sociolinguistic variation in instant messaging. In A. Jaffe, J. Andoutsopoulos, & M. Sebba (Eds.), *Orthography as social action: scripts, spelling, identity, and power* (pp. 289-323). Munchen, Germany: Mouton de Gruyter.
- Stahley, M. B. & Boyd, J. (2006). Winning is(n't) everything: The paradox of excellence and the challenge of organizational epideictic. *Journal of Applied Communication Research* 34 (4), 311-330.
- Stawarska, B. (2015). *Saussure's philosophy of language as phenomenology*. Oxford: Oxford University Press.
- Stawarska, B. (2009). *Between you and I: Dialogical phenomenology*. Athens, OH: Ohio University Press.

- Stawarska, B. (2008). 'You' and 'I', 'here' and 'now': Spatial and social situatedness in deixis. *International Journal of Philosophical Studies*, 16 (3), 399-418.
- Steele, C. K. (2014). Digital barber shops: The politics of African American oral culture in online blogs. Dissertation. University of Illinois, Department of Communication.
- Steinfeld, C.W. (1986). Computer-mediated communication in an organizational setting: Explaining task-related and socioemotional uses. In M.L. McLaughlin (Ed.), *Communication yearbook 9* (pp. 777-804). Newbury Park, CA: Sage.
- Stivers, T. (2008). Stance, alignment, and affiliation during storytelling: When nodding is a token of affiliation. *Research on Language and Social Interaction*, 41 (1), 31-57.
- Stojnic, U., Stone, M., & Lepore, E. Deixis (even without pointing). *Philosophical Perspectives* 27 (1), 502-525.
- Stommel, W. (2008). Conversation analysis and community of practice as approaches to studying online community. *Language@Internet*, 5.
- Stone, A. R. (1995). *The war of desire and technology at the close of the mechanical age*. Cambridge & London: MIT Press.
- Stone, A. R. (1992). Will the real body please stand up?: boundary stories about virtual cultures. In M. Benedikt (Ed.), *Cyberspace: first steps* (pp. 81-118). Cambridge & London: MIT Press.
- Storck, J., & Sproull, L. (1995). Through a glass darkly: what do people learn in videoconferences? *Human Communication Research*, 22(2), 197-219.
- Stormer, N. (2004). Articulation: A working paper on rhetoric and taxis. *Quarterly Journal of Speech*, 90 (3), 257-284.
- Strogatz, S. (2003). *Sync: How order emerges from chaos in the universe, nature, and daily life*. New York: Hachette.
- Stuckey, M. E. (2006). *Slipping the surly bonds: Reagan's Challenger address*. College Station: Texas A&M University Press.
- Stukenbrock, A. (2014). Pointing to empty space: *Deixis am phantasma* in face-to-face interaction. *Journal of Pragmatics* 74, 70-93.
- Su, H. Y. (2003). The multilingual and multi-orthographic Taiwan-based internet: creative uses of writing systems on college-affiliated BBSs. *Journal of Computer-Mediated Communication*, 9(1).
- Sugimoto, T., & Levin, J. A. (2000). Multiple literacies and multimedia: A comparison of Japanese and American uses of the internet. In G. E. Hawisher & C. L. Selfe (Eds.),

- Global literacies and the world wide web* (pp. 133–154). London and New York: Routledge.
- Sukyadi, D., Setyarini, S., & Junida, A. I. (2011). A semiotic analysis of cyber emoticons (a case study of Kaskus emoticons in the lounge forum at Kaskus-the largest Indonesian community). *K@ta*, 13(1), 37–50.
- Sullivan, D. L. (2003). “After ten years”: Dietrich Bonhoeffer’s epideictic exhortation to responsible action. *Journal of Communication and Religion* 26 (1), 28-50.
- Sullivan, D. L. (1994a). A closer look at education as epideictic rhetoric. *Rhetoric Society Quarterly* 23 (3), 70-89.
- Sullivan, D. L. (1994b). Exclusionary epideictic: *NOVA*’s narrative excommunication of Fleischmann and Pons. *Science, Technology & HumanValues* 19 (3), 283-306.
- Sullivan, D.L. (1993a). The epideictic character of rhetorical criticism. *Rhetoric Review* 11 (2), 339-349.
- Sullivan, DL (1993b). The ethos of the epideictic encounter. *Philosophy & Rhetoric* 26 (2), 113-133.
- Sullivan, DL. (1991). The epideictic rhetoric of science. *Journal of Business & Technical Communication* 5 (3), 229-245.
- Summers, K. (2001). Epideictic rhetoric in the “Englishwoman’s Review.” *Victorian Periodicals Review* 34 (3), 263-281.
- Suzuki, T, Wheatcroft, D., & Griesser, M. (2016). Experimental evidence for compositional syntax in bird calls. *Nature Communications*, 7, no. 10986. DOI: 10.1038/ncomms10986
- Tagg, C. (2016). Heteroglossia in text-messaging: Performing identity and negotiating relationships in digital space. *Journal of Sociolinguistics*, 20 (1), 59-85.
- Tagliamonte, S. A. (2016). So sick or so cool? The language of youth on the internet. *Language in Society*, 45 (1), 1-32.
- Tagliamonte, S. A., & Denis, D. (2008). Linguistic ruin? lol! Instant messaging and teen language. *American Speech*, 83(1), 3–34.
- Taiwo, R. (Ed.) (2010a). *The handbook of research on discourse behavior and digital communication: language structures and social interaction*. Hershey, PA & New York: Information Science Reference.
- Taiwo, R. (2010b). The dynamics of language missing in Nigerian digital communication. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 180-190). Hershey, PA & New York: Information Science Reference.

