

# **Logic Elaborated: An Account of the Source of the Normativity of Logic**

by

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THESIS

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To my daughter, Yalda.

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## SUMMARY

The idea that logic has a normative role to play in our lives by telling us what we should and shouldn't believe is well-entrenched in both philosophical tradition and our ordinary thinking about logic. In my dissertation, I focus on the question of the source of the normativity of logic – that is, why should we (on the assumption that we indeed should) heed the advice of logic? In the first part of the dissertation, I argue against the standard answer to this question. I call it the “extrinsic view”. This view holds that (1) logic is to be understood as entirely independent from how we think and reason; and (2) the source of the normativity of logic lies in certain normative facts about belief – most notably that belief aims at truth. I argue against both components of the view, claiming, first, that the most well-established candidates for a definition of validity (i.e., the model-theoretic and truth-preservation accounts) face serious philosophical challenges; and, second, that the idea that belief aims at truth is not fit to vindicate the full range of normative roles that we take logic to play. In the second part of the dissertation, I turn to an assessment of whether an alternative view can be rendered intelligible and defended. According to what I call the “intrinsic view”, logic is itself a normative enterprise. I defend a pragmatic constitutivist interpretation according to which logic is in the business of laying out (formally – in some sense of formal to be clarified) the norms that constitutively govern our believing practices. I examine one of the most serious stumbling blocks against the constitutive component of the view, namely, the possibility of error. I argue that constitutivism is entirely consistent with certain kinds of logical error, even though there

## **SUMMARY (Continued)**

are other kinds which it rules out. I then offer a sketch of how logic could be understood as formally laying out certain features of our believing practices. This suggests pluralism about logic, i.e., the idea that there is more than one correct logic. I argue that there is no tension between pluralism and the constitutive component of the proposal.



## CHAPTER 1

### INTRODUCTION

Suppose your friend, Yaya, is looking for a key. She is told by a trusted friend that it is in either of the two drawers of a certain desk. She looks in the first drawer and doesn't find it there. What should she believe? At first, it might seem as if she should believe that the key is in the second drawer. But if we want to be more cautious (and we will shortly see that there is reason for this), then, at the very least, she shouldn't believe that the key is not in the second drawer. Either way logic seems to play a crucial role in explaining why: that the key is in the second drawer follows by logical necessity from the key being in either of the two drawers and it not being in the first.

But this raises the question: Why should Yaya heed the advice of logic? What is it about logic that gives it the authority to tell Yaya what she should or shouldn't believe? Or is it perhaps something about what Yaya is doing, i.e., believing, which explains the role that logic seems to play here? In short, what is the *source* of the normativity of logic? Call this the "source question".

#### 1.1 Normativity of Logic: A Brief Survey

Before we go too far down this rabbit hole, allow me to offer a quick overview of the current literature on the "normativity of logic" and say what I find missing in it. This will help to sharpen our question and locate our discussion going forward.

The idea that logic is normative for thinking is well-entrenched in the philosophical tradition. However, there has been a recent resurgence of interest in whether and how logic is normative for thinking. The recent debate on the normativity of logic begins with ([Harman, 1986](#)). Harman famously argued for the skeptical position that logic cannot have any special relevance for reasoning, because if it did, it would have unacceptable consequences for what one should believe. For instance, suppose your friend, Yaya, ends up believing that the key is in the second drawer. Harman observes that if Yaya is for some independent reason certain that the key isn't in the second drawer, it would just be implausible to think that it is a requirement of rationality that she should believe that the key is in the second drawer anyway. Perhaps the thing to do for her is to conclude that her trusted friend isn't all that trustworthy after all.

As has been pointed out, however, Harman's argument works only if we assume something like the following principle connecting logic and what we should and shouldn't believe: "if  $P, Q \models R$ , then if you believe  $P$  and  $Q$ , then you ought to believe  $R$ ". However, why think that there are no other alternative ways of connecting logic and what we should and shouldn't do that avoids this unattractive consequence? In other words, the fact that given the above principle leads to the unacceptable results that Harman points out, shouldn't be taken to mean that there is no plausible way of conceiving of the relation between logic, on the one hand, and what we should and shouldn't believe, on the other.

In fact, there are alternative "bridge principles" — to use a phrase coined by the widely-cited but unpublished ([MacFarlane, 2004](#)). — which avoid Harman's challenge. Just to give

you a taste of what this would look like, we can avoid Harman's challenge by having the "ought" take wide scope over the embedded conditional: "if  $P, Q \models R$ , then you ought to see to it that if you believe  $P$  and  $Q$ , then you believe  $R$ ". Because the "ought" has wide scope in this principle, you can satisfy it by either believing  $P$ ,  $Q$ , and  $R$ , on the one hand, or not believing  $P$  and  $Q$ . Thus, for instance, if you are certain of  $R$ , you could satisfy the "ought" by not believing either  $P$  or  $Q$ .

Unfortunately, this principle faces challenges of its own. For instance, if you are committed to believing  $P$  and  $Q$ , it requires that you believe *every*  $R$  that follows from  $P$  and  $Q$ . The principle, in other words, demands that we "clutter" our mind with all sorts of irrelevancies if we believe anything at all. But the same observation can be made again: even if this principle has to be rejected, that's consistent with logic having normative import for us through some alternative bridge principle. For instance, it might be suggested that we can weaken the principle by invoking the attitude *disbelief*, i.e., belief in the negation. Thus, one might propose the following principle, which is worth flagging:

(Wo-)<sup>1</sup>"if  $P, Q \models R$ , then you ought to see to it that if you believe  $P$  and  $Q$ , then you don't disbelieve  $R$ ", where not disbelieving  $R$  leaves open the possibility of not taking any attitude toward  $R$ .

Perhaps not surprisingly, this principle, too, faces its own challenges, but like before there are other principles that might be suggested in its place.

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<sup>1</sup> This is the label (MacFarlane, 2004) uses.

The recent debate on the normativity of logic can be seen as a series of back-and-forths in which the main goal is to adjudicate between the different possible bridge principles by doing a sort of cost-benefit analysis: the project is to go through all the possible objections and pick the bridge principle with the fewest strikes against it.<sup>2</sup>

In this dissertation, I don't want to directly enter into this debate; instead, my aim is to focus on the largely neglected, but equally (if not more) important question of the *source* of the normativity. To see that the latter is indeed neglected, note that the bridge principle debate is entirely silent on the source question. Virtually every proposed bridge principle takes the shape of a conditional laying down a necessary condition that must hold given that certain logical facts obtain. What's special about these conditional principles is that the consequent of the conditional, i.e., the necessary condition, is a normative statement about our beliefs. Thus, according to MacFarlane's influential schema, the bridge principles have the following structure:

If  $P, Q \models R$ , then ...

where the three dots is filled in with some normative statement about our beliefs.

Already at this abstract level, however, we can see that even if we manage to find a principle which is immune to Harmanesque challenges, all it can ever do is give us information about the normative implications of logic for thinking; it cannot offer an answer to the source question: Why should logic have any such implications in the first place?

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<sup>2</sup>Some participants are (Field, 2015), (MacFarlane, 2004), (Pettigrew, 2017), (Steinberger, 2019b), and (Steinberger, 2016).

An initial point to make is one that has been in the background of the debate ever since the release of MacFarlane's paper. MacFarlane motivates the project of finding a viable bridge principle by highlighting the promise it has for settling disagreements about logic, for instance, between a relevance logician and a classical logician. Relevantist's often argue against classical logic by pointing to what they take to be unintuitive normative implications of classical logic for reasoning. MacFarlane's idea is that once we have a viable bridge principle – arrived at by utilizing data that is independent of the disagreement between the classicist and the relevantist – we can use it to evaluate these kinds of arguments and settle the disagreement between the relevantist and the classical logicians. MacFarlane's ultimate conclusion is that the relevance logician's argument fails, because once we plug in his preferred bridge principle, Wo- (cited above), classical logic turns out not to have the unintuitive implications that the relevantist contends. In effect, then, MacFarlane shows that we can use the necessary condition laid out in our bridge principles to adjudicate some logical disagreements. If it succeeds, this is not a trivial result, because the preferred bridge principle is supposed to be arrived at independently from the considerations that moves the relevantist. Given that this seems like a promising line of thought, one might think that, in just this sense, our principles are enough to tell us something about which logic is correct.

However, if the bridge principles only lay out necessary conditions for logical validity, then they could only be used to adjudicate different logics when these logics put differing normative constraints on belief. This is just a general observation about necessary conditions. Suppose having a cover is a necessary condition for being a book. Then the principle that "if

something is a book, it has a cover” can only be used to adjudicate between different bookhood candidates, if the candidates differ with respect to whether they have a cover. Two people can agree on all the cover-related facts and still disagree about whether something counts as a book. For instance, if my friend and I disagree on whether a given issue of the Times Literary Supplement counts as a book, the above principle doesn’t help as we both agree that it does have a cover. Similarly, in the case of logic, because the normative claims in the consequent of the bridge principles are only necessary conditions of logical validity, it is possible that two people agree on all the normative claims and yet disagree about logic. For instance, a classical logician and an intuitionist might agree that one is under no obligation to believe that one is a pumpkin on the assumption that  $P \wedge \neg P$ , while still disagreeing on whether  $P \wedge \neg P \models \perp$ . The classical logician could just insist that we can explain the lack of a normative requirement to believe by appeal to some non-logical fact, namely, by appeal to the right bridge principle, while the intuitionist thinks that the lack of a requirement traces back to her preferred logic. At the end of the day, perhaps we will find that we should rest content with a bridge principle of this sort. However, insofar as there is an aspiration to adjudicate disagreements about logic by appeal to its normativity for reasoning, we do well to explore the possibility of offering something more than a necessary condition.

Moreover, even if the necessary condition gives us a partial measure by which to settle disagreements over candidate logics, my earlier point stands that it still provides no account of how it is so much as possible for logic to have *any* normative implications for reasoning. It simply ignores the question. If it turns out that we can’t answer this question, the whole

project of looking for a viable bridge principle would lose its interest. So, we must ask, “is there anything more that we can say about the relation between logic, on the one hand, and good reasoning on the other?”

## 1.2 Prospectus

The plan is as follows. In the next two chapters (2 and 3), I identify and argue against what I label the “extrinsic view” of the source of the normativity of logic. This view has a strong claim to being the standard view on the source question. According to the view, logic is to be understood in total isolation from believing. In addition, on this view, the source of the normativity of logic lies in certain facts about belief — that belief in some rough sense aims at the truth. By far the most prominent version of this view, which arguably goes back to the father of modern logic, Gottlob Frege, holds that the most central concept in logic is the notion of logical validity and that the way to define it is in terms of the preservation of truth. Together with the idea that belief aims at truth, this view holds, logic can have normative implications for belief.

Despite its initial attractiveness, both components of the extrinsic view face damning challenges. These will be the topics of the next two chapters. In chapter 2, I examine the idea that we can give a rigorous definition of logical validity in total isolation from our doxastic lives. I first rehearse and critically evaluate an argument due to ([Kreisel, 1967](#)), which purports to show that logical validity can be defined in model-theoretic terms. I argue that Kreisel’s argument fails, because he is in effect confused about his target notion. I then turn to an argument that has recently been put forward by ([Field, 2015](#)) and others that aims to show that the

most widely-accepted definition of validity, i.e., the Tarskian truth-preservation account of logical validity, fails. In broad terms, the argument is meant to show that the concept of truth-preservation and our inter-theoretic concept of validity come apart and so the latter cannot be defined in terms of the former. I defend Field's argument against a potential worry and argue that Field succeeds in showing that the truth-preservation account fails to define the notion of logical validity.

Despite the success of Field's argument, however, it should be clear that a Field-style argument cannot conclusively reject the extrinsic view. For this kind of argument leaves open the possibility that there are alternative ways of defining the notion of validity that could ultimately succeed – a point I make in more detail at the close of chapter 2.

In chapter 3, I turn to the challenge against the second of the two components of the extrinsic view, namely, that the source of the normativity of logic lies in facts about belief. This challenge is more fundamental, because it doesn't depend on any particular way of working out the definition of logical validity, and so it can be used to show that *any* version of the extrinsic view is bound to fail.

One of the commitments of the extrinsic view is to ground the correct bridge principle (e.g., (Wo-)) on other more fundamental doxastic norm(s) like the so-called "truth norm" for belief: i.e., roughly that we should aim to have true belief and avoid false ones. Typically, however, the status of these more fundamental norms is beside the point for the extrinsic view. Whether one holds, say, a constructivist or a natural reductionist or a platonic realist view about the underlying fundamental norm, the question for the extrinsic view is the same:



can one trace the normativity of logical norms to the more fundamental norm? Accordingly, in chapter 3, I bracket all discussion of the meta-normative status of the fundamental doxastic norm(s) that the extrinsic view assumes. My question instead is: Assuming the existence of such fundamental norm(s), can the normativity of a principle such as (Wo-) be traced back to those more fundamental norm(s)?

I begin the chapter by elaborating on what I mean by the normative role that logic plays for belief. I identify what I call the “response-guiding” role, which is best exemplified in cases of deliberation about what to believe, on the one hand, and cases in which one gives advice with the advisee’s perspective in mind, on the other. I then argue that the extrinsic view must be rejected because it cannot account for this role. To do this, I consider a number of variations along extrinsic lines and argue that they all fail because they are either independently implausible or incapable of accounting for the response-guiding role of logic. The view that occupies me the most is the so-called “dominance”-based view which is found in the recent epistemic utility theory (EUT) program.

Finally, I consider the influential “evidentialist” proposal of ([Kolodny, 2007](#)) and argue that one would accept the unattractive consequences of this view only if one assumes that there are no alternatives to the extrinsic view – an assumption that I think we should reject as the subsequent chapters show.

The rest of the dissertation (chapters 4 and 5) is dedicated to defending an alternative proposal. In contrast to the extrinsic view, my proposal can be described as “intrinsic”: Logic, on this account, is itself a normative enterprise in the sense that it is essentially in the business

of laying out (formally – in some sense of formal to be clarified) the norms that constitutively govern belief. The idea behind the intrinsic view is that in the order of explanation, our doxastic practices come first and it is in relation to these practices that we should understand logic. If we succeed in offering a viable intrinsic account of logic, we need not appeal to some independent doxastic norm(s) like the truth norm – as on the extrinsic view – to vindicate, say, (Wo-). For since on this account, logic is itself (a part of) the science of the norms of belief, to give such an account is *a fortiori* to give an account of the source of the normativity of logic, too.

In chapter 4, I distinguish between two tasks for the intrinsic view:

1. giving a viable account of the constitutivity of the norms of belief.
2. offering an understanding of how logic is supposed to “explicate” or “codify” these norms.

Focusing on the first task in the rest of the chapter, I consider one of the most serious stumbling blocks for the idea that certain norms might be “constitutive” for belief, namely, that the view seems to rule out the possibility of error. I propose that we can find a solution to this problem by turning our attention to the normative structure of holding a belief: that one takes on commitments and entitlements in virtue of holding a belief. I call the standing one possesses in virtue of engaging in any activity which involves taking on commitments and entitlements a “normative standing”. Paradigmatic cases of normative standings are participating in a practice, for instance, being a player in a chess game or serving as a referee in a football match. I argue that quite generally we must distinguish between, on the one hand, the conditions

under which one takes on commitments and thereby possesses a normative standing, and, on the other, the conditions under which those commitments would be satisfied. I label these the “possession” and “satisfaction” conditions of commitments respectively. I then argue that if we appreciate this distinction in the case of holding belief, we can use it to show that there can be cases in which one counts as holding a belief and yet deviates from the constitutive norms. I call such cases “error from obstruction”.

While this kind of error is certainly possible, I argue that a different kind of error, what I label “error from skepticism”, is indeed ruled out by the constitutive account. I argue that since explicitly flouting the logical norms with the aim of raising a skeptical worry against the constitutive view assumes that we can step back from believing, as it were, and ask whether the logical norms in question are worth conforming to, it is in fact impossible to achieve such a feat. For while for certain normative standings one can step back and ask this kind of question, in the case of holding a belief and the logical commitments it involves, this is indeed impossible.

I end the chapter by arguing that despite the impossibility of error from obstruction, this should not be taken to imply that any particular account of logical norms is to be privileged over others. I argue that constitutivism is entirely consistent with pluralism about logic, i.e., the view that there is more than one correct logic. I suggest that pluralism fits well with intrinsic constitutivism, for the latter is a view about the *source* of the normativity and that it takes no stance on whether there is one true logic or what the content of correct logical norms

are. This will provide the groundwork for our discussion of the second of the two tasks for the intrinsic view in the next chapter.

My main aim in the next chapter (chapter 5) is to elaborate further on each of the two sides of the distinction between possession and satisfaction conditions of commitments involved in belief. Focusing on the former, I pursue a venerable tradition which places the idea of “reflection” or “self-determination” at the heart of what is involved in taking on a commitment. After considering some arguments against this way of understanding the possession conditions of belief, I argue that there is a way of making good on this idea for the case of belief. I defend the view according to which holding a belief should be understood as an active exercise of a rational capacity. I call it the “Active Model”. While the idea of an “exercise of a rational capacity” goes some way in helping us to get a grip on the possession condition of holding a belief, however, it can seem unsatisfying in that it could seem to avoid facing up to the real challenge of offering a full account. I attempt to remedy this by offering a gloss according to which exercising one’s rational capacity is understood as being such that a certain “why”-question can always be raised about one’s performances. The idea is that the legitimacy of the appropriate “why”-question presupposes and grounds a certain relationship which I stand to my doxastic commitments, namely, that of possessing the normative standing of “taking on” these commitments.

After considering the possession conditions, I turn to the satisfaction conditions of belief and argue that while it might appear as a natural assumption that these are fixed by the conditions under which one possesses a belief, it is nevertheless a mistake to think this.

My argument relies on general observations about commitments and their satisfaction conditions: Since generally one can possess a normative standing without thereby determining what would count as satisfying the commitment, I argue that given our understanding of holding a belief as (partially) possessing a normative standing (and therefore taking on some commitments), there is no reason to think that in the case of belief the content of what one commits oneself to is exhaustively determined by the conditions under which one possesses the commitment. I argue that this observation opens up the possibility for another kind of “error” which we can lay alongside the two we encounter in chapter 4. I label this latter kind “error from ignorance”.