- Tallis, R. (2010). *Michelangelo's Finger*. New Haven: Yale University Press.
- Talmy, L. (2003). *Toward a cognitive semantics. Volume II: Typology and process in concept structuring*. Cambridge: MIT Press.
- Talmy, L. (2000). *Toward a cognitive semantics. Volume I: Concept structuring systems*. Cambridge: MIT Press.
- Talmy, L. (1983). How language structures space. In H. L. Pick & L. P. Acredolo (eds.), *Spatial orientation: Theory, research, and application*, pp. 225-282. New York & London: Plenum Press.
- Tan, M. (2015). Apple adds racially diverse emoji, and they come in five skin shades. *The Guardian*. <http://www.theguardian.com/technology/2015/feb/24/apple-adds-racially-diverse-emoji-and-they-come-in-five-skin-shades>. Accessed March 24, 2015
- Tannen, D. (2013). The medium is the metamessage: conversational style in new media interaction. In D. Tannen & A. M. Trester (Eds.), *Discourse 2.0: language and new media* (pp. 99-118). Washington DC: Georgetown University Press.
- Tannen, D., & Trester, A. M. (Eds.). (2013). *Discourse 2.0: language and new media*. Washington DC: Georgetown University Press.
- Tausczik, Y. R., & Pennebaker, J. W. (2009). The Psychological Meaning of Words: LIWC and Computerized Text Analysis Methods. *Journal of Language and Social Psychology*, 29(1), 24-54.
- Taylor, A. (2005). Phone talk. In R. Ling & Pederson, P. E. (Eds.), *Mobile communications: re-negotiation of the social sphere* (pp. 149-166). London: Springer-Verlag.
- Taylor, M. C. & Saarinen, E. 1994. *Imagologies: Media philosophy*. London & New York: Routledge.
- Tenbrink, T. (2007). *Space, time, and the use of language: An investigation of relationships*. Berlin & New York: Mouton de Gruyter.
- Thao, T. D. (1984). *Investigations into the origin of language and consciousness*. D. J. Herman & R. L. Armstrong (Trans.). Dordrecht: D. Reidel Publishing Company.
- Themistocelous, C. (2010). Online orthographies. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 318-334). Hershey, PA & New York: Information Science Reference.
- Therborn, G. (1980). *The ideology of power and the power of ideology*. London: NLB.
- Thibault, P. J. (2004). *Agency and consciousness in discourse: Self-other dynamics as a complex system*. New York & London: Continuum.

- Thielman, S. (2016, May 12). Facebook news selection is in the hands of editors not algorithms, documents show. *The Guardian*. Accessed May 14, 2016 from <https://www.theguardian.com/technology/2016/may/12/facebook-trending-news-leaked-documents-editor-guidelines>
- Thomas, W. I., & Znaniecki, F. (1920). *The Polish Peasant in Europe and America: Mongograph of an Immigrant Group. Volume IV: Disorganization and Reorganization in Poland*. Boston: Gorham Press.
- Thompson, J. (2011). Magic for a people trained in pragmatism: Kenneth Burke, *Mein Kampf*, and the early 9/11 oratory of George W. Bush. *Rhetoric Review* 30 (4), 350-371.
- Thompsen, P. A., & Foulger, D. A. (1996). Effects of pictographs and quoting on flaming in electronic mail. *Computers in Human Behavior*, 12(2), 225-243.
- Thompson, R., & Murachver, T. (2001). Predicting gender from electronic discourse. *British Journal of Social Psychology* 40(2), 193-208.
- Thompson, R., Murachver, T., & Green, J. (2001). Where is the gender in gendered language? *Psychological Science*, 12(2), 171-175.
- Thrift, N. (2008). *Non-representational Theory: Space, Politics and Affect*. London: Routledge.
- Thrift, N. (2004). Intensities of feeling: towards a spatial politics of affect. *Geografiska Annaler*, 86 B, 57-78.
- Thurlow, C. (2006). From statistical panic to moral panic: the metadiscursive construction and popular exaggeration of new media language in the print media. *Journal of Computer-Mediated Communication*, 11(3), 667-701.
- Thurlow, C. (2003). Generation Txt? The sociolinguistics of young people's text-messaging. *Discourse Analysis Online*, 1(1).
- Thurlow, C., & Jaworski, A. (2013). Banal globalization? Embodied actions and mediated practices in tourists' online photo sharing. In C. Thurlow & K. Mroczek. *Digital discourse: language in the new media* (pp. 220-250). Oxford: Oxford University Press.
- Thurlow, C. & Mroczek, K. (2013). *Digital discourse: language in the new media*. Oxford: Oxford University Press.
- Thurlow, C., & Poff, M. (2013). Text messaging. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 163-198). Berlin & Boston: De Gruyter Mouton.
- Tidwell, L. C. & Walther, J. B. (2002). Computer-mediated communication effects on disclosure, impressions, and interpersonal evaluations: Getting to know one another a bit at a time. *Human Communication Research* 28 (3), 317-348.

- Tien, A. (2010). The semantics of human interaction in Chinese e-communication. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 437-467). Hershey, PA & New York: Information Science Reference.
- Tjora, A. H. (2011). Invisible whispers: accounts of SMS communication in shared physical space. *Convergence* 17, 193-211.
- Toma, C. L., & Hancock, J. T. (2013). A new twist on love's labor: self-presentation in online dating profiles. In K. B. Wright & L. M. Webb (eds.), *Computer-mediated communication in personal relationships*. New York: Peter Lang.
- Tong, S. T., & Walther, J. B. (2011). Just say 'no thanks': Romantic rejection in computer-mediated communication. *Journal of Personality Personal Relationships* 28(4), 488-506.
- Toulmin, S. (1958). *The Uses of Argument*. Cambridge: Cambridge University Press.
- Trager, G. L. (1964/1958). Paralanguage: a first approximation. In D. Hymes, *Language in culture and society: a reader in linguistics and anthropology* (pp. 274-289). New York: Harper & Row.
- Trapani, W. C. (2009). Materiality's time: rethinking the event from the Derridean *espitis d'a-propos*. In B. A. Biesecker & J. L. Lucaites, *Rhetoric, materiality & politics*, pp. 321-345. New York: Peter Lang.
- Tryphon, A., & Vonèche, J. J. (1996). *Piaget-Vygotsky: The Social Genesis of Thought*. Hove, East Sussex, UK: Psychology Press
- Tsiplakou, S. (2009). Doing (bi)lingualism: language alternation as performative construction of online identities. *Pragmatics* 19(3), 361-391.
- Tuan, T. -F. (1977). *Space & Place: The Perspective of Experience*. Minneapolis: University of Minnesota Press.
- Tuan, T. -F. (1974). *Topophilia: A study of environmental perception, attitudes, and values*. New York: Columbia University Press.
- Turkle, S. (2015). *Reclaiming conversation: The power of talk in a digital age*. New York: Penguin Press.
- Turkle, S. (2011). *Alone together: why we expect more from technology and less from each other*. New York: Basic Books.
- Turkle, S. (Ed). (2008a). *The inner history of devices*. Cambridge: MIT Press.
- Turkle, S. (Ed). (2008b). *Falling for science: Objects in mind*. Cambridge: MIT Press.
- Turkle, S. (Ed.). (2007). *Evocative objects: Things we think with*. Cambridge: MIT Press.