In the last part of chapter 5, I attempt to provide a more positive answer to the question of what the satisfaction conditions of the “logical” commitments that one takes on as a believer are. My aim in this section is to tackle the second of the two tasks which I isolated in the previous chapter for the intrinsic view: to show how anything recognizable as “logic” from a modern perspective can be thought to “explicate” the content of the commitments one takes on in virtue of holding a belief. Drawing on ([Brandt, 2010](#)), I argue that we can do this by thinking of logic as a certain kind of metavocabulary for any exercise of our rational capacities as believers – namely, the metavocabulary whose use is something that is in principle available (in a sense to be clarified) to anyone who has the ability to engage in the practice of believing at all.

Given this picture, one might, quite naturally, be led to think that the satisfaction conditions of the commitments one takes on as a believer (which logic makes explicit) are settled as a

matter of brute psychological fact. However, I argue that we have a more attractive option, namely, that the satisfaction conditions are determined by the broader established practices that we engage in as believers. This fits perfectly with the constitutivism of chapter 4 as it makes it clear that no particular account of the constitutive features of belief is to be privileged over others. The success of such an account is always measured by reference to how well it captures its target practices.

Attending to the ever-changing and messy nature of our practices, it might seem as if this view is not very promising. However, I think that this is too hasty. As I argue throughout chapters 4 and 5, one's taking on the commitments involved in one's believing is not to be confused with the conditions that determine what it takes to satisfy those commitments. One's commitments are intact, on this view, even if the satisfaction conditions change depending on the context and over time. Applied to the satisfaction conditions that logic is in the business of making explicit, this implies that even if we adopt a contextual pluralism, on the lines that I suggest at the end of 4 to allow us to account for certain diverging attitudes about what follows from what in a given context, this poses no threat to the normative role of logic.

## CHAPTER 2

### THE DEFINITION OF VALIDITY

#### 2.1 Introduction

It's easy nowadays to find the source question puzzling. Why, one might wonder, think that there is any problem about the source of the normativity of logic? After all, Frege taught us that logic is the science of the laws of truth, not the laws of "taking-to-be-true", i.e., contingent principles governing our human psychology. According to this line of thought, then, our understanding of logic is wholly independent from anyone's thinking or reasoning. If there are normative implications of logic, this view holds, these should be understood on a par with the normative implications of other sciences like physics or chemistry: one ought to think in accordance with them, in so far as one aims to have true beliefs. Thus, just as a law of physics like  $F = ma$  is not itself normative, but can have normative implications for someone who wants to know what the force acting on an object of mass  $m$ , moving with acceleration  $a$  is, so it is with logic. While the laws of logic are themselves normatively inert, they can have normative implications if what one wants to have are true beliefs about the world.<sup>1</sup>

On this view, then, the normative implications of logic are something *extrinsic* to it. Logic itself is not in the business of studying what we should and shouldn't believe; insofar as it

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<sup>1</sup>I start this passage by invoking Frege. However, it is a matter of controversy what Frege thought about the source of the normativity of logic. For a defense of an interpretation of Frege along the extrinsic lines see (MacFarlane, 2002) and (MacFarlane, 2017).

does tell us what we should and shouldn't believe, it does so only in virtue of what we aim to achieve in our doxastic life. Call this the extrinsic view of the normativity of logic.<sup>2</sup>

The extrinsic view, then, comprises two theses:

1. Logical validity is to be defined independently of belief and, more generally, thinking.
2. The normativity of logic has its source in certain facts about belief.

The most prominent version of the extrinsic view places a central emphasis on truth. According to this version of the extrinsic view, following ([Tarski, 2002](#)), logical validity is defined as the necessary preservation of truth in virtue of logical form. As for the second component, the most prominent way of working out the extrinsic view holds that logic has its normative implications in virtue of the fact that reasoning and belief 'aim' at truth. No doubt, this metaphorical idea requires further elaboration, but roughly it is that one ought to believe what one takes to be true and not believe what one takes to be false.

Often, in the metaethics literature, views that attempt to ground morality in some fundamental value like the good or desirable are labeled as 'consequentialist'.<sup>3</sup> Following ([Berker, 2013](#)), we can characterize *epistemic* consequentialism as the view that takes certain epistemic goods as fundamental and tries to account for the rationality or reasonableness of our beliefs and belief forming processes in virtue of their conduciveness toward bringing about these fundamental goods (244). There are different views about what these epistemic goods are: some

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<sup>2</sup>For a recent defense of the extrinsic view see ([Russell, 2017](#)).

<sup>3</sup>See ([Berker, 2013](#)).



count relevance or demonstrability as epistemic goods, but by far the most popular view is that the most fundamental good that belief aims at is truth. This is sometimes referred to as *veritism*.<sup>4</sup> The extrinsic view, thus, can be understood as the marriage between the idea that logic must be defined independently of our reasoning and some version of epistemic teleology.

To be sure, from a modern perspective, the extrinsic view can seem extremely natural. Typical introductory logic textbooks steer clear of connecting up what we do in that classroom to everyday reasoning.<sup>5</sup> And, if one does talk about everyday reasoning in one's introductory logic class, one has to be careful not to push the point too far or we risk being met by students' incredulous stares as they struggle to accept that the conditional is true when the antecedent is false or that anything whatsoever follows by logical necessity from a contradiction. The background thought here is ostensibly that logic is 'just' a formal system that has nothing directly to do with reasoning. The topic in the intro logic class isn't thinking; it is rather, depending on one's philosophical inclinations, truth preservation, proof systems, or some such formal construction.

I say that according to the standard view 'logic has nothing *directly* to do with reasoning' because, as we have seen, fans of this view need not deny that logic has any normative implications for reasoning; all we would need, they will say, is a viable "bridge principle" that connects logic, understood as an independent formal system, and reasoning in a such a way

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<sup>4</sup>For more discussion see, for instance, (Shah, 2013), (McHugh, 2011) , and (Wedgwood, 2017). See (Berker, 2013) for a review of how pervasive veritism is in contemporary epistemology.

<sup>5</sup>A notable exception is the logic textbook (Barwise et al., 2002).

that logic would not end up having unacceptable implications. For instance, we need a bridge principle that would not have it as a requirement to draw the conclusion that I'm a pumpkin from the pair of contradictory beliefs, say, that it's raining and that it is not.<sup>6</sup>

Despite the initial attractiveness of the extrinsic view, both of its components face fundamental challenges. In this and the next chapter, I will examine these. The two chapters together constitute a two-pronged argument against the extrinsic view. Below I will focus on challenges to the idea we can define validity independently of belief. I consider the most widely held definitions of logical validity – first, in particular model-theoretic terms, and, second, in terms of Tarski's more general truth-preservation account – and argue that neither can succeed.

In chapter 3, I turn to the challenge against the second component of the extrinsic view. There my contention is that even if we grant that we can define logic in terms completely independent from belief, we should still wonder whether the extrinsic view can account for all the ways in which logic plays a normative role. I argue that it cannot.

## 2.2 Model Theory and Truth Preservation

Think again of a typical introductory logic class. We introduce our students to various notions of validity. For instance, in the language of sentential logic, we provide them with a rigorously defined notion: an argument is valid just in case there is no assignment of truth values to the atomic sentences, no row of the truth table, such that the premises are true and

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<sup>6</sup>And, by the way, it turns out that it is possible to offer a bridge principle that doesn't have that unacceptable consequence. See (Steinberger, 2016), which uses this to argue that arguments for non-classical logics that build on such putative normative implications of the law of explosion fail.

the conclusion is false (call this sentential validity, or s-validity for short; the general definition is the model theoretic notion of validity: an argument is valid iff there is no model of the premises and the conclusion that makes the former true and the latter false).

Now, can this serve as an account of validity in general? I think that the answer is clearly not. In our introductory classes, we illustrate the inadequacy of s-validity by showing that while the argument from "all humans are mortal", and "Socrates is a human" to "Socrates is mortal" is clearly deductively good, it is nevertheless s-invalid. But note that this is just an instance of a more general worry: What makes any given formal definition of validity, be it model or proof theoretic, worthy of the name? Even if there is a rigorous notion of validity for which, unlike in the case of s-validity, we cannot give obvious counterexamples, it behooves us to say what interest there is in our mathematical machinery.

I think the answer has to be that these mathematically defined notions are philosophically interesting because they are meant to capture an intuitive *inter-theoretic* notion which is of independent philosophical interest.<sup>7</sup> In the case of s-validity, it is pretty explicit from the start that we are dealing with a toy concept, but no matter how simple or complex the technical definition, the idea remains the same: the aim is to use our mathematical machinery to get at the inter-theoretic notion of validity.

The observation is nicely summarized by ([Shapiro, 1998](#)): "... logic is, at root, a philosophical enterprise. Since at least the beginning of the twentieth century, however, logic has become

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<sup>7</sup>For the distinction between an intuitive and a formal notion of validity see ([Etchemendy, 1999](#), intro.), which traces the idea back to ([Tarski, 2002](#)).

a branch of mathematics as well as a branch of philosophy. [...] Our main question here concerns how that wonderful mathematics relates to the philosophical target ...” (651).<sup>8</sup> The point, then, is that we need to distinguish between the intuitive, inter-theoretic notion of validity and the formal mathematically defined notions which have been the focus of logicians since Frege. The latter include both model theoretic (semantic) and proof theoretic (syntactic) notions. The philosophical interest of these mathematical notions lies in their ability to capture something of the intuitive, inter-theoretic notion that is of independent philosophical importance.

Now, despite these observations, there is an elegant argument due to (Kreisel, 1967), which purports to show that some particular model theoretic account is in fact coextensional with what Kreisel calls our intuitive notion of validity.<sup>9</sup> In the next section, I consider this argument. Getting clear on how Kreisel’s argument fails will help us in thinking about the rest of our discussion in this chapter.

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<sup>8</sup>Cited in (Andrade-Lotero and Novaes, 2012).

<sup>9</sup>An example of someone who seems to assume this result is (Corcoran, 1974). Corcoran takes on the question of the completeness of the Aristotelian syllogistic logic – the question of whether the Aristotelian system is capable of proving all intuitively valid arguments. To show that the intuitive notion and the Aristotelian syllogistic are coextensional, Corcoran develops a semantic account of validity in respect to which the Aristotelian system is sound and complete. He thus takes it that the task of showing that the Aristotelian syllogistic is coextensional with our intuitive notion is to show that it is sound and complete with respect to a formal semantic account. As we shall see, this is just an instance of the squeezing argument. See (Andrade-Lotero and Novaes, 2012) for discussion and further references.

### 2.2.1 The “Squeezing” Argument

([Kreisel, 1967](#))’s argument has come to be known as the “squeezing argument”. In order to see the relevance of that name, allow me to lay out the argument in a schematic form first.<sup>10</sup> I will return to the original argument as applied to the case of validity shortly.

Consider a concept *I* which is informally understood. Now, suppose we have a rigorously defined notion, *S*, such that being an *S* is sufficient for being an *I*. Thus,

$$1. \forall e(e \text{ is } S \rightarrow e \text{ is } I)$$

Suppose further that we can find another rigorously defined concept, *N*, which is necessary for being *I*. Thus,

$$2. \forall e(e \text{ is } I \rightarrow e \text{ is } N)$$

Finally, suppose that we can show that every thing that is *N* is also *S*. That is, being *N* is sufficient for being *S*:

$$3. \forall e(e \text{ is } N \rightarrow e \text{ is } S)$$

What we have now is something interesting: a closed circle of entailments. Every *S* is *I*, every *I* is *N*, and every *N* is *S*. What that means is that to show that something is *I* one can do either of two things: either show that it is *S*, which immediately by (1) would show that it is *I*; or show that it is *N* in which case by (3) we know that it is *S* and thereby by (1) we show that it is *I*. In other words, by (1) and (2) we have *S* is a subset of *I* which is a subset of *N*. Thus, *I* is

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<sup>10</sup>In this I am following ([Smith, 2011](#)).

“sandwiched” between  $S$  and  $N$ . What (3) adds is that  $N$  is a subset of  $S$ , which “squeezes” the domain of  $N$  and  $S$  together to match that of  $I$ . Given (1), (2), and (3), the three concepts turn out to be coextensional.

Kreisel applies this schematic argument to the case of validity. Here is how the argument goes. Kreisel starts with an “informal” notion of validity, where by that Kreisel means not having a counter-model in the domain of all possible models, for a given understanding of models. He calls this “informal” notion  $\text{Val}$ . Since the standard first-order proof system is designed from ground up to be sound, i.e., it doesn’t prove things which are intuitively invalid, Kreisel argues, we can safely assume that if a sentence is derivable,  $D(\alpha)$ , then it is valid. That is,

$$4. \forall \alpha (D(\alpha) \rightarrow \text{Val}(\alpha))$$

Next, Kreisel takes the predicate  $V(x)$  to pick out the set of all first-order valid arguments. That is, arguments that don’t have a counter-model in the domain of first-order models, where first-order models are mathematically defined and perfectly formal. Since the set of first order models is a subset of all models, if an argument doesn’t have a counter-model in all models, then clearly it doesn’t have a first-order counter model. Thus,

$$5. \forall \alpha (\text{Val}(\alpha) \rightarrow V(\alpha))$$

Finally, given the completeness of the standard first-order proof system, we know that an argument that doesn’t have a counter-model in the domain of all models is derivable:

$$6. \forall \alpha (V(\alpha) \rightarrow D(\alpha))$$

Thus, we get an instance of the squeezing argument: an argument is intuitively valid iff it is first-order valid iff it is provable in the standard first-order derivation system. This seems to prove that the intuitive notion of validity and the model theoretic one are coextensive.

What has gone wrong here? The problem is that we are using the phrase “intuitive notion of validity” ambiguously.<sup>11</sup> On the one hand, if we take it to mean, following Kreisel, not having a counter-model in the domain of all models, then the argument is perfectly fine and it does show that *this* notion is coextensive with first-order validity.

On the other hand, however, if we take it to pick out our vague notion of validity, something like “following from” or “deductively good”, then it is far from clear why we should accept the argument. In particular, (5) seems to be clearly false: Why think that an argument being valid in this broad sense implies that there is no counter-model for it in the domain of first-order models? Recall that before the rationale was the straightforward idea that since the domain of first-order models is a *subset* of the domain of all models, not having a counter-model in the latter implies not having a counter-model in the former. Thus,  $\text{Val}(x)$  is sufficient for  $V(x)$ , for all arguments  $x$ . But, given the intuitive notion, we have no reason to go along with this line of thought. Just because an argument is valid according to our intuitive notion of validity doesn’t imply that there is no counter-model in the domain of first-order models.

The upshot is this. Once we distinguish the model-theoretic concept of validity from its intuitive, inter-theoretic counterpart, we see that the squeezing argument does not work. It is

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<sup>11</sup>See (Etchemendy, 1999, ch. 11). See also (Smith, 2011).

true that completeness is a powerful result,<sup>12</sup> however, it is a mistake to think that it gives us the magical power of proving, in the words of (Smith, 2011), “by waving a techno-flash wand”, that an argument is intuitively valid iff it is valid according to our first-order definitions.

### 2.3 Field’s Argument from the Semantic Paradoxes

Our question, then, remains: neither the model-theoretic nor the proof-theoretic notions of validity can offer us an account of the intuitive, inter-theoretic notion which is of philosophical interest. If not through mathematical logic, then, how can we get any clarity on this notion?

Perhaps we can make progress on this issue by giving a less rigorous, but more general definition whose precisification in various ways would generate the different model-theoretic notions. By far the most well-established attempt to give a definition of the inter-theoretic notion of validity on these lines is the so-called truth-preservation account: an argument is valid if and only if it is impossible for the premises to be true and the conclusion to be false by virtue of their logical form. This is a less rigorous definition than, say, s-validity in that it leaves two crucial notions vague: ‘logical possibility’ and ‘logical form’. But that’s also exactly where its power lies. For depending on how one chooses to fix these notions, one can generate the different rigorous notions like s-validity, validity in first-order logic, and intuitionistic logic.<sup>13</sup> If successful, then, the truth-preservation account would help to show what’s interesting

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<sup>12</sup>See (Etchemendy, 1999) for elaboration on one positive force of Kreisel’s argument.

<sup>13</sup>In mathematical logic, this is often done by the introduction of *models*. Hence, the label “model theoretic” for the more rigorous notion introduced in the previous section. For a helpful sketch, see (Bledin, 2014, 281-2).



about the inter-theoretic notion of validity: it marks those patterns of argumentation which preserve truth.

However, there is more trouble in the horizon. Even putting aside worries about ‘logical possibility’ and how it might be smuggling in something that is itself in need of explanation, the truth-preservation account cannot offer an analysis of the inter-theoretic notion of validity. (Field, 2015) has persuasively argued that the account cannot offer an analysis of the inter-theoretic notion, because it gives the wrong predictions in certain kinds of cases. Field focuses on the Liar and related semantic paradoxes like Curry’s paradox. In the case of Curry’s paradox, the idea is that our best solution to the paradox, namely, rejecting the rule of conditional introduction, is essentially to commit to a departure between good deductive argument and the truth-preservation account of validity. I briefly rehearse his argument below.

Curry’s paradox arises for languages that include a truth predicate  $T(x)$ . In such a language, we may formulate a self-referential sentence  $K$  that stands for  $T(K) \rightarrow \perp$ , where  $\perp$  can be any sentence, but for effect we can suppose it is the sign for contradiction. Thus,  $K$  says of itself that if it is true, then a contradiction follows. Now, assuming a T-principle that allows us to derive  $T(K)$  from  $K$  and vice versa and a substitutional principle for  $K$  that allows us to substitute  $T(K) \rightarrow \perp$  for  $K$  and vice versa, we can construct a proof that shows that contradiction ( $\perp$ ) is a theorem:

1	T(K)	Assume for $\rightarrow$ -intro
2	K	T-principle on 1
3	T(K) $\rightarrow \perp$	substitution on 2
4	$\perp$	$\rightarrow$ -elim 1, 3
5	T(K) $\rightarrow \perp$	$\rightarrow$ -intro 1-4
6	K	substitution on 5
7	T(K)	T-principle 6
8	$\perp$	$\rightarrow$ -elim 5, 7

Field's own preferred solution to the paradox is to reject the rule of  $\rightarrow$ -intro. Field observes that the proponent of this solution must accept that the rest of the proof is perfectly legitimate. In particular, she must accept that deductions from 1 to 4 and 5 to 8 are perfectly good (Field, 2015, 9), 9. In fact, it is precisely her recognizing that these steps are good that leads her to rejecting the rule of  $\rightarrow$ -intro. If she didn't take these steps to be good, she would already have a way of blocking the puzzle and wouldn't have to take recourse in the rejection of  $\rightarrow$ -intro. However, at the same time, because she rejects the rule of  $\rightarrow$ -intro, she must also reject the steps 1 through 4 as truth preserving. For, that just is what it would be to reject the rule of  $\rightarrow$ -intro. If she didn't reject these steps as truth preserving, then she would have to accept  $T(T(K) \rightarrow \perp)$ , which by the T principle is just what we have on line 5 of the proof:  $T(K) \rightarrow \perp$ , and so she would have the rule of  $\rightarrow$ -intro anyway. The upshot, then, is that according to this theorist the stretch of argument from 1-4 is valid, but not truth preserving.