- Turkle, S. (1995). *Life on screen: identity in the age of the internet*. New York: Simon & Schuster.
- Turkle, S. (1994). Constructions and reconstructions of self in virtual reality: playing in the MUDs. *Mind, Culture, & Activity*, 1(3).
- Turkle, S. (1986/1980). Computer as Rorschach. In G. Gumpert & R. Cathcart (Eds.), *Inter/media: interpersonal communication in a mediated world*. 3rd Edition (pp. 439-459). New York & Oxford: Oxford University Press. [Reprinted from *Society*, 17(2)]
- Twitchell, D. P., & Nunamaker, J. F. Jr. (2004). Speech act profiling: a probabilistic method for analyzing persistent conversations and their participants. In *Proceedings of the 37th Hawaii International Conference on System Sciences*. Los Alamos, CA: IEEE Computer Society.
- Twitchell, D. P., Adkins, M., Nunamaker, J. F. Jr., & Burgoon, J. K. (2004). Using speech act theory to model conversations for automated classification. In M. Aakhus & M. Lind (Eds.), *Proceedings of the 9th International Working Conference on the Language-Action Perspective on Communication Modeling (LAP 2004)* (pp. 121-130). New Brunswick, NJ: International Working Conference on the Language-Action Perspective on Communication Modeling.
- Unsworth, L., & Cléirigh, C. (2009). Multimodality and reading: the construction of meaning through image-text interaction. In C. Jewitt (Ed.), *Routledge handbook of multimodal analysis* (pp. 151-164). London & New York: Routledge.
- Urciuoli B. (1995). The indexical structure of visibility. In B. Farrell (ed), *Human Action Signs in Cultural Context: The Visible and the Invisible in Movement and Dance*. Metuchen, NJ & London: The Scarecrow Press.
- Urry, J. (2000). *Sociology Beyond Societies*. London: Routledge.
- Utz, S. (2001). Der Aufbau von interpersonalen Beziehungen in MUDs: Die Rolle von Motive und Kommunikationsstrategien. *Gruppendynamik*, 32, 145-160.
- Utz, S. (2000). Social information processing in MUDs: The development of friendships in virtual worlds. *Journal of Online Behavior*, 1(1).
- Vaisman, C. (2011). Performing girlhood through typographic play in Hebrew blogs. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: language in the new media* (pp. 177-196). Oxford: Oxford University Press.
- Valkenburg, P. M., Schouten, A. P., & Peter, J. (2005). Adolescents' identity experiments on the internet. *New Media & Society*, 7(3), 383-402.
- Vallee J. & Johansen R. (1974). *Group communication through computers: a study of social effects*, vol. 2 (Research Rep. R-33). Menlo Park: Institute for the Future.

- Vallee J., Johansen R., Lipinski H., & Miller R. (1974). *Group communication through computers: design and use of the FORUM system, vol. 1* (Research Rep. No. R-32). Menlo Park: Institute for the Future.
- Vallee J., Johansen R., Lipinski H., Spangler K., & Wilson T. (1978). *Group communication through computers: social, managerial, and economic issues, vol. 4* (Research Rep. R-40). Menlo Park: Institute for the Future.
- Vallee J., Johansen R., Lipinski H., Spangler K., & Wilson T. (1975). *Group communication through computers: pragmatics and dynamics, vol. 3* (Research Rep. R-35). Menlo Park: Institute for the Future.
- Vallesi, A., Binns, M., A., & Shallice, T. (2008). An effect of spatial-temporal association of response codes: Understanding the cognitive representations of time. *Cognition*, 107, 501-527.
- van Ochs, W., & Coursaris, C. K. (2014). Social media research: an assessment of the domain's productivity and intellectual evolution. *Communication Monographs*. Published online before print May 5, 2014.
- Vandergriff, I. (2013). Emotive communication online: A contextual analysis of computer-mediated communication (CMC) cues. *Journal of Pragmatics*, 51, 1-12.
- Vandergriff, I. (2010). Humor and play in CMC. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 235-251). Hershey, PA & New York: Information Science Reference.
- Vannini, P., Waskul, D., & Gottschalk, S. (2012). *The senses in self, society, and culture: A sociology of the senses*. New York & London: Routledge.
- Varis, P. & Blommaert, J. (2014). Conviviality and collectives on social media: Virality, memes and new social structures. *Tilburg Papers on Culture Studies*, No. 108. Tilburg: University of Tilburg.
- Varnelis, K. (Ed.). (2008). *Networked Publics*. Cambridge: MIT Press.
- Vásquez, C. & Cooren, F. (2013). Spacing practices: the communicative configuration of organizing through space-times. *Communication Theory* 23 (1), 25-47.
- Vazire, S., & Gosling, S. D. (2004). E-perceptions: personality impressions based on personal websites. *Journal of Personality and Social Psychology*, 87(1), 123-132.
- Velghe, F. (2011). Lessons in textspeak from Sexy Chick: Supervernacular literacy in South African instant and text messaging. *Tilburg Papers in Culture Studies*, no. 1.
- Vertovec, S. (2007). Super-diversity and its implications. *Ethnic & Racial Studies*, 30 (6), 1024-1054.

- Vetere, F., Smith, J., & Gibbs, M. (2009). Phatic interactions: Being aware and feeling connected. In P. Markopoulos & W. Mackay (eds.), *Awareness systems: Advances in theory, methodology, and design*, pp. 173-186. Dordrecht: Springer-Verlag Limited.
- Virilio, P. (2007). *Speed & politics*. M. Polizzotti (Trans.). Los Angeles: Semiotext(e).
- Virilio, P. (1991a). *The aesthetics of disappearance*. P. Beitchman (Trans.). New York: Semiotext(e).
- Virilio, P. (1991b). *The lost dimension*. D. Moshenberg (Trans.). New York: Semiotext(e).
- Virtanen, T. (2013a). Mock performatives in online discussion boards: toward a discourse-pragmatic model of computer-mediated communication. In D. Tannen & A. M. Trester, *Discourse 2.0: language and new media* (pp. 155-166). Washington DC: Georgetown University Press.
- Virtanen, T. (2013b). Performativity in computer-mediated communication. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 269-290). Berlin & Boston: De Gruyter Mouton.
- Vigsø, O. (2010). Extremist stickers: Epideictic rhetoric, political marketing, and tribal demarcation. *Journal of Visual Literacy* 29 (1), 28-46.
- Vitanza, V. (1997). *Negation, subjectivity, and the history of rhetoric*. Albany: State University of New York Press.
- Vivian, B. (2012). Up from memory: Epideictic forgetting in Booker T. Washington's Cotton States Exposition Address. *Philosophy & Rhetoric* 45 (2), 189-212.
- Vivian, B. (2009). Rhetorical arts of praise and blame in political transformation. In B. W. Dayton & L. Kriesberg, *Conflict transformation and peacebuilding: Moving from violence to sustainable peace*, pp. 74-90. London & New York: Routledge.
- Vivian, B. (2006). Neoliberal epideictic: Rhetorical form and commemorative politics on September 11, 2002. *Quarterly Journal of Speech* 92 (1), 1-26.
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture*. Online before print, August 18, 2014.
- Vološinov, V. N. (1973). *Marxism and the philosophy of language*. L. Matekja & I. R. Titunik (Trans.). New York & London: Seminar Press.
- Voyce, M. (2016, February 18). The time David Bowie told Dave Grohl to "f-off". *Nerdist.com*. Retrieved from <http://nerdist.com/the-time-david-bowie-told-dave-grohl-to-f-off/>
- Vygotsky, L. (1986). *Thought and Language*. (A. Kozulin, Ed.). Cambridge: MIT Press.

- Wagner, E., & Stempfhuber, M. (2013). "Disorderly conduct": on the unruly rules of public communication in social network sites. *Global Networks*, 13(3), 377–390.
- Wagner, K. (2013). *Emoji Dick*, a novel translated into emoji, accepted by the Library of Congress. Gizmodo.com. <http://gizmodo.com/5985603/emoji-dick-a-novel-translated-into-emoji-accepted-by-library-of-congress/all>. Accessed 8 February 2015.
- Waldvogel, J. (2007). Greetings and closings in workplace email. *Journal of Computer-Mediated Communication*, 12(2), 456–477.
- Walker, E., & Cooperrider, K. (2016). The continuity metaphor: Evidence from temporal gesture. *Cognitive Science*, 40 (2), 481–495.
- Walker, J. (2000). *Rhetoric & poetics in antiquity*. Oxford: Oxford University Press.
- Walker, J. (1996). Before the beginnings of "poetry" and "rhetoric": Hesiod's eloquence. *Rhetorica* 14 (3), 243–264.
- Walther, J. B. (2006). Nonverbal Dynamics in Computer-Mediated Communication, or :(and the Net :)’s with You, :) and You :) Alone. In V. Manusov & M. L. Patterson (Eds.), *The Sage Handbook of Nonverbal Communication* (pp. 461–479). Thousand Oaks, London, New Delhi: Sage Publications.
- Walther, J. B. (2004). Language and communication technology: introduction to the special issue. *Journal of Language and Social Psychology*, 23(4), 384–396.
- Walther, J. B. (1996). Computer-mediated communication: impersonal, interpersonal, and hyperpersonal interaction. *Communication Research*, 23(1), 3–43.
- Walther, J. B. (1993). Impression development in computer-mediated interaction. *Western Journal of Communication*, 57(3), 381–398.
- Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19(1), 52–90.
- Walther, J. B., Anderson, J. F., & Park, D. W. (1994). Interpersonal effects in computer-mediated interaction: A meta-analysis of social and antisocial communication. *Communication Research*, 21(4), 460–487.
- Walther, J. B., & Burgoon, J. K. (1992). Relational communication in computer-mediated communication. *Human Communication Research*, 19(1): 50–88.
- Walther, J. B., & D’Addario, K. P. (2001). The impacts of emoticons on message interpretation in computer-mediated communication. *Social Science Computer Review*, 19(3), 324–347.
- Walther, J. B., Deandrea, D. C., & Tong, S. T. (2010). Computer-mediated communication versus vocal communication and the attenuation of pre-interaction impressions. *Media Psychology*, 13(4), 364–386.