It's worth noting that (Bledin, 2014) argues for the same conclusion using cases such (McGee, 1985)'s famous example involving indicative conditionals. (McGee, 1985) used the following example to argue against Modus Ponens:

1. If a Republican will win the election, then if Reagan will not win, Anderson will win.
2. A Republican will win the election.
3. So, if Reagan will not win, Anderson will win.

In his original presentation of this example, McGee took it for granted that this argument is invalid. He used this to argue that since the argument would come out valid in a system that has Modus Ponens as a valid schema, the schema should not be counted as valid.

Bledin, in contrast, has a completely different intuition about the goodness of this inference. Pace McGee, he thinks that the argument is perfectly legitimate. However, Bledin notes that our best account of the semantics of indicative conditionals, i.e., the view developed by (Yalcin, 2007) and (Kolodny and Macfarlane, 2010), predicts that this is an invalid argument. Thus, he concludes that validity defined as necessary truth preservation and the intuitive idea of a good deductive argument “do not line up” (289).<sup>14</sup>

What we seem to have, then, are potential counterexamples that show that the intuitive, inter-theoretic notion of validity and the truth preservational account do not line up. That is, on this interpretation, we have reason to think that the two concepts have different extensions.

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<sup>14</sup>He goes on to argue for a different notion of validity defined in terms of preservation of acceptance at an information state. More on that in the concluding remarks.

If that's true, then the truth preservational account, as an account that is meant to capture the inter-theoretic one, is in trouble. In the next section, I will raise a worry against this interpretation of Field's argument. However, I argue that the trouble for the truth preservational account of validity remains as we can interpret the argument in a way that avoids the worry.

### 2.3.1 Neglected Alternative Worry?

One reaction to Field's argument is to push back on his preferred solution to the paradox. Field rejects  $\rightarrow$ -intro, but one might wonder what could justify that move. Why not reject the admissibility of self-referential sentences like K? Why not reject the T-principle or the substitutional principle? *Prima Facie*, these are ways of blocking the argument, without committing to a break between validity and truth-preservation. At one point, Field claims that "for nearly every way of dealing with the truth-theoretic paradoxes, it is inconsistent to hold that the logic one accepts actually preserves truth" (Field, 2009a, 351). But as far as I can tell, he never makes good on this promise and so it might seem that, barring further argumentation, the fan of truth-preservation account isn't forced to accept Field's conclusion.

This might seem like a devastating result for the argument as I've presented it so far. For what the argument seems to show is that one of the many possible solutions to the paradox produces a counterexample to the truth-preservation account. If that's true, then unless we can either show that all of the solutions to the paradox constitute a counterexample to the truth preservational account, as Field suggests in the above quote, or alternatively have an argument in favor of the move to reject  $\rightarrow$ -intro over the other solutions, we haven't been shown that there are in fact any counterexamples to the claim that all valid arguments are truth

preserving. And, that means that we haven't been given any reason to think the two notions, i.e., the intuitive notion of validity and truth preservation, in fact differ extensionally. Thus, if we interpret Field's argument as providing a counterexample to the truth preservational account, the success of the argument crucially depends on either working out the details of all the possible solutions or defending the fairly idiosyncratic move to reject the rule of  $\rightarrow$ -intro.

I don't think, however, that it is quite right to interpret Field's argument as merely proving a counterexample to the truth preservational account. As I understand the argument, there's no need to adjudicate the different solutions to Curry's paradox in order to show that the truth preservational account cannot be used to define validity.<sup>15</sup> For the point, despite the interpretation we have been looking at, isn't really that the two concepts don't share the same extension – that there are in fact counterexamples to the claim that all valid arguments are truth preserving; rather it is that the two concepts, validity and truth preservation, are different in intension. On this reading, what Field needs is not that his preferred solution, namely, rejecting the rule of  $\rightarrow$ -intro, is in fact the *correct* solution or that all of the solutions lead to a potential counterexample; rather only that his preferred solution so much as makes sense. The structure of the argument, then, on this reading is this: a certain position is available according to which one counts arguments that one takes to be valid as non-truth-preserving. Insofar as this position makes sense, to think that an argument is truth-preserving is different

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<sup>15</sup>This despite Field's own suggestion in the above quote that we need to show that the two concepts come apart for every solution to Curry's paradox.

from thinking that it is valid. Therefore, the concept of necessary truth preservation is different from validity and thus it cannot be used to define the latter.<sup>16</sup>

However, this interpretation of the argument seems to be open to an immediate problem: that it is only effective against an unnecessarily strong understanding of the truth preservational account. What our observation shows, one might object, is only that the relationship between validity and truth preservation is not analytic – that one cannot be analytically reduced to the other. But this view of the truth preservational account is a straw man. The claim that validity is necessary truth preservation in virtue of logical form need not be understood as a reductive claim.

Even worse, the objection to the interpretation of Field I suggested above has recourse to a fairly standard alternative model of how the truth preservational definition of validity might be understood. Following ([Horgan and Timmons, 1991](#)), we can call this alternative the *synthetic definition model*.<sup>17</sup> The model is best illustrated with an example. Take the claim that water is H<sub>2</sub>O. The claim is obviously not an analytic reduction. It is not true that thinking something is water is to think that it is H<sub>2</sub>O. For instance, presented with a sample of water my 5-year-old self thought that it is water, but he probably didn't think that it is H<sub>2</sub>O. Despite that, however, we still think of the claim that water is H<sub>2</sub>O as an important scientific discovery

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<sup>16</sup>Note that on this reading Field's argument is thus a version of ([Moore, 1903](#))'s open question argument against the naturalistic accounts of goodness. The debate over open question arguments including the epistemic versions of it is complex and different versions of it abound. For a overview of the epistemic open question arguments see ([Greco, 2015](#)).

<sup>17</sup>The view is famously defended by ([Kripke, 1980](#)).

about the world. On the synthetic definition model, we make sense of that by saying that water is a *rigid designator*. To say that a concept is a rigid designator is to say that it picks out the same stuff in every possible world. The most popular version of this view holds that water, for instance, manages to rigidly designate H<sub>2</sub>O in virtue of certain causal relations that hold between the concept and its uses and the stuff in the lakes and rivers on earth.<sup>18</sup> On this model, then, even though “water” and “H<sub>2</sub>O” aren’t synonyms and therefore one is not reductively analyzed in terms of the other, they nevertheless are coextensional in virtue of certain contingent causal relations.

Now, one might be inclined to propose a similar suggestion in the case of validity. The idea is that while it is true that validity cannot be reductively defined in terms of truth preservation, as shown by observations like that of Field, we can nevertheless hold that the necessary preservation of truth in virtue of logical form provides a synthetic definition of validity. That is, “validity” works in a similar fashion to a natural kind term like “water” in that it rigidly designates those arguments which necessarily preserve truth in virtue of logical form. We can gloss this further as before by saying that the designation works because of certain causal relations between validity and truth preservation such as the general agreement of experts and so on.

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<sup>18</sup>There are other alternatives here. For instance, one might think that natural kind terms are reference magnets. See, for instance, (Lewis, 1984). For discussion see (Schwarz, 2014). For our purposes we need not take sides in this debate. What I’m going to go on to say here does not presuppose any particular view on rigid designation.

Accepting this suggestion would seem to avoid the worry that Field raises against the truth preservational account. If the claim that validity is necessary truth preservation in virtue of logical form is understood as a synthetic definition, then there seems to be no reason to expect that thinking about validity, on the one hand, and thinking about truth preservation, on the other, would amount to the same thing. Just as I can think that a certain sample is water while I fail to think (or even disbelieve) that it is  $H_2O$ , so I can think an argument is valid but fail to think that it is truth preserving. In neither case, however, is there any reason to think that I have anything less than a definition of the respective concept. And thus, it seems that if we allow for synthetic definitions on the model of natural kind terms, Field's argument fails.

The suggestion, however, is what fails. To see why, first note that in the case of validity it is not clear that the truth preservational account is meant as a synthetic definition as opposed to an analytic one. Most defenders of the truth preservational account, for instance, seem to present the view as a definition that is meant to analyze the notion of validity. An indication of that is the fact that no account that I have encountered aspires in any explicit way to defend a naturalistically respectable account of validity. Typically, the truth preservational account is presented in total abstraction from these philosophical issues and that seems to suggest that it is meant as a reductive definition.

Still, this is not a definitive response by any means. The synthetic definition option does indeed present itself as an attractive route which the proponent of the truth preservational account might take, especially in light of an argument like Field's. In order for the argument to succeed, then, we must consider whether we can reject this suggestion on its own terms.



I think that the synthetic definition model of the truth preservational account fails because the case of validity and natural kind terms are relevantly different. In particular, I think that while we have good reason to think that natural kind terms are rigid designators, we do not have similar evidence in the case of validity. To see this, let us consider ([Putnam, 1975](#))'s famous Twin Earth thought experiment.<sup>19</sup> As we have seen, according to the synthetic definition model, water rigidly designates the stuff in lakes and rivers on Earth. We said that the most typical way of cashing out that idea is that water stands in certain causal relations to the stuff in lakes and rivers on Earth, namely,  $H_2O$ . Now, consider a Twin Earth, a planet which is almost identical with Earth, only in its lakes and rivers runs not  $H_2O$  but a substance very much like  $H_2O$  in that it behaves and looks the same but with a different chemical compound, say, XYZ. According to the synthetic definition model, since the concept water rigidly designates  $H_2O$  it cannot pick out the stuff in lakes and rivers on Twin Earth. Accordingly, the Twin Earthlings' use of the similar sounding concept water is a completely different concept which rigidly designates XYZ. Accordingly, even though the concept water is used by inhabitants of both worlds, there really are two concepts here:  $water_{Earth}$  and  $water_{TwinEarth}$ , each rigidly designating a different stuff in every possible world.

There seems to be overwhelming evidence that the synthetic definition model gets things right with respect to a natural kind term like water. Suppose, for instance, that a scientist from Earth visits Twin Earth. She interacts with the Twin Earthlings and sees the stuff in their

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<sup>19</sup>The structure of the argument that follows is based on ([Horgan and Timmons, 1991](#))'s argument against the new wave of naturalistic accounts of the "good".

lakes and rivers and comes, naturally enough, to believe that their concept of water picks out  $H_2O$  as it does on her planet, Earth. But, of course, she is mistaken. After a few experiments she discovers that the chemical compound of the stuff on Twin Earth is different and in fact their term water does not pick out  $H_2O$  as she expected. It seems obvious that it would be a fruitless discussion for her to try to convince the Twin Earthlings that water is  $H_2O$ . If she did try, it seems that the discussion would go nowhere, because our scientist and her Twin Earthling colleagues would be talking past each other: one would be talking about  $water_{Earth}$  and the other about  $water_{TwinEarth}$ . Many have thus argued that a natural kind term like water is a rigid designator which prevents it from being translatable by the Twin Earthlings' orthographically identical concept.<sup>20</sup>

Now, the question I want to pose is this: "Do we have the same evidence in the case of validity?" If the suggestion to understand the truth preservational account on the synthetic definition model were correct, we should find the same evidence suggesting that there are radical differences of meaning in the concept of validity across worlds. Since, as I shall argue, this is not the case, I think we have reason to think that the synthetic definition model fails in the case of validity.

Let us consider how the Twin Earth thought experiment might go in the case of validity. Consider Earth first. According to the synthetic definition model, the notion of validity is a rigid designator which picks out arguments which preserve truth in virtue of logical form.

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<sup>20</sup>See, for instance, ([Putnam, 1975](#)).

And, as before, even though there are many ways of glossing that idea, for our purposes we can assume the standard view according to which validity rigidly designates truth preservation in virtue of certain causal connections, in particular, perhaps those involving the general agreement of the scientific community and so on.

Consider now Twin Earth. Let us suppose that here the notion of validity works in much the same way that validity works on Earth, except that the scientific community have all converged on Field's preferred solution to reject the rule of  $\rightarrow$ -intro. That is, they have accepted that there are arguments which are valid, but not truth preserving. According to the synthetic definition model, then, on Twin Earth validity does not pick out those arguments which are truth preserving. Instead, on this account validity rigidly designates something else. For instance, to have some specific view in mind, suppose that the logicians on Twin Earth agree with Field that validity should be understood in normative terms.<sup>21</sup> So, on the synthetic definition model, validity would rigidly refer to those argument which provide restrictions on what one ought or ought not to believe. As in the case of water, then, we seem to be dealing with two different concepts:  $\text{validity}_{\text{Earth}}$  and  $\text{validity}_{\text{TwinEarth}}$ , where the former picks out truth preserving argument and the latter picks out those arguments that have normative implications for belief.

Does this account seem plausible? Consider an Earthling logician who travels to Twin Earth. Here she encounters a world in which validity is used in much the same way as on

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<sup>21</sup>For a sketch of the normative view see, for instance, (Field, 2015).

Earth: Twin Earthlings criticize each other for making invalid arguments and they offer logic classes in which they make artificial languages to test out different formal accounts of validity and so on. Thus, at least at first our logician has every reason to think that the new people she has met utilize and theorize about the same concept that she is used to from Earth. However, suppose that our Earthling logician meets a logician from Twin Earth and they happen to discuss Curry's paradox. Now it will become clear to our logician that for the Earthlings the notion of validity is such that there can be valid arguments which aren't truth preserving. There seems to be two ways for her to take this information: on the one hand, she might stop the debate and treat the situation just as our scientist did when she found out that the stuff in lakes and rivers on Twin Earth is not  $H_2O$  but XYZ. That is, she might think that the Twin Earthlings' concept of validity is just a different concept and that any debate over validity with them would be fruitless and silly. On the other hand, however, she can continue the discussion and try to convince the Twin Earthling logician that validity really just is truth preservation and that therefore they should reconsider their position on Curry's paradox. I think the latter is clearly the more attractive option. When our logician finds out about the Twin Earthlings' concept and how they understand it she has every reason to try to engage with them and resolve the conflict. As there really is a conflict here. The situation, in other words, is different from the case of natural kind terms in that validity doesn't seem to behave as a rigid designator, picking out, for instance, all the arguments that are truth preserving.

If this is right, then the synthetic definition route which the proponent of the truth preservational account might take against Field's argument is blocked. What this means is that despite

the initial appearances we can't straightforwardly dismiss Field's argument (under the interpretation I offered above) as only effective against an implausibly strong view of definitions. As we just saw, the standard alternative to the analytic view of definitions, i.e., the synthetic definition model, is not available in the case of validity. To be sure, there may be other ways of understanding the truth preservational account which I haven't looked at. However, the constellation of problems which we have encountered so far, I think, suggests that the truth preservational account cannot provide an independent account of validity.

## 2.4 Conclusion

Field's argument shows that by far the most well-established way in which people have tried to define logical validity in extrinsic terms faces some tough, if not insurmountable, troubles. Do we thereby have an argument to give up on the extrinsic view of validity? To answer yes, I think, would be hasty. The reason is that the truth-preservational account is only one way of working out the details of the extrinsic view. Unless we can be sure that we have an exhaustive list of possible alternatives and can somehow show all of them to be unacceptable, we can't dismiss the extrinsic view on the grounds that it cannot define logic in independent terms from reasoning.

An example helps to illustrate the idea. Consider the recent development of the "informational" notion of logical consequence. As I mentioned at the end of §2.3, one of the main motivations for the development of such a notion as opposed to the traditional consequence relation in terms of necessary truth preservation is precisely that the notion of validity and truth-preservation don't match up well. For instance, ([Bledin, 2014](#)) uses ([McGee, 1985](#))'s fa-

mous counterexamples against Modus Ponens to argue effectively for the same conclusion as Field, namely, that there are valid arguments that do not preserve truth. The idea is that given our best semantics for epistemic modals, the standard truth preservational account of validity predicts that certain instances of Modus Ponens involving indicative conditionals with embedded epistemic modals are invalid. In response to this challenge, following (Yalcin, 2007), Bledin advocates a redefinition of validity in terms of preservation of *acceptance at an information state*, which avoids this undesirable result. The details of this account would take us far afield. For our purposes, I only want to highlight the fact that there are alternatives to the traditional notion of consequence that have been proposed in the literature.<sup>22</sup>

Notice, however, that the kind of move that Bledin makes is always in principle open to a proponent of the extrinsic view. At every turn, the proponent of the extrinsic view might try to alter their account of validity to accommodate the counterexamples. Thus, even if there are counterexamples to, for instance, Bledin's informational notion of validity, as, for example, (Santorio, 2018) has argued, this doesn't rule out the possibility that we might give yet other, more nuanced definitions that avoid even these counterexamples.

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<sup>22</sup>Field might be taken to overlook exactly the possibility that Bledin and others exploit, namely, to offer an alternative account of validity that is not susceptible to the worries to which the truth-preservational account is susceptible. For he suggests that the truth-theoretic argument against truth preservational account of validity is reason in and of itself to reject the extrinsic view and to move to what he labels a *normative* view of logic, according to which validity is understood in terms of its normative implications for thought: "If logic is not the science of what necessarily preserve truth, it is hard to see what the subject of logic could possibly be, if it isn't somehow connected to norms of thought" (Field, 2009b, 263). Read in this way, Field's argument seems to be, as (Harman, 2009) has dismissively claimed, "a real nonsequitur". I don't think this is the correct reading of Field, but that is a story for another occasion.

What we need, then, in order to put the extrinsic view to rest once and for all is a different kind of argument. In the next chapter, I take on this task.

## CHAPTER 3

### LOGIC AND THE AIM OF TRUTH

#### 3.1 Introduction

In the previous chapter, I isolated two components of the extrinsic view:

1. Logical validity is to be defined independently of belief and more generally thinking.
2. The normativity of logic has its source in certain facts about belief.