- Walther, J. B., Loh, T., & Granka, L. (2005). Let me count the ways: the interchange of verbal and nonverbal cues in computer-mediated and face-to-face affinity. *Journal of Language and Social Psychology*, 24(1), 36–65.
- Walther, J. B., & Jang, J. (2012). Communication processes in participatory websites. *Journal of Computer-Mediated Communication*, 18(1), 2–15.
- Walther, J. B., & Parks, M. R. (2002). Cues filtered out, cues filtered in: computer-mediated communication and relationships. In M. L. Knapp & J. A. Daly (Eds.), *Handbook of interpersonal communication*. 3rd ed (pp. 529-563). Thousand Oaks: Sage.
- Walther, J. B., & Tidwell, L. C. (1995). Nonverbal cues in computer-mediated communication, and the effect of chronemics on relational communication. *Journal of Organizational Computing*, 5(4), 355–378.
- Walther, J. B., Slovacek, C. L., & Tidwell, L. C. (2001). Is a picture worth a thousand words? Photographic images in long-term and short-term computer-mediated communication. *Communication Research*, 28(1), 105-134.
- Wang, V., Tucker, J. V., & Rihill, T. E. (2011). On phatic technologies for creating and maintaining human relationships. *Technology & Society* 33, 44-51.
- Warschauer, M., El Said, G. R., & Zohry, A. G. (2002). Language choice online: globalization and identity in Egypt. *Journal of Computer-Mediated Communication*, 7(4).
- Waseleski, C. (2006). Gender and the use of exclamation points in computer-mediated communication: an analysis of exclamations posted to two electronic discussion lists. *Journal of Computer-Mediated Communication*, 11(4), 1012-1024.
- Waskul, D. & Douglas, M. (1997). Cyberself: the emergence of self in on-line chat. *Information Society*, 13(4), 375-397.
- Watts, D. J. (2003). *Six degrees: The science of a connected age*. New York: W.W. Norton & Co.
- Watts, S. A. (2007). Evaluative feedback: perspectives on media effects. *Journal of Computer-Mediated Communication*, 12(2), 384-411.
- Weaver, R. (1990). Language is sermonic. In P. Bizzell & B. Herzberg, *The rhetorical tradition*, pp. 1351-1360. Boston: Bedford-St. Martin.
- Weber, E. U., & Morris, M. W. (2010). Culture and judgment and decision making: the constructivist turn. *Perspectives on Psychological Science*, 5, 410-419.
- Weber, M. (1978). *Economy and society: An outline of interpretive sociology*. G. Roth & C. Wittich (eds.). Berkeley: University of California Press.