Following ([Field, 2015](#)), I raised some doubts about (1). I argued that by far the most well-established way in which people have tried to define logical validity independently of reasoning, namely, the truth-preservation account, faces some tough, if not insurmountable, troubles.

As I said at the end of chapter 2, to think that this is sufficient to reject the extrinsic view would be too hasty. For the truth-preservation account is only one way of working out the details of the extrinsic view. Unless we can be sure that we have an exhaustive list of possible alternatives and can somehow show all of them to be unacceptable, we can't dismiss the extrinsic view on the grounds that it cannot define logic in terms independent from reasoning.

This, then, brings me to the second component of the extrinsic view. In this chapter, my aim is to show that the extrinsic view fails because the account of normativity of logic that emerges from the second component of this view is untenable. Thus, even if one thinks that an independent account of logic can be given, the extrinsic view still should be rejected, because



it cannot account for the normativity of logic. In particular, I argue that the idea that belief – in some rough sense – ‘aims’ at truth cannot vindicate the full breadth of logic’s normative roles.

The plan is as follows: In the next section, I isolate what I label the “response-guiding” role of logic (§3.2). I argue that the extrinsic view must ultimately be rejected because it cannot account for this role (§3.3). To do this, I distinguish broadly between two versions of the extrinsic view: those which are committed to wide-scope principles of rationality on the one hand, and those which aren’t, on the other. I consider two variants of the first version in §3.3.2 and §3.3.3 respectively and show that they both fail because they are either independently implausible or not substantive enough to account for the normative role of logic. I then turn to the second version in §3.3.4. After pointing out some of the unattractive consequences of this version, I argue that one would be forced to accept these consequences only if one ignores the possibility of an alternative account of the source of the normativity of logic, namely, an “intrinsic” account.

### 3.2 Response-Guiding Role of Logic

Before we begin, I should say more about what I understand by what I’ve been calling the “normative” role of logic. Consider your friend, Yaya, again. We said that what she claims to know is what she *should* believe and that logic seems to play a crucial role in explaining why. But now suppose that you come to know that her claim to know that the key is in the second drawer is based on a memory of putting it there last week herself. Her belief turns out to have nothing to do with what her trusted friend told her; It’s based on her memory. In this case, it seems that it would be a mistake to say that she should believe that the key is in the second

drawer *because* of the logical fact (in the appropriate sense of because). The explanatory role which logic seemed to play in the original case is now played by her memory of putting the key in the second drawer. Thus, it is an overstatement to say that if Yaya's belief is something that is entailed by other things that she believes, then logic plays a role in explaining why she should believe it.

What this points to, I think, is this: in order for logic to play its explanatory role, we need something like a *grasp* of the logical principle – that it be, *because* of the logical principle (and its applicability in the given case) that one believes, in order for logic to play its explanatory role.

How can we get clearer on the character of the special kind of explanation that is at play here? There are at least two paradigmatic cases, one from a first-personal and the other from a third-personal perspective, in which this kind of explanatory role of logic manifests itself most clearly. Looking at these cases helps to get a clearer sense of the relevant explanatory role of logic.

The first kind of case is *first-personal* deliberation. The original example involving Yaya is an instance of such a case. Yaya can come to know that the key is in the second drawer by *inferring* it from her belief that it's in either of the two and that it's not in the first. But if she fails to see the logical relation, for instance, because she's distracted or that she attends instead to a memory that she put the key in the drawer herself, then she wouldn't know that the key is there *because* she believes that the key is in either of the two drawers and not in the first. No doubt, she might nevertheless come to believe or even know that the key is in the second

drawer anyway, but in such cases she doesn't know that the key is in the second drawer *because* of the logical facts. Thus, in cases where she is distracted and attends instead to her memory, logic doesn't recommend, as we might say, believing one thing rather than another.

The other paradigmatic case in which the special explanatory role of logic manifests itself is what we might label “constructive *third-personal* advice”. Suppose that despite seeing that key isn't in the first drawer and knowing that it is in either of the two drawers, Yaya still wonders where to look for the key. Observing Yaya, you can advise her to look in the second drawer, not merely because you realize that it must be in the second drawer, but because you see that Yaya is in a position to realize that it must be in the second drawer; that is, you attribute to her a grasp of the logical relations between her beliefs and thereby take her to have everything she needs in order to realize where the key is. Thus, you can tell her: “Didn't you just look in the first drawer? And isn't it true that if it's not there, it has to be in the second drawer? So, you should look in the second drawer.”<sup>1</sup>

I call such cases *constructive* advice, because the advice is given taking the perspective of the agent into account; it tells her what to believe given what *she* is in a position to know, not what to believe from some privileged point of view. In this way, this kind of advice is typically constructive, because it is typically meant to help the advisee to see the right conclusion rather than revealing the conclusion without offering a rationale.

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<sup>1</sup>Strictly speaking because of roughly Harmanian worries, which we encountered in §1 we should probably revise our advice to something more like “So, whatever you do you shouldn't disbelieve that the key is in the second drawer”. The plausibility of the more positive advice might be due to the particular to the features of this example. I ignore this complication for ease of presentation.

To be sure, the sense of *grasp* here must be qualified in such a way that it would not invite a charge of over-intellectualization. That is, what the grasp of the logical relations consists in cannot amount to an belief that one *explicitly* holds. For, in that case, the kind of explanation that I have in mind would not be available in most cases, as not many people have any explicit thoughts about logical relations. So, for instance, if Yaya is distracted or is not paying attention, then she wouldn't have anything like an explicit belief about what follows from things that she believes, and therefore logic couldn't play its response-guiding role. The idea behind requiring a *grasp* of the logical principles, then, should rather be that one somehow *implicitly* possesses a concept of validity, which then makes the kind of explanation that I have in mind possible.<sup>2</sup>

Needless to say, there is much more to be said about the response-guiding role of reasons in general and of logic in particular. However, I think that the above two cases give us a clear enough intuitive understanding of the kind of role that I am labeling "response-guiding" to allow us to move forward.

Now, in the next section I argue that *if* logic plays a response-guiding role, then the extrinsic view must be rejected. However, there might be some reservation about the antecedent of

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<sup>2</sup>Arguably we need to say something stronger here. It might be that in light of the lesson from (Carroll, 1895)'s famous discussion of deductive inference we have to make room for a notion of "grasp" that is more radically different from *belief*. So, we might say that in order for the grasp of the logical laws to play a role we must have some kind of know-how whose content is not the sort of thing that serves as another premise in a syllogism. For discussion see (Ryle, 1954, VII). There are roughly two ways in which I think this suggestion might unfold: first, we might think that the know-how is of general rules of inference which get implemented in particular cases of inference, or, alternatively, we might construe the know-how as an ability to make particular moves and view logic as a theoretical framework that seeks to systematically study our particular practices. The latter is the kind of "conventionalism" which, according to (Warren, 2017), (Quine, 1936)'s famous arguments leave open as a live possibility. I'm attracted to this alternative, but cannot argue the point here.

that conditional. So, before getting to the argument, allow me to say a few words about this worry.

The worry here is that the “normative” role that logic plays is, to use a phrase used by (Kolodny, 2005), merely *classificatory*, helping us to categorize beliefs or constellations thereof as good or bad. On this account, logic gives us a set of norms or standards by which we can *evaluate* or *assess* beliefs or bits of reasoning from a third-personal perspective. A mark of the kind of assessment I have in mind here is that it excludes what I called constructive advice above even though the latter is also from a third-personal perspective.

A helpful example to illustrate the merely classificatory notion is the case of artifacts. Consider a toaster. Arguably from the function of a toaster, we can derive what it is to be a *good* toaster and from this we can construct ought-claims from a third-personal perspective about toasters: that, for instance, toasters ought to toast bread. However, there is no sense in which we can *advise* a toaster that it should toast breads.

According to the above proposal about the normative role of logic, this is how things are with logic, too: Logic is supposed to merely tell us what a *good* belief system or epistemic agent is and we can thereby construct claims about what we ought and ought not believe.

I don’t disagree that logic can play a merely classificatory role as this suggestion proposes: logic does seem to provide us with standards of evaluation according to which we might assess and criticize each other and constellations of beliefs, assertions, etc. We might pursue this idea in terms of the proper functioning of an agent or a system and develop a kind of virtue theory,

too.<sup>3</sup> All of this seems plausible enough; however, what I am keen to press here is that there is more to the normative role that logic plays.<sup>4</sup> As we saw before, we use logic from the ‘third-person perspective’ to offer constructive *advice* about what one is called to believe, and we also use our logical knowledge — explicitly but more often implicitly — from the ‘first-personal perspective’ to *deliberate* about what we should and shouldn’t believe. If this is true, we must admit that logic’s normative role is not limited to the merely classificatory.<sup>5</sup>

### 3.3 Answering the Source Question

Can we account for the full range of normative roles that logic plays for us on an extrinsic view? Given the understanding of the response-guiding role in the previous section and given that logic plays such a role, I think that the answer has to be “no”.

Consider the second component of the extrinsic view: that the normativity of logic has its source in certain facts about reasoning and belief. Let us go back to the case of Yaya and the key. What the second component of the extrinsic view means is that the proponent of the extrinsic view could not rest content with just citing logical facts to explain why Yaya should believe the key is in the second drawer; what’s needed, according to the extrinsic view, is some more fundamental account, an account that traces the *source* of the normativity of logic to some

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<sup>3</sup>A neo-naturalist account of this type can be found in (Thomson, 2008).

<sup>4</sup>See (Wallace, 2011) for a similar claim against (Thomson, 2008). Needless to say, the debate between Wallace and Thomson is not about the normativity of *logic*, specifically, but normativity in general. See also (Kolodny, 2005, 555).

<sup>5</sup>For further discussion on the different roles that logic plays, see (Steinberger, 2017). See also (Steinberger, 2019b).

fundamental fact(s) about belief. The proponent of the extrinsic view is thus committed to providing an underlying explanation, having to do with the nature of belief, that vindicates why Yaya ought to believe that the key is in the second drawer.

To be sure, this can naturally lead to the question of the *ultimate* source of the normativity. One might understandably worry that the proponent of the extrinsic view is simply postponing a proper answer when it comes to the source of the normativity. My aim here, however, is to focus on a different challenge. Let us, therefore, bracket the question of the ultimate source and the nature of the normativity. Suppose, if you prefer, that there are primitive normative facts about belief and reasoning. Our question, then, is this: Can we account for the normativity of logic by assuming that there are normative facts about belief? That is to say, can we trace the source of the normativity of logic to that of belief?

In order to get further clarity on the burden that the extrinsic view takes on, in §3.3.1 I consider an initial answer which is not in fact available to the proponent of the extrinsic view. This will help to pinpoint what it is that the extrinsic view needs in order to “vindicate” a bridge principle.

In the subsequent two sections (§3.3.2 and §3.3.3), I consider two variations on the extrinsic view. I argue that each is untenable. My master argument against these views is meant to provide a recipe that would work against any extrinsic view as long as it endorses the following two claims:

- (I) Logic plays a response-guiding role

- (II) The correct bridge principle lays out global properties of the state (a combination of attitudes) which is not reducible to properties of individual attitudes.

The second claim implies that logic plays its normative role not by placing restrictions on individual attitudes, but by placing “coherence requirements” on *sets* of doxastic attitudes, where “coherence” is a global property of states or sets of doxastic attitudes. A coherence requirement is a “wide-scope” requirement in the sense that it is expressible by an “ought” that takes wide-scope over a combination of attitudes. We encountered an example of wide-scope bridge principle in chapter 1:

(Wo-) if  $P, Q \models R$ , then you ought to see to it that if you believe  $P$  and  $Q$ , then you don’t disbelieve  $R$ , where not disbelieving  $R$  leaves open the possibility of not taking any attitude toward  $R$ .

In general a wide-scope requirement doesn’t require holding any particular belief; instead it rules out a combination of attitudes.<sup>6</sup>

Despite the general aim of the master argument, for ease of presentation I pick one of the most uncontroversial wide-scope bridge principles (i.e., (Wo-)) and show that even though it might seem promising to think that we can give an argument for the bridge principle on the assumption that belief aims at truth, this move is in fact not available to the proponent of the extrinsic view and that therefore this view cannot account for the normativity of logic.

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<sup>6</sup>I follow (Easwaran and Fitelson, 2012) in this use of “coherence requirement”. For the idea that coherence norms are in general wide-scope, see (Broome, 1999).



After rejecting the two variants of the extrinsic view that are committed to (II), I turn, in (§3.3.4), to a recent attempt by (Kolodny, 2007) to defend the extrinsic view by rejecting (II). I show that this last ditch attempt to save the extrinsic view leads to some unattractive consequences, which one would have to accept only on the assumption that there is no viable alternative to the extrinsic view. I end by offering a sketch of what an alternative would look like.

### 3.3.1 The Burden of the Extrinsic View

The response that I think is not a viable option for the proponent of the extrinsic view is this: the reason why Yaya ought to believe that the key is in the second drawer is that one's belief system ought to have a certain kind of structure, which turns out to be systematically captured by logic. On this account, the normative fact about belief which is supposed to offer an explanation of the normativity of logic is that belief systems ought to have a certain kind of structure.

Now, although there's clearly much more to be said about this proposal, particularly about how logic is supposed to systematically capture the structure in question, I don't deny that this is a viable option as such; the problem is that it isn't an option for the proponent of the extrinsic view. The reason is that what the extrinsic view is after, as we have seen, is a *more fundamental* explanation of why logic is normative and the account at hand here is not that. What we want is an explanation that would vindicate the normativity of logic. But what do we gain by saying that our beliefs ought to conform to the laws of logic because belief systems ought to have a certain structure (which logic is supposed to in some sense capture)? It seems that we don't

make much progress, if we said that. In other words, it seems that the question of why I should heed the advice of logic, on this account, just is the question of why should my belief system have the structure in question. But, if the strategy of the proponent of the extrinsic view is to succeed, these questions must come apart. It is only if we get some traction between normative facts about logic and those about belief that we can give a more fundamental explanation of the normativity of logic by connecting it to the normativity of belief. Since on the assumption that belief ought to have a certain structure we don't get a more fundamental explanation of the normativity of logic, this response is not a viable option for the extrinsic view.<sup>7</sup>

### 3.3.2 No Guaranteed Inaccurate Attitude

What could count as a fundamental normative fact about belief which might vindicate the normativity of logic? As we saw, the idea that belief aims at the truth is one of the hallmarks of the most popular versions of the extrinsic view. On this view, the normative fact about belief that explains the normativity of logic is that belief has truth as its aim. One initial way of glossing that idea would be to say that following the correct bridge principle results in having true beliefs and avoiding false ones. Can this idea be used to vindicate the normativity of logic in the response-guiding sense?

Consider (Wo-), which is one of the least controversial bridge principles:

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<sup>7</sup>(Kolodny, 2007) discusses this account, but argues that it's independently implausible. According to Kolodny, the account shouldn't be accepted "because it is hard to see what can be said, within or to the first-person stand-point of deliberation, for satisfying" the requirements of the purported structure (Part II). I find Kolodny's discussion on this point rushed and not very convincing, but I won't have the space here to say more about this. The crucial point for our purposes is not whether this suggestion is independently plausible, but merely whether it can legitimately be adopted by the proponent of the extrinsic view.

(Wo-) If  $P, Q \models R$ , then you ought to see to it that if you believe  $P$  and  $Q$ , then you don't disbelieve  $R$ .<sup>8,9</sup>

(Wo-) rules out being in a certain doxastic state, namely, the state of believing the premises while disbelieving the conclusion of a valid argument.<sup>10</sup> Let us use the term “inaccurate attitude” to refer to either a belief in a falsehood or a disbelief in a truth. We can, then, observe that the state ruled out by (Wo-) is *guaranteed* to involve an inaccurate attitude, because the possible world in which the state gets everything right (that is, only either believes truths or disbelieves falsehoods) is not even a logical possibility. Thus, someone who believes the premises and disbelieves the conclusion cannot possibly get everything right about the world, *no matter how the world actually is*. And this is something that one can know *a priori* without considering the evidence for any of the claims involved. One might, thus, try to vindicate (Wo-) by suggesting that complying with the norm would lead to avoidance of states that are *guaranteed* to involve an inaccurate attitude.

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<sup>8</sup>(MacFarlane, 2004) ultimately ends up endorsing this principle. For other endorsements of this principle see (Field, 2015), (Beall and Restall, 2006), and (Broome, 2005).

<sup>9</sup>In light of our interest in the response-guiding role of logic, one might be inclined to opt for the “k” variants of the bridge principle, where, in (MacFarlane, 2004)’s terminology, “k” is an attitudinal qualifier that attached to the antecedent of the top-most conditional. Thus, for instance, (Wo-k) reads: If one knows that  $P, Q \models R$ , then you ought to see to it that if you believe  $P$  and  $Q$ , then you don't disbelieve  $R$ . However, I think this is probably a mistake. If, as I suggested in footnote 2, it turns out that we must understand the sense in which the logical principles should be “grasped” in terms of a capacity or know-how, then this qualification would represent a misunderstanding. In any case, I think that since we are talking about the response-guiding role of logic – which, as I've said, necessarily involves a “grasp” of the principles – to add a qualification like this in the content of the principle would be redundant.

<sup>10</sup>Remember that in this usage to “disbelieve” something is to believe its negation.

It would seem, then, that we can get a vindication of (Wo-) if we assume the following principle of rationality:

NO GUARANTEED INACCURATE ATTITUDE (NGIA): One ought not have a state that is guaranteed to involve an inaccurate attitude.

Despite appearances, however, NGIA is too strong as a principle of rationality. For there are familiar contexts in which one can rationally hold attitudes which are guaranteed to be inaccurate. This can happen when the evidence supports attitudes which together are guaranteed to involve inaccuracy. The most famous cases of this phenomenon are the so-called Preface and Lottery Paradoxes.

Let us focus on the Preface. Consider a scientist who does some careful fieldwork and writes a book with her findings, endorsing everything she writes in the book. However, reflecting on her work in the preface of the book, as any responsible scientist would, she admits that at least one of the things that she says in the book is false. Thus, she explicitly endorses the negation of the conjunction of the things that she already endorses in the book. Now, supposing that her endorsements are true expressions of her full beliefs, she is guaranteed to have a false belief. And yet it appears that she isn't doing anything she ought not.<sup>11</sup>

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<sup>11</sup>It is important to note that Bayesian approaches, e.g., (Christensen, 2005), reject this way of describing the case because they hold that the proper attitudes of the scientist are not full beliefs, but degrees of belief; and that these have their own coherence requirements (e.g. the Kolmogorov axioms). According to these approaches, even though the contents of the scientist's beliefs would be contradictory if we took the attitudes to be full beliefs, because the scientist actually only has degrees of belief or credences and these obey the Bayesian axioms, there is no contradiction in the scientist's attitudes. The scientist can perfectly well have high credence in all the propositions while also having a high credence

I think that the Preface is enough to show that NGIA is false. However, we might be able to make an even stronger case for this claim by not building into the Preface situation that the scientist's beliefs are inconsistent. Here is what I have in mind.

Consider a scientific experiment in which the experimenter carefully forms an opinion on a large set of propositions  $s_1, \dots, s_n$ . Given the experimenter's fallibility, even without any knowledge of the experiment, it is almost certain that she will end up with some false beliefs. The experimenter herself is also in a position to realize this, but suppose she doesn't. So, our scientist doesn't explicitly believe contradictory things. Still, even though there is no logical contradiction in her doxastic state, she is *very likely* to have a false belief. Since in this case the state the experimenter is in, namely, that of being fully opinionated about  $s_1, \dots, s_n$ , isn't irrational, she is doing exactly what she should be doing. So in being rational, she is guaranteed to be believing something false, showing that NGIA is not rational, and hence too strong a requirement on rationality. And that in turn undercuts appealing to NGIA to justify (Wo-).

However, one might immediately object that no matter how certain our experimenter's fallibility is, she is not *logically* guaranteed to have a false belief. Thus, according to NGIA, our scientist isn't doing anything wrong by being fully opinionated, and therefore NGIA makes exactly the prediction that we expect.

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in the negation of their conjunction. For my purposes, I won't engage with this view because I share (Kolodny, 2007) and (Easwaran and Fitelson, 2012)'s intuition here that there is a useful notion of full belief that we (ineliminably) take advantage of all the time. To say the least, it seems that we would do well to first exhaust the options as to how we might understand the norms of full belief, before opting for the break that Christensen argues for.

While it is certainly true that there is a difference between something that is logically guaranteed and an inductive generalization from previous cases about human fallibility, it seems plausible that the difference here between the experimenter's situation and the state of someone who violates (Wo-) is one of *degrees*. If that's true, then given NGIA, we would expect that at least in cases where  $n$  is large enough, being fully opinionated would be irrational at least *to some degree*. But this is not what we find. Our experimenter doesn't seem to be irrational in the least. Since on the assumption that NGIA is true we get a different prediction, NGIA must be rejected.<sup>12</sup>

### 3.3.3 No Dominance

This brings us to the second variation on the extrinsic view: Instead of identifying irrational states by appeal to properties of an individual state, try laying down a *comparative* principles of evaluation. The idea is roughly that our principle should be sensitive to which doxastic states an agent has available to her. The point is to make sure that our principle is not blind to cases like our scientist's above in which being in a state that is guaranteed to involve a false belief is the best available option given the circumstances. Thus, whether a state is irrational, according to this suggestion, depends on more than it being guaranteed to involve false beliefs (or true disbeliefs); it depends on whether one can do better by moving to another state. Rationality,

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<sup>12</sup>It is worth noting that the master argument of §3.3.3 works against NGIA as well. See footnote 16.

on this account, minimally requires something like avoiding a state that is guaranteed to be the worse off than some other state one can be in.<sup>13</sup>

Epistemic utility theory gives us the tools to formulate this sketch more precisely.<sup>14</sup> According to epistemic utility theory, we can assign “utilities” or “scores” to the attitudes that we take towards a proposition as a function of whether the proposition is true or false. A utility function ( $eu$ ) maps the truth value of a proposition and the agent’s doxastic attitude toward that proposition (belief, suspension of belief, and disbelief) to one of the three values for getting the facts right ( $R$ ), wrong ( $-W$ ), or neither ( $0$ ):  $eu : \{t, f\} \times \{B, D, S\} \rightarrow \{R, -W, 0\}$ . The function is typically defined such that true beliefs and false disbeliefs<sup>15</sup> (i.e., accurate attitudes) have the same positive value, namely,  $R$ ; suspension of belief gets a value of  $0$  no matter

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<sup>13</sup>One can find this kind of “dominance”-based line of thought in contemporary Bayesian epistemology. The idea can be traced back to (Joyce, 1998). See (Easwaran and Fitelson, 2012) for a survey and application of this thought in the case of full beliefs.

<sup>14</sup>My discussion here is based on (Pettigrew, 2017), which contains numerous references on the current research in the area. See also (Easwaran and Fitelson, 2012).

<sup>15</sup>I use this construction as shorthand for “disbelief in falsehoods”.

what the truth value; and, false beliefs and true disbeliefs (i.e., inaccurate attitudes) have the same disvalue, namely,  $-W$ .

$$\begin{cases} eu(t, B) = eu(f, D) = R \\ eu(t, S) = eu(f, S) = 0 \\ eu(f, B) = eu(t, D) = -W \end{cases}$$

A doxastic state, as before, is a set of doxastic attitudes. Using the above utility function, then, we can define an additive function that simply sums the utilities of all the attitudes in a state to give an overall score for the state. This gives us a precise measure with which to compare doxastic states.

Given this machinery, let's look at a simple example. Suppose  $P$  entails  $Q$ . Looking at the truth table for these two sentences, we have three possible truth assignments, since the second row, i.e., the row that assigns true to  $P$  and false to  $Q$ , is logically impossible. Since there are three possible attitudes of belief, suspension, and disbelief, there are 9 different states one can be in with respect to  $P$  and  $Q$ . Let us focus on the case of the combination that (Wo-) rules out, namely, to believe  $P$  and disbelieve  $Q$ . Call this state  $S$ . We have the following table for the utilities:



P	Q	S
t	t	$R - W$
f	t	$-W - W$
f	f	$-W + R$

Now given two fairly innocuous assumptions we can see why we should see to it that we are not in  $S$  as (Wo-) recommends: First, a weak conservatism about epistemic value:  $R < W$ . This says that the disvalue of getting things wrong outweighs the value of getting things right. Intuitively, weak conservatism errs on the side of avoiding getting things wrong since, according to conservatism, that's more costly than the benefits of getting things right. The second assumption we need in order to vindicate (Wo-) is the following plausible principle of rationality:

NO STRICT DOMINANCE (ND): One ought not to have a state that is strictly dominated by another; where the notion of strict domination is defined as follows: Some state ( $x$ ) is strictly dominated by another ( $x'$ ) if and only if ( $x$ ) is such that one can do better with respect to the scoring system in every logically possible world by having ( $x'$ ).

With the first assumption in place, we can see that the utility assigned to state  $S$  will be negative at every possible world. But that would mean that  $S$  is strictly dominated by the state of suspension of belief on both propositions, no matter what. For this state (call it  $S^*$ ) gets the value of suspension which is always 0 in every possible world. Thus, the agent would be

doing better with respect to the scoring system in every possible world if she suspends her belief in both P and Q. From the second assumption, it follows that S is an irrational state to be in. Thus, we have a vindication of (Wo-): To be in the state that (Wo-) rules out, namely, to believe P and disbelieve Q is to be in a state in which one is *guaranteed* to do worse with respect to the scoring system than some other state.

We thus seem to have a position which the proponent of the extrinsic view can happily occupy. When we deliberate about what to believe or when we try to give constructive advice we must make sure to avoid states that believe the premises of a valid argument and disbelieve the conclusion, because there is some other state one can adopt, regardless of how the world actually is, which gives one a better overall epistemic score. This is a version of the extrinsic view, because the source of the normativity of logic, i.e., that in virtue of which one should heed the advice of logic, lies in the independent normative fact that our doxastic attitudes should maximize weighted accuracy on pain of irrationality. As the proponent of the extrinsic view contends, from this normative fact together with the idea that logic preserves truth, we seem to be able to generate logical demands on what we should and shouldn't believe.

However, there is trouble. First, one might worry that once we move from the single-premise arguments to multipremise ones, it is hard to have any state (i.e., combination of attitudes) that is strictly dominated by another. To see this, consider the state of believing the premises and disbelieving the conclusion. Is this state strictly dominated by another and therefore irrational? The answer is "not necessarily". In cases like Yaya's where there is more than one premise, it's hard to guarantee that in the possible world where both the premises

and the conclusion are true the state of believing the premises and disbelieving the conclusion has a lower utility than the state of total suspension. Whereas in the state of total suspension the agent's score is always zero, in the state of believing the premises and disbelieving the conclusion the agent's score will be a positive number unless the disvalue of disbelieving a truth (getting things wrong ( $W$ )) outweighs the sum of all the values that are had by believing the truths in the premises, that is, the value of believing a truth (getting things right ( $R$ ))  $n$ -times over, where  $n$  represents the number of premises. That means is that we can only have a guarantee that the state of believing the premises and disbelieving the conclusion is strictly dominated if we impose the restriction that  $nR < W$ .

Plausibly, however, this is exactly as things should be. For as we have seen if  $n$  is large enough, as it is by hypothesis in the Preface cases, for instance, then one wouldn't be doing something wrong by believing the premises and disbelieving the conclusion. And for cases like Yalda's when  $n$  is not too large, the kind of conservatism that would give us the correct prediction (i.e.,  $2R < W$  or  $3R < W$ ) doesn't seem very implausible.

There is, however, a serious problem with ND – one that cuts across the suggestions that we've considered and possible modifications that one might be inclined to make.<sup>16</sup> Suppose, for the sake of argument, that we grant the slightly stronger conservatism that  $2R < W$ . According to our utility theoretic machinery, then, one who believes that the key is in one of the two drawers and that it's not in the first while disbelieving that it's in the second seems to

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<sup>16</sup>This worry cuts against NGIA in §3.3.2 as well.

be *guaranteed* to be worse off with respect to the scoring system than someone who suspends judgment in all these propositions, and so, given ND, one would seem to be in an irrational state.

Notice, however – and this is the crux of my argument here – that we get this result only if we restrict our objects of comparative evaluation to states that *are different only with respect to the attitudes they have toward the propositions in the premises and the conclusion of the argument*. But, what could be the motivation behind this restriction? The idea doesn't seem to be a part of the original idea that belief aims at the truth. At best, it seems to be an *ad hoc* addition.

To see that the restriction is necessary, suppose that Yaya correctly sees that the key isn't in the first drawer, but when she goes to check the second, she gets distracted and doesn't see that the key is in the second drawer. Suppose that in this case Yaya is in an irrational state.

Now, if we don't restrict the objects of our comparative evaluation to the states that are different only with respect to the propositions involved in the argument, the given information is not enough to determine whether her state is strictly dominated. For suppose Yaya's true belief that the key is in either of the two drawers leads her to have many accurate attitudes. For instance, she might be led to accurately believe that her informant is reliable or that the key is somewhere in the vicinity. Suppose she ends up with  $m$  accurate attitudes in addition to her two beliefs in the premises such that  $(m + 2)R > W$ . Call this state  $S'$ . In this case, her belief state,  $S'$  is not strictly dominated and ND would not predict, as we would expect, that her belief state is nevertheless irrational. While by supposition the disvalue of disbelieving the

true conclusion outweighs the accurate belief in all the true premises, the additional accurate attitudes tip the scales toward a positive value.

It's not clear what the rationale might be for this restriction. If the point of epistemic rationality is truth, then why restrict the objects of evaluation to our attitudes toward any particular set of propositions? In particular, what could be the rationale for restricting the objects of evaluation to sets of our attitudes towards the propositions involved in a formal argument?<sup>17</sup>

One might object that  $S'$  is itself strictly dominated by another state, namely,  $S''$ : the state in which Yaya forms all the extra  $m$  accurate attitudes in  $S'$  but suspends judgment in the propositions in the argument. Thus, while it is true that  $S'$  isn't strictly dominated by the state of suspension on the propositions involved in the argument, there is still a state, namely,  $S''$ , in which Yaya would do better with respect to the scoring system in every possible world. According to this line of objection, then, our utility theoretic machinery does after all make the correct prediction in this case.<sup>18</sup>

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<sup>17</sup>And it won't help to say that the relevant propositions are those which are supported by the evidence, since evidence doesn't support propositions locally: my evidence that there's a canary on the tree outside of my window may also be evidence that, for instance, there is an animal outside of my window. What could be the rationale for not taking our attitudes towards that proposition into account when evaluating my belief state for rationality?

<sup>18</sup>Another way to push this worry is by saying that instead of restricting the objects of comparative evaluation, what the DOMINANCE-based view needs is the right kind of *quantification*. In particular, the thought is that a state is strictly dominated not merely if there is a state that is different from the original only with respect to the propositions involved in the argument and scores better in every possible world; rather a state is strictly dominated, according to this suggestion, if there is *some* state that does better than the original in every possible world.

This objection, however, only serves to highlight the problem. For, to assume that  $S''$ , i.e., the state that is exactly like  $S'$  but suspends judgment in the propositions in the argument, is available for evaluation of  $S'$  is effectively to assume that we must evaluate  $S'$  only with respect to the propositions involved in the argument. After all, by stipulating that  $S''$  is exactly like  $S'$  with respect to the additional  $m$  attitudes, one would be ignoring any contribution they might have in the evaluation of  $S'$  by comparing it to  $S''$ .

Once we appreciate this point, we can see that another way of pushing the question that I have been raising all along is this: what could be said for thinking that a state like  $S''$  is always available as a point of contrast for any state? As should be clear by now, I don't think there is a *non-ad hoc* answer to this question.

To see that a  $S''$ -like state is not always available, consider Yaya's belief that the key is in either of the two drawers. As I originally described the case, Yaya comes to have this belief through the testimony of a trusted friend. But now note that if Yaya has the testimony and yet suspends judgment in whether the key is in either of the two drawers, then there would have to be other beliefs of hers that need to be adjusted: for instance, her belief that her friend's testimony is sufficiently strong probably has to change. And this is true of just about any belief that Yaya might have: For any belief, there are some beliefs that the agent would not have if she suspends judgment in the belief.<sup>19</sup> If this is true, then the state in which Yaya suspends

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<sup>19</sup>The situation may be even worse, as arguably, for any belief, we might be able to *identify* certain beliefs that one cannot have unless one holds the belief. Suppose that propositional attitudes are "transparent", that is, one cannot have a second-order belief that one has a given propositional attitude unless one actually has the attitude in question. In that case, for any belief, the second-order belief that one

judgment in the propositions involved in the argument cannot be *exactly* like the state in which she believes the premises and disbelieves the conclusion. Thus,  $S''$  isn't available as a comparative reference point to evaluate  $S'$  with. More generally, we can say that it is not true that for any state  $X$  that an agent may be in there is a state available to the agent which is exactly like  $X$  only different with respect to some arbitrary subset of the attitudes in  $X$ .

ND, then, cannot vindicate (Wo-), because it doesn't give us the resources to rule out every state that is ruled out by (Wo-). Thus, like its cruder counterpart, NGIA, ND must be rejected. While in the former case, the problem is that the principle is simply false, in the case of ND the problem is that it isn't substantive enough to vindicate a wide-scope bridge principle.

I said that my argument is meant to provide a recipe against any extrinsic view which (I) admits of the response-guiding role of logic, and (II) adopts a bridge principle which lays out global wide-scope restrictions on doxastic states. We are now in a position to see how this recipe works. Because of the extrinsic view's commitment to locating the source of the normativity of logic in some normative features of belief such as the aim of truth, in order to rule out some state, the view has to identify a scoring system which designates the state as "bad" based on the state's relation to truth and falsity. However, unless one is willing to admit *ad hoc* restrictions on what can count as a state, it seems that for *any* combination of attitudes the state comprising them can do well with respect to the scoring system and thus not be designated as "bad". Thus, the extrinsic view is incapable of ruling out exactly those

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believes that belief is a feature of one's state that cannot survive suspending judgment on the first-order belief.

states that are ruled out by a wide-scope bridge principle and thus cannot serve to vindicate it.<sup>20</sup>

Where does this leave us with respect to the possibility of an extrinsic account of the normativity of logic? I think that the proponent of the extrinsic view is in a real bind. Before I conclude, however, allow me to briefly consider the influential alternative variation along extrinsic lines due to (Kolodny, 2007), which seeks to salvage the extrinsic view by giving up (II).

### 3.3.4 Evidentialism?

So far the kind of extrinsic view that I have considered aims to vindicate a principle that aims to minimally rule out a doxastic state by drawing on its global features and what belief aims at. However, one might reasonably wonder if there is room for a version of the extrinsic view that doesn't rely on global features of doxastic states to vindicate its preferred bridge principle.

The so-called "narrow-scope" bridge principles seem to fit the bill. For instance, consider the following:

If  $P \models Q$ , then if you have sufficient reason to believe  $P$ , then you ought to believe  $Q$ .<sup>21</sup>

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<sup>20</sup>In fact, my argument shows more than just that ND cannot vindicate a wide-scope bridge principle. ND has trouble vindicating *any* coherence requirement on belief (in the response-guiding sense, of course) – whether *deductive* like (Wo-) or otherwise. Thus, my argument serves as a challenge against (Easwaran and Fitelson, 2012)'s ND-based alternative to *deductive* coherence requirements.

<sup>21</sup>This is (Kolodny, 2007)'s (r<sub>1</sub>). It corresponds roughly to (MacFarlane, 2004)'s (Br+).



This principle doesn't directly rule out the state of believing P and disbelieving Q. For in order to satisfy the principle it wouldn't be enough for someone who disbelieves Q to simply stop believing P when one has sufficient reason for it. The above principle makes a much more restricted recommendation in this case: namely, to see if you have sufficient reason for P and if so to likewise believe Q.