- Wei, R. (2014). Texting, tweeting, and talking: effects of smartphone use on engagement in civic discourse in China. *Mobile Media & Communication*, 2(1), 3-19.
- Weiner, J. F. (2011). Enhoused speech: the rhetoric of Foi territoriality. In C Meyer & F Girke, *The rhetorical emergence of culture*, pp. 173-190. New York & Oxford: Berghahn Books.
- Weisbuch, M., Ivcevic, Z., & Ambady, N. (2009). On being liked on the web and in the “real world”: Consistency in first impressions across personal web pages and spontaneous behavior. *Journal of Experimental Social Psychology* 45, 573-576.
- Weissenborn, J. & Klein, W. (1982). *Here and there: Cross-linguistic studies on deixis and demonstration*. Amsterdam & Philadelphia: Johns Benjamins Publishing Company.
- Wells, S. (2014). Genres as species and spaces: Literary and rhetorical genre in *The Anatomy of Melancholy*. *Philosophy & Rhetoric* 47 (2), 113-136.
- Werry, C. (1996). Linguistic and interactional features of Internet relay chat. In S. C. Herring (ed.), *Computer-mediated communication: linguistic, social, and cross-cultural perspectives* (pp. 47-63). Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Werth, P. (1999). *Text Worlds: Representing Conceptual Space in Discourse*. New York: Pearson Education Inc.
- Wertsch, J. V. (1998). *Mind as action*. New York & Oxford: Oxford University Press.
- Wertsch, J. V. (1991). *Voices of the mind: A sociocultural approach to mediated action*. Cambridge: Harvard University Press.
- Wertsch, J. V. (1985). *Vygotsky and the social formation of the mind*. Cambridge: Harvard University Press.
- West, L., & Trester, A. M. (2013). Facework on Facebook. In D. Tannen & A. M. Trester (Eds.), *Discourse 2.0: Language & New Media* (pp. 133–154). Washington DC: Georgetown University Press.
- Westaby, J. D., Pfaff, D. L., & Redding, N. (2014). Psychology and social networks: A dynamic network theory perspective. *American Psychologist* 69(3), 269-284.
- Westen, D., Blagov, P. S., Herenski, K., Kilts, C., & Hamann, S. (2006). Neural bases of motivated reasoning: an fMRI study of emotional constraints on partisan political judgment in the 2004 U.S. presidential election". *Journal of Cognitive Neuroscience*, 18, 1947–1958.
- Wetherell, M. (2012). *Affect and Emotion: A New Social Science Understanding*. London: Sage.

- Whalen, J. M., Pexman, P. M., Gill, A. J. (2009). "Should be fun—not!" Incidence and marking of nonliteral language e-mail. *Journal of Language and Social Psychology*, 28(3), 263-280.
- White, M. B. (1998). The rhetoric of edification: African American didactic literature and the ethical function of epideictic. *Howard Journal of Communication* 9 (2), 125-136.
- White, H. (1992). *Identity and Control: A Structural Theory of Social Action*. Princeton: Princeton University Press.
- Whiteman, N. (2009). The de/stabilization of identity in online fan communities. *Convergence*, 15(4), 391-410.
- Wierzbicka, A. (1999). *Emotions Across Languages and Cultures: Diversity and Universals*. Cambridge: Cambridge University Press.
- Wilkins, H. (1991). Computer talk: long-distance conversations by computer. *Written Communication*, 8(1), 56-78.
- Williams, D. (1995). Space, intersubjectivity, and the conceptual imperative: three ethnographic cases. In B. Farnell (ed), *Human Action Signs in Cultural Context: The Visible and the Invisible in Movement and Dance*. Metuchen, NJ & London: The Scarecrow Press.
- Williams, F. & Rice, R. E. (1983). Communication research and the new media technologies. In R. N. Bostrom (Ed.), *Communication yearbook* 7 (pp. 200-224). Beverly Hills: Sage.
- Williams, R. (1983). *Towards 2000*. London: Chatto & Windus/The Hogarth Press.
- Wills, G. (1992). *Lincoln at Gettysburg: The words that remade America*. New York: Simon & Schuster.
- Wisebuch, M., Ivcevic, Z., & Ambady, N. (2009). On being liked on the web and in the real world: consistency in first impressions across personal webpages and spontaneous behavior. *Journal of Experimental Social Psychology*, 45(5), 573-576.
- Witmer, D. F., & Katzman, S. L. (1997). On-line smiles: does gender make a difference in the use of graphic accents? *Journal of Computer-Mediated Communication*, 2(4).
- Wittgenstein, L. (1981). *Zettel*. 2nd ed. G. E. M. Anscombe & G. H. Von Wright (Eds.). Oxford: Blackwell.
- Wolf, A. (2000). Emotional expression online: gender differences in emoticon use. *CyberPsychology & Behavior*, 3(5).
- Woodiwiss, A. (2001). *The visual in social theory*. London & New York: Athlone Press.
- Wright, K. B., & Webb, L. M. (2011). *Computer-mediated communication in personal relationships*. New York: Peter Lang.