([Kolodny, 2007](#)) has recently attempted to defend the extrinsic view by switching focus to a narrow-scope understanding of the normativity of logic. Kolodny puts forward an influential, and about the only explicit, treatment of the question of the source of the normativity of logic which I know about in the literature. According to Kolodny's "evidentialist" view, logic doesn't have any direct role in structuring our beliefs. In fact, according to Kolodny, there are no coherence requirements for full beliefs whatsoever. Instead, on this view, logic "structures" evidence, and because beliefs aims at acquiring truth and avoiding falsehood *in light of the evidence*, this gives logic an indirect role in setting norms for belief. Here's Kolodny:

Logic governs belief indirectly, by structuring epistemic reason, which in turn directly governs belief. On this view, logic, so to speak, informs epistemic reason of possible patterns of truth and falsity. Epistemic reason takes these patterns into account in determining how best to pursue the aims of acquiring truth and avoiding falsity in light of the evidence (254)<sup>22</sup>

Kolodny nicely explains why one shouldn't hold P and  $\neg P$  without appealing to a wide-scope principle like (Wo-). His thought is this: First, it seems true that if one has sufficient evidence for P, then one cannot have equal or stronger evidence that  $\neg P$ . This is the contribu-

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<sup>22</sup>As Kolodny points out, his use of the notion of evidence is broader than usual. We need not get into these complications here.

tion that logic makes to, in his words, “structure” evidence. But because there is reason for one to believe  $P$  only if the evidence indicates it, Kolodny argues, it follows that in any given case one cannot have sufficient reason to believe both  $P$  and  $\neg P$ . And thus given that one shouldn’t believe what one doesn’t have sufficient reason for, it follows that in any given case either one shouldn’t believe  $P$  or one shouldn’t believe  $\neg P$ .

Kolodny likewise does a good job of explaining why for single-premise arguments one shouldn’t believe the premise,  $P$ , and believe the negation of the conclusion,  $\neg Q$ , when  $P \models Q$ . For, according to this account, the logical relation between  $P$  and  $Q$  lays out a constrain on the evidence: namely, that the evidence that  $Q$  is at least as strong as the evidence that  $P$ . As before, since there is reason to believe something only if there is evidence for it, it seems to follow that in any given case one cannot have sufficient reason for both  $P$  and  $\neg Q$ . So, in any given case one who believes  $P$  and  $\neg Q$  believes something for which one doesn’t have sufficient reason, and therefore (on the assumption that one shouldn’t believe what one doesn’t have sufficient reason for) believes something that one shouldn’t.

In addition, Kolodny can easily handle the Preface cases by simply accepting that accumulated evidence can come into conflict in the way that they do in the Preface cases. Thus, according to Kolodny, there are no general constraints that multi-premise entailments place on the evidence (253). Accordingly, he doesn’t think that the normativity of logic extends to the cases which involve many-premise arguments such as the Preface case.<sup>23</sup>

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<sup>23</sup> Although he doesn’t make this point explicitly, I see no reason why he should be equally skeptical of two-premises case like that of Yalda’s. Where we should draw the line between cases in which logic

For all its merits, however, as Kolodny himself admits, his view has a serious flaw. The problem is that it fails to explain why avoiding inconsistency seems to be an achievement in its own right even if at the cost of going against the evidence. Consider, for instance, a variation on Yaya's case in which Yaya looks in the first drawer but because the key is in a shape that she doesn't expect, she fails to notice the key in front of her in the drawer. She goes on, as in the original case, to infer that the key is in the second drawer. Despite her error, her holding a consistent belief appears to be an accomplishment (something good). The question is why is this an achievement?

In this case, even though Yaya believes something against the evidence, it seems that she's doing something right, namely, having attitudes that are not mutually inconsistent. But the above account seems incapable of explaining this. According to the above account, since Yaya lacks sufficient evidence to believe that the key isn't in the first drawer (because she has sufficient evidence that it *is* in the first drawer), she is doing something wrong. And that is the end of the story.

We can see this if we consider the case in which not only does Yaya believe that the key isn't in the first drawer, but she also ends up believing that the key isn't in the second drawer either (while believing that the key is in either of the two drawers). According to Kolodny's account, Yaya's situation in this case is no different from the first case in which she manages

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does and doesn't play a normative role on this view may be a context-dependent issue for which we cannot give general principles in abstraction from the details of the case.

to avoid inconsistent beliefs. As Kolodny admits, this is a direct consequence of his preference for a narrow-scope principle.

Kolodny is well aware of this consequence of his view and seeks to remedy it by offering an *error theory* about why in cases like Yaya it might seem as if the agent is doing something right. In other words, Kolodny is forced to reject a pretty robust intuition about the role that logic plays in our cognitive lives, as a consequence of his other philosophical views.

Fortunately, for our purposes, we can set aside the details of Kolodny's error theory. Instead, it is worthwhile to look at the argumentative strategy that leads Kolodny to this consequence. Although Kolodny's reasons are different and much less developed than mine, he is in broad agreement with the upshot I drew in the previous section: that an extrinsic view that seeks to defend a bridge principle like (Wo-) is not going to work. Because Kolodny works within the confines of the extrinsic view,<sup>24</sup> this leads him to his evidential account. He takes great pains to defend this view, and, as we saw above, he ultimately has to take recourse in an error theory in order to explain all the phenomena.

In contrast, however, I think that the cost of the error theory should give us pause. While I agree with Kolodny that *if* we must operate within the confines of the extrinsic view, then we do well to accept his error theory, I disagree with Kolodny that the extrinsic view is our only option. In other words, since the possibility of what we might in contrast to the extrinsic view call an "intrinsic view" of the normativity of logic is open, failure of the most explanatorily

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<sup>24</sup>Of course, in addition, he wants to resist the move to the degrees of belief as the Bayesian accounts do. See fn. 11.

powerful version of the extrinsic view is no reason to opt for a weaker account that takes recourse, even in part, in an error theory.

What would this alternative look like? Here is the rough sketch in a nutshell: Logic, according to the intrinsic view, is itself a normative enterprise in the sense that it is essentially in the business of (formally) laying out the norms that govern belief and reasoning. We might say that logic lays out the *constitutive* norms of belief and reasoning. It's worth noting that if we succeed in offering a viable intrinsic account of logic, we need not appeal to some independent doxastic norm like the truth norm – as on the extrinsic view – to vindicate the logical norms. For since on this account logic is itself a normative enterprise, to give an account of logic is a *fortiori* to give an account of the source of the normativity of logic, too.

To be fair, Kolodny does consider the possibility of the intrinsic view. After dismissing the idea that we might be able to vindicate a norm like (Wo-),<sup>25</sup> he offers the following new tack: “For an attitude to be belief just is (in part) for it to satisfy [(Wo-)]”. He then proceeds to dismiss this view in one sentence: “This would not support, and may even be incompatible with, the normative claim that beliefs *ought* to satisfy [(Wo-)]” (240).

I think that depending on how one understands the constitutive view, there can be satisfactory answers to both of these charges. First, what exactly does Kolodny have in mind when he says that the constitutive account doesn't support (Wo-)? Here's a plausible suggestion:

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<sup>25</sup>Actually, his working norm is something much simpler: “Noncontradiction (N): One is rationally required (if at t one believes p, then at t one does not believe not-p)”. In the following I replace (N) with (Wo-) for ease of presentation. However, nothing hangs on the difference here.

Even if we agree that (Wo-) is somehow constitutive of belief, this doesn't show that we ought to have *beliefs*. Plausibly one's state ought to satisfy the constitutive norms of belief only if we have at least some reason to have beliefs. However, that some norm, say, (Wo-), is constitutive of belief doesn't provide any reason to have a belief. On this interpretation, Kolodny's thought is that if we can opt out of having belief and instead have, say, *schmeliefs*, which have a different constitutive norm, then just because (Wo-) is the constitutive norm of belief that doesn't mean that (Wo-) is true. But this can't be a knock down argument, as one might plausibly argue that having beliefs is *inescapable*.<sup>26</sup>

Second, why does Kolodny think that the above claim might be incompatible with the normative claim that beliefs *ought* to satisfy (Wo-)? Here Kolodny seems to voice the familiar worry that constitutivism and normativity are incompatible. On the one hand, if one ought to satisfy (Wo-), then it would seem that one can fail to satisfy it. On the other, if (Wo-) is constitutive of belief, it would seem that one cannot have a belief without satisfying (Wo-). But, again, there may be perfectly satisfactory answers here, which make it impossible to assess Kolodny's claim without further discussion.<sup>27</sup>

In short, while Kolodny does consider the possibility of an intrinsic account of the normativity of logic, he simply fails to take it seriously. This failure leads him to spend an impressive amount of effort to salvage the extrinsic view. However, given that these efforts lead Kolodny

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<sup>26</sup>See, for instance, ([Ferrero, 2009](#)) for a treatment of this kind of worry against constitutive accounts.

<sup>27</sup>See, for instance, ([Railton, 2003](#)).

to deny some of the intuitive phenomena that we would want to explain in our account, this gives us good reason to go back and explore the intrinsic option with more care.

### 3.4 Conclusion and The Path Forward

In this chapter, I set out to reject a certain account of the source of the normativity of logic. According to what I labeled the extrinsic view, logic is understood independently of our reasoning practices and yet it has normative implications for our thought and reasoning. The normative implications of logic, on this view, are on a par with the natural sciences. That is, according to this view, it is in so far as we want to have true beliefs that we ought to reason according to the laws of logic. My argument against the extrinsic view focused on a certain aspect of the normative role that logic plays for us, which I label the response-guiding role of logic. I tried to show that the idea that logic could play this normative role is something that the extrinsic view cannot make sense of.

This, of course, brings us back to square one. But I don't think that this should be cause for despair as we have a lead to pursue: explore the possibility of understanding logic as something that is about correct reasoning and *intrinsically* normative. If we can make sense of the idea that logic is normative in virtue of being a kind of science of good reasoning, then we might just have a satisfactory account of the normativity of logic. We might pursue this line by offering a partial analysis of the notion of validity in terms of the correct bridge principles that MacFarlane and others are at pains to articulate. Thus, on this account what it is for an argument to be valid is partially for there to be a constraint on belief, for instance, that one not believe the premises and disbelieve the conclusion. While I cannot argue the point in

detail here, I am skeptical of the prospects of this account as I don't think even something as relatively uncontroversial as Modus Ponens can give us a universal constraint on belief.<sup>28</sup>

Another option, which I find much more plausible, and is arguably much better positioned to respond to the challenges that one might raise against the intrinsic view, is to think of logical validity and related concepts as devices that allow us to talk about and codify things that we do in practice when we deliberate about what to believe. Built into this option is the idea that one might adopt different ways of codifying our practices for different purposes and thus adopting this view leaves open the option of logical pluralism. According to the version of this view which I favor, the normativity of logic(s) is grounded in attitude-dependent facts about experts who design and codify logics for specific purposes. Thus, the view can be seen as a kind of *constructivism* about logic.<sup>29</sup>

In the second part of the dissertation, my aim is to do just that. Over the course of the next two chapters, I argue that belief is best understood as a *normative standing*, which one acquires by exercising one's rational capacities. I argue that logic is best understood as the enterprise which helps to make explicit normative commitments which are involved in any exercise of our discursive capacities. This explicative account of logic, I argue, opens up the conceptual space for a pluralism about logic according to which there is more than one correct logic,

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<sup>28</sup>I say relatively, because there is controversy. See ([McGee, 1985](#)) for a famous example about the universal applicability of Modus Ponens.

<sup>29</sup>Compare constructivism in metaethics. See ([Street, 2010](#)) for an overview.



coupled with the idea that logic plays its normative role in virtue of laying out the constitutive norms of belief.

## CHAPTER 4

### A PRAGMATIC CONSTITUTIVIST PROPOSAL

#### 4.1 Introduction

In the previous chapter (3), I argued that the extrinsic view is untenable. Recall that on the extrinsic view logic is to be understood as independent of our beliefs and the norms that govern them. I observed that despite this independence, the extrinsic view need not deny that logic has important normative implications for belief. It can hold that the normative import of logic is grounded in some doxastic norm of belief, typically one that's encapsulated in the slogan, "belief aims at the truth" (i.e., the truth norm). The basic idea, as we saw, is that the truth norm together with facts about truth preservation which, according to the extrinsic view, logic is in the business of laying out, imply norms which one ought to follow. On this view, then, one ought to follow these norms only in so far as one has the aim of truth.

My main argument against the extrinsic view was roughly that the view cannot explain why one should abide by the logical coherence norms<sup>1</sup> from the basic idea that belief aims at the truth. Even on the most nuanced versions of this view, I argued, there are just not enough

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<sup>1</sup>Recall that "coherence norms" are those which essentially refer to logical facts and lay out global properties of doxastic states which are not reducible to properties of individual attitudes. My working example of a coherence norm has been (Wo-). For more on the idea of coherence norms see chapter 3. As I shall make clear in §4.2, strictly speaking, (Wo-) is not itself a logical norm in the sense I am using the term here. It is rather a bridge principle connecting logic, on the one hand, to norms governing belief, on the other. However, assuming that (Wo-) is the correct bridge principle, and given a fixed logic such as Classical logic, (Wo-) implies doxastic norms which can be legitimately labeled as "logical".

resources to explain why one should *ever* avoid inconsistent beliefs. Furthermore, I showed that giving up on the idea of coherence norms *à la* (Kolodny, 2007) will only be a viable option if we also accept certain implausible consequences.

Now, one might take this as a confirmation of (Harman, 1986)'s skeptical conclusion about the normativity of logic. Indeed, in so far as the extrinsic view enjoys the status of the default view on this question, our result should raise doubts about the very possibility of our making any sense of the attractive idea that logic is normative for belief. However, my argument is meant in a more constructive spirit. I think that if we are led to the skeptical conclusion, that is because of an unwarranted assumption that the extrinsic view is the only available option when it comes to accounting for the normativity of logic. In this chapter, my aim is to provide a basis for an alternative account which would salvage the idea that logic can be viewed as having normative import for belief and reasoning.

In contrast to the extrinsic view, my proposal can be described as *intrinsic*: Logic, on this account, is itself a normative enterprise in the sense that it is essentially in the business of laying out (formally – in some sense of formal to be clarified) the coherence norms that govern belief. The idea behind the intrinsic view is that in the order of explanation, our doxastic practices come first and it is in relation to these practices that we should understand logic. If we succeed in offering a viable intrinsic account of logic, we need not appeal to some independent doxastic norm(s) like the truth norm – as on the extrinsic view – to vindicate, say, (Wo-). For since on this account logic is itself the science of the norms of belief, to give such an account is *a fortiori* to give an account of the source of the normativity of logic, too.

It's important to realize that even if we have an account of the source of the normativity of logic, however, we still need to distinguish formal logic, as the familiar theory that is decidedly not formulated in normative terms, from the doxastic coherence norms that govern belief and reasoning. What the intrinsic view needs is a robust understanding of formal logic as an *explication* of these norms. Accordingly, we can distinguish two tasks that a defender of the intrinsic view must face:

1. An account of the source of the normativity of the doxastic coherence norms.
2. An account of the sense in which *logic* can be said to explicate these doxastic norms.

My focus in this chapter will be on the first task. In order to do that, I will assume that the second task can be satisfactorily completed and that we have a grip on the idea of what it is for a doxastic norm to be *logical*. In other words, I will assume that we have an account of how logic explicates certain doxastic norms which we can then legitimately label as “logical norms”.<sup>2</sup> My question is this: Having dismissed the extrinsic view, what can the defendant of the intrinsic view say on the question of the source of the normativity of logic? By way of getting clear on exactly what this question is asking, allow me to compare the situation here with how I framed the discussion on the source of the normativity of logic for the extrinsic view in the previous chapter.

On the extrinsic view, because logic is understood as independent from the norms governing belief, it seems natural to try to ground a logical norm like (Wo-) on other more funda-

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<sup>2</sup>I will have more to say about “logical norms” in §4.3. I will pick up the second task in the next chapter (5).

mental doxastic norm(s) like the truth norm. As we have seen, the status of the truth norm (or whatever doxastic norm(s)) that one might appeal to in grounding the logical norms is beside the point for the extrinsic view. Whether one is, say, a constructivist or a natural reductionist or a platonic realist about the grounding of the truth norm, the question for the extrinsic view is the same: can one trace the normativity of logical norms to the more fundamental truth norm? Accordingly, in the previous chapter, I bracketed all discussion of the meta-normative status of the fundamental doxastic norm(s) that the extrinsic view assumes.

The situation now with the intrinsic view is radically different. Since the intrinsic view gives up on the idea of tracing the normative status of logical norms to other doxastic norms, and seeks to give logical norms (i.e., norms that logic explicates) a fundamental meta-normative status in their own right, we cannot simply bracket the meta-normative discussion. We must decide how it is that logical norms have the normative status that they appear to have and in so doing we cannot (on pain of giving up on the intrinsic view) appeal to some other more fundamental norm(s). The task of this chapter is to offer an account of the normative status of the logical norms without appeal to some other doxastic norms whose status is assumed. If I succeed, then together with a clear understanding of how *logic* could be responsible for *explicating* these norms (i.e., the second task for the intrinsic view, and the topic of next chapter), we can claim to have formulated an alternative account of the source of the normativity of logic.

The plan in this chapter is as follows. In §4.2, I begin by further elaborating on the idea of “logical norms”. In §4.3, I offer a rough sketch of a “constitutive” account according to which

theses logical norms are in some rough sense essentially involved in belief and more generally in exercises of doxastic agency. However, even on this rough sketch, the account faces some serious *prima facie* challenges – challenges which if we can get clear on and properly respond to, can greatly help to fill in the details of the sketch. In particular, because on the constitutive account the logical norms are said to “constitute” what belief is, it is natural to think that the account rules out the possibility of making logical *errors*. What’s more, it might appear as if there is no room for alternative logics since on the intrinsic view an alternative logic would imply alternative logical norms and that seems to fly in the face of the idea that the norms are constitutively involved in belief and doxastic agency.

In the hope of putting some flesh on the bare-bones of the constitutive account, I take on the task of responding to these challenges in the remaining parts of the chapter. I argue that while the constitutive account can make room for a certain kind of error, namely, what I will label “error from obstruction”, it indeed rules out the possibility of radical departures from the logical norms. I label the latter “error from skepticism”. These will be the topics of §4.4.1 and 4.4.2 respectively. In §4.5, I turn to the worry about alternative logics. I argue that the impossibility of error from skepticism should not be taken to mean that there is no room for alternative logics. My contention is this: even if accepting *some* particular logical norms is never up for grabs – since that’s a necessary condition of counting as a believer – there is nevertheless no reason to think that any particular set of logical norms has a privileged status over the other conceptions. In other words, there is no reason to think that our logico-epistemological endeavors in the field of logic should take us in any particular direction even

though there is no room for a wholesale rejection of the logical norms. I end with some remarks on logical pluralism and suggest that it fits well with the view on offer. This will provide the groundwork for our more detailed treatment of the second of the two tasks for the intrinsic view in the next chapter.

## 4.2 Logical Norms

Let me begin by saying a few words about what I mean by “logical norms”. I’ve already said that logical norms are those that logic – in some sense to be clarified – explicates. To get a more concrete idea of what I have in mind, consider a bridge principle like (Wo-):

(Wo-) If  $P, Q \models R$ , then you ought to see to it that if you believe  $P$  and  $Q$ , then you don’t disbelieve  $R$ .<sup>3</sup>

Note that this is a “wide-scope” principle in that the normative operator “ought” takes scope over the conditional that follows it. Thus, the norm rules out a combination of attitudes: believing the premises and disbelieving the conclusion of a valid argument. I’ve used the label “coherence norm” to capture this feature. When it comes to the normativity of logic, wide-scope or coherence norms seems to be what we need. The basic reason goes back to ([Harman, 1986](#))’s observation that if the conclusion of one’s argument is obviously false or absurd, then it could very well be that one *ought* to revise one’s belief in one of one’s premises rather than believe the conclusion anyway. We encountered a more detailed discussion of this issue in the previous chapter: We saw that giving up on coherence norms altogether, as, for instance,

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<sup>3</sup>Borrowed from ([MacFarlane, 2004](#)).

([Kolodny, 2007](#)) does, leads to the unattractive result that we couldn't explain why there is anything good in keeping a coherent state even if one has beliefs that go against the evidence.

Note further that the principle as a whole takes the shape of a conditional whose antecedent is a claim about logical validity. That is, the principle lays out a normative claim about what (not) to believe, the *sufficient* condition of which is a claim about logical validity.

Because of this latter feature, one might be inclined to think that the principle presumes an independent understanding of validity, and that the normative claim in the consequent depends for its truth on the logical claim in the antecedent (which would presumably be understood in non-normative terms). This would be to assume that the very formulation of the principle presumes the extrinsic view.

In fact, however, the principle is neutral with respect to the extrinsic-intrinsic divide. Part of the idea behind the intrinsic view is that in the order of justification, our inferential practices come first and it is in relation to these practices that we should understand logic. That's consistent with the idea that in everyday cases, logic takes priority as we appeal to it in order to evaluate and conduct our inferential practices (implicitly or explicitly). That is, the intrinsic view, too, has room for a principle like (Wo-) which serves to connect logic, on the one hand, and normative claims about our inferential practices, on the other.

To see this more clearly, we can think of a principle like (Wo-) as doing double duty for the intrinsic view. On the one hand, it plays the role of spelling out the normative import of logic for our inferential practices. But, in addition, it also plays the more fundamental role



of *partially fixing what logical validity is*: An argument  $P, Q \models R$  is logically valid, according to (Wo-) only if one ought to see to it that if one believes  $P$  and  $Q$ , then one doesn't disbelieve  $R$ .

To be sure, in order for the intrinsic view to fix a logic, it needs more than just what this partial definition says. In particular, it needs a way of demarcating which practices are relevant for logical validity. For, in the absence of such demarcation, the claim in (Wo-) leaves logic radically under-determined.

Treatment of the demarcation question belongs to the second of the two tasks which I identified for the intrinsic view. As such, I will leave it for next chapter. Just to give you sense of the debate, however, allow me to make some general comments.

Consider, for instance, the inference from 'it is raining' to 'the streets are wet'. Even if it is indeed true that one ought to see to it that if one believes the former, then one doesn't disbelieve the latter, we don't want the inference to figure in our account of *logical* validity. After all, the argument from 'it is raining' to 'the streets are wet' is not logically valid.<sup>4</sup> Thus, we need further conditions that would demarcate those inferential practices which are from those which are not relevant to our account of logical validity.

Clearly, to offer such demarcation, a proponent of the intrinsic view cannot appeal to an independent understanding of logic. For, according to the intrinsic view, there is no such independent understanding of logic.

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<sup>4</sup>Following (Sellars, 1953), one might distinguish between *formal* and *material* validity. In that case the argument from 'it is raining' to 'the streets are wet' would be valid – although not *formally* valid. Given this distinction, the point of this paragraph can be put by noting that in order for the distinction to get any traction we need clear criteria of 'formality'. This is the notorious question of demarcation of logic which Sellars is arguably grappling with (see (Brandom, 2014)).

There are, however, other options available to the proponent of the intrinsic view. For instance, one might propose to keep fixed a set of terms and define logical norms as those which preserve their normative status under arbitrary substitution of any terms other than the fixed set. In contrast to the classical notion of “substitution invariance”, we might call this method of demarcating logical norms *pragmatic substitution invariance*.<sup>5</sup> So, for instance, if one takes ‘and’ as fixed (as a logical constant), then the following norm would seem to count as a logical norm: one ought to see to it that if one believes ‘the sky is blue and the grass is green’, then one ought not to disbelieve that ‘the sky is blue’. For the norms seems to preserve its status no matter what we substitute for the terms in either side of ‘and’. On the other hand, consider the norm that one ought to see to it that if one believes that ‘it is raining’, then one doesn’t disbelieve that ‘the streets are wet’. Keeping the (implicit) logical terms fixed, we can easily turn this into a ‘bad’ norm by substituting arbitrary terms in for the various terms in the premise or the conclusion. The pragmatic substitution invariance, therefore, seems to correctly predict that this is not a logical norm and that therefore a valid argument cannot be extracted from it.

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<sup>5</sup>The idea of *substitution invariance* goes back to (Tarski and Corcoran, 1986). See also (Quine, 1986) and (Putnam, 1972). Needless to say, Tarski et al. do not use the idea of substitution invariance to demarcate the *norms* which fix the logic; they rather use it in tandem with the truth preservational account to demarcate (formal) logic itself. Thus, we can say that an argument is valid just in case it is impossible for the premises to be true and the conclusion to be false under substitution of any non-logical terms. I’m using this general idea, however, here to suggest a way of demarcating the logical norms which only appeals to our inferential practices and not the idea of truth preservation. That is why I’ve called my adoption of this idea *Pragmatic substitution invariance*. See (Brandom, 2010) for a similar suggestion.

There is, no doubt, much more to say on this issue. One immediate problem, for instance, is the following: what criteria could there be for the choice of the ‘fixed’ terms, if we don’t have recourse to some independent understanding of logicality?<sup>6</sup> As I said before, I will come back to this issue in the next chapter. However, fortunately for our purposes we need not settle the matter here. For the question now is this: “what is the source of the normativity of logical norms – whatever their contents turn out to be?”

To fix ideas, then, let us assume for the sake of our discussion that (Wo-) is an accurate bridge principle. Let us, moreover, assume Classical Logic so that together with (Wo-) we have a concrete idea of what the logical norms governing belief might be. We can thus speak loosely of (Wo-) itself as a “logical norm” in the following derivative sense: under our two assumptions, namely, (1) that (Wo-) is an accurate principle; and (2) that Classical Logic is correct, it implies the norms which govern belief and which formal logic can in some as-of-yet unspecified sense “explicate”. Accordingly, in what follows I will say things like “the agent deviates from (Wo-)” as if (Wo-) itself is a norm, whereas strictly speaking it’s a bridge principle connecting logic to the doxastic norms governing belief and reasoning. My argument in what follows doesn’t depend on either of these assumptions. My conclusion holds quite generally regardless of what the correct bridge principle(s) and logic(s) turn out to be.

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<sup>6</sup>See ([MacFarlane, 2015](#)) for a survey of views on the choice of logical constants.

### 4.3 Constitutivism about Logical Norms

With these preliminary points out of the way, let us turn to our main discussion. Suppose a friend of yours, Yalda, deviates from (Wo-) by believing the premises of a valid argument, while disbelieving the conclusion. For instance, suppose she believes that it is not the case that you haven't left the room and yet also believes that you are still in the room with her. Thus, taking "you've left the room" to be  $A$  and "you are still in the room" to be the negation of "you've left the room", Yalda both believes  $\neg\neg A$  and disbelieves  $A$ . Yalda thus deviates from (Wo-).<sup>7</sup> You may want to tell Yalda that she is doing something wrong – that she is deviating from a logical norm. But why should she heed your advice? What, in other words, if anything, is the *source* of the normativity of logic? This is what I've been calling the "source question".

Having dismissed the extrinsic answer in the previous chapter, what could be said in answer to the source question? An attractive alternative, one that will be my focus throughout the remainder of the dissertation, is that Yalda is deviating from a norm that partly 'constitutes' what it is to believe something.<sup>8</sup> The basic idea is that the very activity she is engaged in, namely, the activity of believing, involves following certain norms and that Yalda has somehow failed to do that successfully.

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<sup>7</sup>Recall that we are assuming Classical Logic according to which double negation elimination is a valid schema.

<sup>8</sup>There's a large literature on constitutivism in metaethics. Some of the representative proponents are (Korsgaard, 2008), (Korsgaard, 1996), (Rosati, 2003), (Velleman, 2000), (Katsafanas, 2013), and others. For critical discussion see (Enoch, 2006) and (Ferrero, 2009).

The example of artifacts is often used to illustrate this idea. Consider, for instance, a toaster. Arguably toasting bread is the constitutive function of a toaster: what it is to be a toaster is just to be something that realizes the function of toasting bread. Given this understanding of toasters, we seem to get a clear evaluative dimension for toasters: if something realizes the function of toasters, but fails to toast bread, then it is a *defective* specimen of the kind. Now, arguably, not every toaster which fails to toast bread should be deemed defective, but there may be fixes for this. The basic idea, however, is that in cases in which a toaster is defective what allows one to say this – that is, the *source* of the normative judgment – is nothing but the constitutive function of the toaster.<sup>9</sup>

For another example, consider the game of chess.<sup>10</sup> Arguably there are certain norms that constitute playing the game of chess. For instance, that one should aim to mate one's opponent, or perhaps that one should move one's rook only in vertical or horizontal directions. As in the case of toasters, this seems to get us a clear view of an evaluative dimension: if one plays chess by following the norms that constitute being engaged in the activity of chess-playing, and yet fails to conform to these norms in a particular instance or instances, then one is making a mistake. For instance, if while playing chess I move my rook diagonally, I can

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<sup>9</sup>This kind of example is often used to motivate the so-called natural reductionist versions of constitutivism. For example, see (Thomson, 2008). For critical discussion, see (Wallace, 2011).

<sup>10</sup>The example of games is as old as the constitutive conception of rules. See (Rawls, 1955). See also (Searle, 1969).

be said to make a “mistake” because what I do doesn’t conform to the constitutive rules of chess-playing.

The example of games is particularly illuminating because it illustrates the innocuousness of conceiving of certain norms as being constitutive of *engaging* in some activity or practice. Whereas in the case of artifacts, my characterization of the constitutive account was in terms of certain functions that are supposed to be constitutive of a kind or species, now with the game example we see a slightly different idea: that some norm is constitutive of being party to some activity or practice in the sense that *following* the norm is (partly) what engaging in the activity or practice amount to.<sup>11</sup> While focusing on artifacts like toasters helps to bring the constitutive model into view, the example of games suggests a much broader application which extends to rational behaviors and activities.

The constitutive answer to our question, following the previous two examples, is that Yalda is making a mistake because what she does doesn’t conform to some rule or norm that is constitutive of the activity she is engaged in, namely, that of believing. Yalda is a believer in virtue of following the norms which are partly constitutive of believing (or the “believing

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<sup>11</sup>([Brandom, 2013](#)) helpfully coins the phrase “normative functionalism” to refer to the latter. According to Brandom, these two examples illustrate two different kinds of functionalism: dispositional and normative. In normative functionalism, according to Brandom, “the roles ... are to be specified in a normative vocabulary of what would commit or entitle one to apply a concept and what else doing that would commit or entitle one to, rather than with what would dispose one to apply that concept and what else doing that would dispose one to do” (12). See also ([Maher, 2012](#)) for a quick overview of the significance of this phrase.

It is worth noting that in its chronology, ([Maher, 2012](#)) fails to take notice of ([Brandom, 2001](#)) in which Brandom characterizes his pragmatism as a kind of functionalism and later uses the term “normative functionalism” to refer to it (4, 95).

business”, as I shall say sometimes), but she fails because her doxastic state fails to conform to those norms.

Admittedly, the constitutive account as I’ve laid it out so far is pretty rough. However, already there seems to be major objections to it. By way of getting clearer on the account and sharpen some of the edges, in the next few sections I want to bring up two challenges against the constitutive account and examine what the account would say in response. Both of these challenges can be labeled as the problem of impossibility of logical error. However, as we shall see, the two challenges are distinct in important ways.<sup>12</sup>

Here is the plan. I first consider cases in which one commits an error because of distraction, lack of attention, or some such impediment (§4.4.1). I call these “error from obstruction”. I argue that there is no reason to think that the constitutive account should be taken to imply that this kind of error is impossible. In §4.4.2, I then consider a more radical kind of error, namely, the kind that would be involved in cases in which one rejects the constitutive account altogether. I call these cases of “error from skepticism”. I argue that the constitutive account does indeed rule out the possibility of such errors. However, as I shall argue in the last section

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<sup>12</sup>For a survey of this challenge within the meta-ethical literature, see (Lavin, 2014). It’s worth noting that these challenges are central to the contemporary debate on Kant’s understanding of logic. See (Tolley, 2008) for a version of this worry against the normative reading of Kant on logic. Tolley’s reading contrasts with (MacFarlane, 2002)’s. See (Lu-Adler, 2017) for an overview of the debate on the normative understanding of Kant on logic. See also (Nunez, 2018).

It’s also worth mentioning that a similar problem is often discussed in the philosophy of logic literature often labeled by the slogan: “change of logic, change of meaning”. This claim is often attributed to those who take logical truths to be true by convention or in virtue of meaning. Perhaps most central figure who is associated with this slogan is Carnap. However, despite his strong opposition to analyticity, (Quine, 1986) also gives an argument in favor of this slogan from his principle of charity. See (Warren, 2018) for discussion.

of the chapter (§4.5), this claim should not be taken to mean that the constitutive account rules out alternative logics.<sup>13</sup>

#### 4.4 Possibility of Error

##### 4.4.1 Possibility of Error from Obstruction

Consider Yalda again. Suppose that the beliefs that she ends up with are the result of getting confused by the formulation of the claims. She knows and accepts that if she believes that it's not that case that you're not in the room, then she shouldn't also believe that you are still in the room.<sup>14</sup> However, because she is confused by the surface structure of the claim, she ends up holding both beliefs, thereby deviating from (Wo-).<sup>15</sup> Now, as we saw, according to the constitutive account, the reason why she is doing something wrong is that (Wo-) is constitutive of the broader enterprise she is engaged in, namely, holding beliefs. But in what sense exactly is (Wo-) "constitutive" of belief?

<sup>13</sup>In the next chapter we will encounter the possibility of yet another kind of error, namely, what I will label "error from Ignorance". I don't mean to suggest that these are exhaustive of the possible interpretations of the phrase "logical error".

<sup>14</sup>As I said in the previous chapter in §3.2, a certain sense of "grasp" of the logical principle and its applicability must be in place for the relevant sense of normativity. As I made it clear back then, this does not imply knowledge or acceptance in any explicit sense. In Yalda's case I will, however, assume both knowledge and acceptance of the principle and its applicability for ease of presentation. I will return to this issue below and in the next chapter.

<sup>15</sup>There is plenty of empirical evidence that we do in fact often deviate from logical norms (see, for instance, (Wason, 1966)). How exactly to interpret this phenomenon is partly what I am attempting to chart out in this chapter.



#### 4.4.1.1 The Analytic Model

One answer is that there's an analytic relation between not deviating from (Wo-) and each instance of believing, such that it is part of what it *means* for one to believe that one doesn't deviate from (Wo-). On this account, not deviating from (Wo-) partially defines what it means to believe something. An attitude, according to this line of thought, would not count as a belief unless it is free from any deviation from (Wo-).

This account is not plausible. For one thing, on this account, someone like Yalda who deviates from (Wo-) doesn't even count as believing. Yalda might say that she "believes" but really because, on this account, belief necessarily involves not deviating from (Wo-), she can't be engaged in the believing business. Thus, an immediate problem for this account is that it would have to offer an *error theory* about why we tend to think that someone in Yalda's position does believe.

For our purposes, however, the more pressing problem is that because, on this account, Yalda doesn't even count as believing, there's no reason to think that she is bound by the norms of belief in the first place. And because of that (Wo-) has no bearing for her whatsoever. This version of the constitutive account, therefore, cannot establish the connection that it needs, namely, that the reason why Yalda should heed your advice is that the norms that you cite are the constitutive norms of the larger project that she is engaged in. Since on this reading she is not engaged in the larger project, one could not cite its norms to give her advice.

One way of putting the point here is that on the analytic reading there's no room for Yalda to make a mistake. As soon as she deviates from a logical norm she stops counting as engaged

in the belief business and so there's no way for the constitutive account to claim that she is making a mistake.

It might be suggested that Yalda's mistake is that she fails to engage in the belief business. Notice, however, that to say this is to give up on the original constitutive line of thought. For the original idea was that we can criticize Yalda for failing to conform to certain norms by showing that these norms have a certain grip on Yalda which she cannot sidestep. With the suggestion that her mistake is failing to engage in the belief business the focus has shifted in a problematic way. For now we can ask "why would such a failure be bad?" Clearly an attempt on the same analytic lines that says that Yalda should care about the belief business because that's constitutive of, say, doxastic agency or some larger enterprise would not do. For if Yalda fails to engage in the belief business, then, on the analytic account, she doesn't count as engaging in doxastic agency either. Thus, for this suggestion to work there has to be a different account of why one should engage in the belief business. And unless there's an alternative way of understanding the constitutive account, that's just to say that the real source of the normativity of why Yalda should care about the norms isn't given by the constitutive account.

The issue here is about the relation implied in the claim that (Wo-) is constitutive of belief. The constitutive account could not offer an explanation of why Yalda should heed your advice and revise her beliefs, unless we could make sense of the relation between not deviating from the norm and believing in a way that would admit of counterexamples. In other words, for the constitutive explanation of why Yalda should heed your advice to work, we need an un-

derstanding of that relation according to which Yalda can deviate from (Wo-) and still count as believing such that we could hold Yalda responsible for deviating from the norms.<sup>16</sup>

#### 4.4.1.2 A Better Alternative: Belief as Normative Standing

The problem with the analytic model and its ken is that they fail to take note of a fundamental structural feature of norms. To bring this feature into focus, consider a football referee. In order to count as a referee, one must pass a variety of tests and filters. These are designed, among other things, to make sure that the referee knows all the rules and that she is capable of performing all the referee's functions. Once a referee goes through these tests and filters, and, in addition, various other conditions hold, she possesses a certain entitlement: she can now call the shots on the field. She also takes on a number of commitments: for instance, she is committed to calling out any and all fouls on the field. In short, she possesses what we might call a "normative standing" – a constellation of entitlements (rights) and commitments (responsibilities) which the referee has in her capacity as a referee.