- Wynn, E., & Katz, J. E. (1997). Hyperbole over cyberspace: Self-presentation and social boundaries in internet home pages and discourse. *Information Society* 13(4), 297-327.
- Wyss, E. L. (2008). From the bridal letter to online flirting: Changes in text type from the nineteenth century to the Internet era. *Journal of Historical Pragmatics*, 9(2), 225-254.
- Xu, D. (ed.). (2008). *Space in languages of China: Cross-linguistic, synchronic, and diachronic perspectives*. New York: Springer Science + Business Media.
- Yang, C. (2007). Chinese Internet language: A sociolinguistic analysis of adaptations of the Chinese writing system. *Language@Internet*, 4.
- Yang, C. -C., Brown, B. B., & Braun, M. T. (2014). From Facebook to cell calls: Layers of electronic intimacy in college students' interpersonal relationships. *New Media & Society*, 16(1): 5-23.
- Yang, M. M. (2011). President Nixon's speeches and toasts during his 1972 trip to China: A study in diplomatic rhetoric. *Rhetoric & Public Affairs* 14 (1), 1-44.
- Yates, S. J. (1996). Oral and written linguistic aspects of computer conferencing. In S. C. Herring (Ed.), *Computer-mediated communication: linguistic, social and cross-cultural perspectives* (pp. 29-46). Amsterdam & Philadelphia: John Benjamins Publishing Company.
- You, X. (2006). The way, multimodality of ritual symbols, and social change: Reading Confucius's "Analects" as a rhetoric. *Rhetoric Society Quarterly* 36 (4), 425-448.
- Yuan, E. J., Feng, M., & Danowski, J. A. (2013). "Privacy" in semantic networks on Chinese social media: the case of Sina Weibo. *Journal of Communication*, 63(6), 1011-1031.
- Yunyu, T., Keqin, K., Yi, S., & Xuqun, Y. (2008). Interpersonal perception in bulletin board systems among Chinese internet users. *Computers in Human Behavior*, 24(5), 2043-2054.
- Yus, F. (2014). Not all emoticons are created equal. *Linguagem Em Discurso*, 14 (3), 511-529.
- Yus, F. (in press). Social Media. *Routledge handbook of pragmatics*.
- Yus, F. (2011). *Cyberpragmatics: internet-mediated communication in context*. Amsterdam & Philadelphia: John Benjamins Publishing Company.
- Yus, F. (2010). User's relevance on the web. In R. Taiwo (Ed.), *The handbook of research on discourse behavior and digital communication: language structures and social interaction* (pp. 411-423). Hershey, PA & New York: Information Science Reference.
- Zappavigna, M. (2015). Searchable talk: The linguistic functions of hashtags. *Social Semiotics*. doi dx.doi.org/10.1080/10350330.2014.996948

- Zappavigna, M. (2014). Enacting identity in microblogging through ambient affiliation. *Discourse & Communication*, 8(2), 209–228.
- Žegarac, V. & Clark, B. (1999). Phatic interpretations and phatic communication. *Journal of Linguistics* 35 (2), 321-346.
- Zeytinoglu, C. (2007). Advertising as epideictic rhetoric and its implications for ethical communication. Accessed 30 July 2015 from http://citation.allacademic.com/meta/p_mla_apa_research_citation/2/5/8/3/8/pages258387/p258387-1.php
- Zhao, S., Grasmuck, S., & Martin, J. (2008). Identity construction on Facebook: digital empowerment in anchored relationships. *Computers in Human Behavior*, 24(5), 1816-1836.
- Zhao, D. & Rosson, D. M. (2009). How and why people Twitter: the role that micro-blogging plays in informal communication at work. In *Proceedings of the ACM 2009 International Conference on Supporting Group Work* (pp. 243-252). New York: ACM.
- Zuñiga, F. (2006). *Deixis and alignment: Inverse systems in indigenous languages of the Americas*. Amsterdam & Philadelphia: John Benjamins Publishing Company.

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- Karatzogianni, A. & Schandorf, M. (2016). Surfing the revolutionary wave 2010-2012: A technosocial theory of agency, resistance, and orders of dissent in contemporary social movements. In A. Ornella (Ed), *Making Humans: Religious, Technological & Aesthetic Perspectives*, pp. 43-73. Oxford: Interdisciplinary Press.
- Schandorf, M. (2013). Mediated gesture: Paralinguistic communication & phatic text. *Convergence* 19 (3), 319-344.
- Schandorf, M. (2012). No hay espacio: significado y corporalización en entornos mediados. In J. C. Arias (Ed), *Codificar/Decodificar: Prácticas, espacios y temporalidades del audiovisual en internet*, pp. 217-246. Bogota: Editorial Pontificia Universidad Javeriana.
- Schandorf, M. (2009). Romantic ‘ghoststory’: Lingeringshades of Shelley in Ulysses. *Texas Studies in Language & Literature* 51 (4), 416-425.