It is worth distinguishing between what I have in mind by the referee's "entitlement" and the further authority that the referee has *to tell others* on the field what to do. The former is

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<sup>16</sup>It might be suggested that the constitutive account could do better by understanding the relation between not deviating from (Wo-) and believing as a substantive truth about belief on the model of, say, the claim that water is H<sub>2</sub>O or that the atomic number of Hydrogen is 1. However, even on this interpretation the problem persists. For even on this substantive account, to deviate from (Wo-) amounts to failing to engage in the belief business. Consider the example of water: If one finds a sample that looks and smells like water but has a different molecular structure than H<sub>2</sub>O, one does not conclude that the sample is defective water; rather the conclusion should be that it isn't water in the first place. Similarly, the retreat to a substantive account could not be enough to make room for the possibility of error for Yalda. As long as she deviates from the logical norm, on this view, she doesn't count as engaging in the belief business. And if she doesn't, the constitutive explanation of why she should heed the advice doesn't go through.

limited to how the referee sees things on the field. The latter, by contrast, goes beyond the former in that it involves the interpersonal relations between the referee and the players and others around the field. It is a substantive thesis to think that this further authority is also part of the normative standing of a referee. For my purposes, I will bracket this issue, and focus exclusively on entitlements and commitments.

What I want to highlight here is this. In the referee case it is clearly one thing to possess the normative standing of a referee and quite another to succeed in fully satisfying the commitments involved in having that standing. To *count* as a referee one must, among other things, pass certain tests and filters, wear a certain item of clothing, and be present on the field; to satisfy all the commitments involved with being a referee is, by contrast, almost an impossible feat. Despite all the measures taken to make sure that each referee performs her functions well, it would be a surprise if a given referee did not fail some of the time – otherwise, it would hardly make sense for football fans to blame referees with the ease with which they usually do.

That it is possible for referees to make mistakes by failing to satisfy all the requirements of their normative standing, however, takes nothing away from the fact that they count as referees – in virtue of taking on the role of a referee – and is thereby committed to making sure that there are no deviations. In any given moment in a typical game, including those in which the referee fails to uphold the rules of the game, she retains her normative standing as the source of authority and the subject of commitments on the field.

This is true both in cases in which a deviation takes place as the result of something external getting in the way of the referee – for instance, if something happens behind her back which she fails to see – and, in cases in which a deviation happens because the referee thinks, for instance, that a certain rule is cumbersome and doesn’t want to enforce it unless she has to. In either case, in taking on the role of a referee, she is committed to preventing deviations and she is subject to assessment in light of that.<sup>17</sup>

The example of the referee brings out a general feature of normative standings. Just as the referee’s possessing her normative standing is distinct from her satisfying the commitments of her role, for any normative standing we should likewise distinguish, on the one hand, the conditions under which one possesses it, and, on the other, the conditions under which one satisfies the commitments involved in the normative standing. Let us call these “possession” and “satisfaction” conditions of normative standings respectively.

It is important to note that to distinguish between possession and satisfaction conditions of normative standings is not to deny that there may be interesting ways in which the two interact. For instance, as it seems true in the referee case, it might be that there is a degree to which one must satisfy the requirements of a normative standing in order to count as possessing it. Be that as it may, my point here is simply that there can be cases in which possession conditions and satisfaction conditions are not identical so that one can count as having a normative standing while failing to satisfy some of the commitments involved in it.

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<sup>17</sup>I don’t mean to suggest these are the only two ways in which a referee might retain her normative standing as a referee and yet deviate from the her commitments.

Now, arguably, like being a referee, having a belief is a normative standing. While in the case of the referee the entitlements of the referee is the most striking component of the referee's normative standing, with belief it is one's commitments that takes center stage – to wit, the commitment to provide reasons for holding the belief and to use it as a reason for believing other things. However, despite this difference in emphasis, arguably both dimensions of normative standings are present in both cases. In the case of belief, for instance, not only is one *committed* to providing reasons for one's belief, if called on to do so, but one also seems to possess a certain *entitlement* – for instance, that of calling how things are with respect to what one's belief is about. Let us, however, focus on the commitment dimension of beliefs.

Suppose I look out of my window and spot a bird about which I form the belief that “this is a finch”. This seems to come with other commitments – for instance, a commitment to the goodness of the inference from that belief to the belief that “this is not a canary”.<sup>18</sup> After all, if the question arises, in holding the belief that “this is a finch”, I am committed to believing that it's not a canary. So, we can think of my belief that “this is a finch” in roughly the same

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<sup>18</sup>Exactly which “contrast classes” are relevant to my belief that “this is a finch” is arguably a context sensitive matter. In most cases, my belief does seem to imply that (and commit me to) “this is not a canary”, but things might be different in relatively extreme cases. For instance, if we are in the context in which knowledge of canaries and their relation to finches is not common ground, then it might be that my belief doesn't imply (and commit me to) the further claim about canaries. And where a skeptical scenario is made prevalent, the original belief might imply (and commit me to) something stronger: that “this is not a canary painted to look like a finch”. For further discussion and references (mostly framed in the case of *knowledge* attribution), see (DeRose, 1992).

It is worth noting that, according to this contextualist account of knowledge, there is no simple case of knowledge such that it doesn't require knowledge of at least some relevant alternatives. Knowledge, on this account, always comes in packages.

way that we think of the referee's place on the field: as a normative standing in the sense that in holding the belief I take on certain commitments.<sup>19</sup>

If believing is a normative standing, from our earlier observation that we must distinguish between the possession and satisfaction conditions of normative standings in general, it follows that we must take care not to confuse the conditions under which one possesses a belief, on the one hand, and those under which one satisfies one's commitments as a believer, on the other. But as soon as we make this distinction, the problem of deviation which plagued the analytic model disappears. Allow me to elaborate.

Recall that the problem on the analytic model was that there seems to be no way for Yalda to count as having a belief while deviating from (Wo-) by having contradictory beliefs. Given the distinction between possession and satisfaction conditions, we can see that Yalda's deviating from (Wo-) on a particular occasion need not rule her out as having a belief. It is, as with any normative standing, one thing for Yalda to have the commitment to follow (Wo-) and quite another to satisfy this commitment fully and therefore not deviate from (Wo-) at all.

One might wonder at this point what exactly the possession conditions of having a belief are. In Yalda's case, it might seem that the answer is easy. Recall that, as I described the case, Yalda knows and accepts that if she believes that it's not that case that you're not in the room, then she shouldn't also believe that you are still in the room. Thus, one might think that Yalda counts as a believer and thus possesses the commitment involved in having the

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<sup>19</sup>For recent suggestion along these lines see ([Hieronymi, 2006](#)) and ([McHugh, 2015](#)).

belief that “it is not the case that you’re not in the room” at least partly because she “knows and accepts” the commitment. We might say that she possesses the commitments because she explicitly “takes on” the commitment. However, to even come close to a general account of possession conditions, this clearly needs qualification. For one thing, as I’ve observed before, the “taking on” at issue here cannot always be an explicit acceptance or the account would be unacceptably intellectualistic; and it is hard to see what sense can be made of the idea that the “taking on” is implicit. In the absence of something more concrete, the latter route would seem to merely label a problem to which no solution is provided.

Luckily for now, we need not get into the details of this controversial issue.<sup>20</sup> For our immediate purposes all we need is to note that whatever the possession conditions of having a belief are, they need to be distinguished from the satisfaction conditions of the commitments involved in that normative standing. Moreover, once we distinguish these, we have an account of how Yalda could make a mistake and yet not thereby fail to count as a believer.<sup>21</sup>

We are finally in a position to see our new proposal: It is a mistake to think that the constitutive relation is between not deviating from (Wo-) and counting as a believer. That’s just to run together the distinction between possession and satisfaction conditions of having a belief. Rather, the correct way to understand the constitutive relation is to say that what it is to have

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<sup>20</sup>I will return to this issue in Chapter 5.

<sup>21</sup>In the next chapter, I will return to the question of what the possession conditions of belief are. Just to anticipate, I will not be taking on the ambitious task of offering a general theory of the possession conditions for belief; instead, I will focus on a much narrower task of identifying one way in which one might be misled about the possession conditions of belief and will explore the benefits of fending against this threat.



a belief is (partly) to take on a commitment to (Wo-) – whatever the correct account of “taking on” turns out to be. That’s what it means to say that (Wo-) is constitutive of belief. However, to say this is entirely consistent with failing to fully satisfy the commitment to (Wo-). So, there is no problem in a case where one takes on the commitment to (Wo-) and yet fails to satisfy it.

To be sure, there are other ways for Yalda to end up deviating from (Wo-): for instance, she might get depressed or just careless; she might be busy with some other task and overlook her commitment. Whatever the cause, however, there’s an overarching feature of such cases that brings them together under the label of “error from obstruction”: in all these cases if the agent is motivated enough and the mistake is pointed out to her, she tends to seek out ways to resolve the tension.

#### **4.4.1.3 Recalcitrant Cases**

In the next section, I will turn to a different kind of error, one that does not involve the kind of tendency for correction that is characteristic of errors from obstruction. However, before that, let me briefly consider a special class of errors from obstruction: those which are recalcitrant. What I have in mind are cases in which despite the agent’s awareness of the problem and her being motivated, she fails to take any steps to correct the tension in her beliefs. Following the similarly structured kinds of cases in the practical realm, these cases are sometimes referred to as “epistemic akrasia”.<sup>22</sup>

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<sup>22</sup>For a recent treatment see ([Greco, 2014](#)). The phrase seems to be originally used by ([Owens, 2002](#)).

A well-known example of this phenomena is the case of the “fearful flyer”. Matt is afraid of flying. He knows all the statistics on the safety of air travel and understands that the likelihood of his getting hurt is very slim. However, when the time comes for flying, he just can’t help but feel hesitant. Arguably, Matt’s behavior can be traced back to his beliefs. On the one hand, he believes that flying is safe and that he’s not in any real danger. On the other hand, however, he believes that flying puts him in great danger. In this situation, even if Matt is made explicitly aware of the conflict in his beliefs and readily admits that he’s not being fully rational in holding the beliefs that he does, he is nevertheless unable to take any steps to resolve the conflict. He’s stuck in an irrational state.

This would seem to automatically disqualify such cases as cases of error from obstruction. For recall that the cases of error from obstruction have the characteristic that the agent would tend to correct the error once she is aware of it and is motivated enough. Since cases such as Matt’s are ones in which the agent fails to correct the error, this might seem to rule them out as cases of error from obstruction. In other words, one might wonder if there is any sense in which Matt is *committed to*, say, (Wo-), if he can’t resolve the contradiction in his beliefs even after he is corrected.

Despite this difference, however, cases of epistemic akrasia are in essence cases of error from obstruction. I think that we can see this point if we get clearer on what epistemic akrasia is. ([Greco, 2014](#)) offers an attractive account modeled after a popular understanding of practi-

cal akrasia.<sup>23</sup> Before spelling out the account, however, allow me to register that while I agree with the outline of Greco's account, I find his particular gloss on it to be implausible. Luckily, as we shall see, we need not concern ourselves with this aspect of the account.

According to Greco, epistemic akrasia is a case of "inner conflict" or "fragmentation".<sup>24</sup> The idea is that, in Matt's case, for instance, Matt has two separate beliefs: first, a belief that flying is dangerous, and, second, a belief that he comes to have after all the stats about safety of air travel is pointed out to him. Now, Greco supplements this basic idea with the following thought – and this is his particular gloss which I don't quite agree with and believe to dispensable. Because the former of these beliefs seems to be linguistically less articulate than the latter, Greco suggests to call it a belief<sub>n</sub> for non-linguistic. In contrast, he suggests the label belief<sub>l</sub> for the latter kind of belief because it seems to be the upshot of a linguistic subsystem in Matt (209). The exact functions and features of the subsystems that are responsible for these beliefs, and whether the linguistic/non-linguistic divide is sufficient to distinguish them, is not important for our purposes.<sup>25</sup> So, let us bracket those features of the view. What's crucial here is that Matt has two distinct beliefs about the same subject matter which we can distinguish in some way, say, by their causal origins. Once we have this distinction, however, we can allow that in certain cases like Matt's, one can be disposed to believe that flying is safe, but

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<sup>23</sup>A chief advocate of the fragmentation account of practical akrasia is (Gibbard, 2003).

<sup>24</sup>For an early adoption of this kind of account in epistemology, see (Stalnaker, 1984). See also (Stalnaker, 1991) and (Stich, 1990). For a competing account of epistemic akrasia see (Weatherson, 2008).

<sup>25</sup>See for instance (Gendler, 2008) for an alternative account.

this disposition might be over-weighed by another stronger disposition to believe that flying puts one in great danger.

Given this account of epistemic akrasia, it's clear that we are still dealing with cases of error from obstruction. The problem for Matt, for instance, is that he sees no way of uniting his fragmented psychology such that he has a single coherent belief system. Instead, he is forced to live with both belief systems, accepting that his views on the matter are not quite rational. Like Yalda, he sees that his having the two beliefs amounts to deviating from a constitutive norm of belief, namely, (Wo-), and agrees that that's a problem. However, unlike Yalda, he's in the unfortunate situation of not being able to do much about it. Thus, whether one's tendency to correct the mistake is actualized, like in Yalda's case, or one ends up believing "akratically", like in Matt's case, the error is always one that traces back to the same source: an obstruction of the attempt to follow through with the norms that one is committed to in virtue of one's standing as a believer.

#### **4.4.2 Possibility of Error from Skepticism**

Despite the space that opens up for the possibility of error as a result of adopting the view of belief as a normative standing, there remains a certain kind of error that the constitutive account does rule out. To see what this kind of error looks like, it is helpful to begin with a contrast with error from obstruction.

Suppose Yara, Yalda's philosophically inclined sister, is in a similar situation as Yalda in that she deviates from (Wo-). Suppose she is engaged and is brought to see that her beliefs deviate from (Wo-). However, unlike Yalda, she insists that she has done nothing wrong.

Moreover, her situation is different from Matt who can't help but deviate from (Wo-). Yara explicitly flouts (Wo-) and reports that she will take the same measure against *any* other norm that might be suggested.

It's worth emphasizing that Yara's problem is not with (Wo-) or any other norm in particular; she is happy to go along with the idea that (Wo-) is the constitutive norm of belief. She wonders, however, what's so special about engaging in the belief business. Whatever the constitutive norms of belief, she asks, why is it worthwhile to follow those norms and not others?

To illustrate her point, she suggests *schmelieving* instead of believing. She contends that since on the constitutive account there could be no principled reason to prefer believing to *schmelieving*, the account fails to offer a viable (albeit partial) account of belief and thus cannot account for why she should not deviate from (Wo-).

Yara's point is a philosophical one. She has a global worry about the constitutive account. She thinks that the constitutive account doesn't have the resources to say why one should commit to (Wo-), or any other norm for that matter. She thus thinks that the constitutive account cannot offer an account why she should heed your advice.

Since Yara deviates from the logical norm, we can describe this case, as before, as a kind of error. Note, however, that this case involves a radically different kind of error than the earlier case. While before, Yalda had no qualms about the constitutive account, in the current case part of the point of Yara's deviating from (Wo-) is to raise a theoretical problem for the constitutive account.

As we shall see, there's reason to think that this new case as I've laid it out is in fact mis-described – that is, there's reason to think that Yara cannot possibly count as believing and at the same time also reject the norms that are constitutive of belief. However, just to note the radical nature of this case, notice that even just in terms of appearances this kind of case is quite rare. While cases of error from obstruction are commonplaces of the human condition, we could encounter a case in which one appears to flat-footedly reject all rational coherence requirements (such as (Wo-)) only in philosophical discussions.<sup>26</sup>

Before considering whether the constitutive account can make room for this kind of more radical error, allow me to reiterate why one might think that this new case could pose a problem for the constitutive account. According to the modified version of the constitutive account which I defended in §4.4.1, to have a belief just is (partly) to take on a commitment to (Wo-). The case at hand, however, seems to be one in which Yara succeeds in having beliefs and yet she rejects (Wo-) altogether and threatens to take the same measure against any other norm. Yara is arguing that since the move to reject the constitutive norm of belief is always in principle open to her, the very idea that one should engage in the belief business is undermined. Thus, the constitutive account cannot be the right account of the source of the normativity of

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<sup>26</sup>As I said in footnote 15, there are psychological tests such as the Wason task which are often taken to show that human beings are in fact quite incompetent at logical reasoning (see, for instance, (Wason, 1966)). It is far from clear, however, what the implications of such tests are. Even if we agree (as I think we should) that they reveal some deep-seated ineptitude with logic in the sense that we often make errors from obstruction, they do not necessarily establish anything about whether errors from skepticism are possible. As (Van Benthem, 2008) observes, the subjects in such experiments have no trouble understanding and agreeing to the logical solution when it is explained to them. The problem in such experiments is merely that somehow the subject doesn't manage to see the solution on their own.

the logical norms. Yara's error – if we can call it that – is, then, what we might call an “error from skepticism”: she ends up with the “beliefs” that we find objectionable by way of raising a skeptical challenge about the constitutive account.

It might appear as if there is a way for the constitutive account to make room for the possibility of error from skepticism. The suggestion I have in mind is that we should adopt a more relaxed attitude toward our understanding of the concept of belief (or doxastic agency more generally). If we do that, the suggestion goes, we can make room for cases in which one counts as believing and yet fails to commit to (by rejecting) the constitutive norm of belief. One way of doing that is something along the lines of ([Craig, 1990](#))'s treatment of the notion of belief as a *family resemblance*.<sup>27</sup> The rough idea is that there are a family of norms and features that are essentially involved in what belief is but no single feature is present in all instances of belief. Thus, one might think that besides (Wo-) there are many other norms such as, for instance, the truth norm or some norms of assertion that are essentially involved in belief, but also think that no one of these norms is always present when one believes. What makes an attitude a belief is its conformity with (in the sense of non-deviation from) many but not all of the constitutive norms of belief, thus leaving room for the possibility of someone deviating from one of these norms, without automatically dropping out of the believing business.

This suggestion, however, misses the mark. For it does nothing to explain why Yara should heed your advice and change her belief. As we have seen, in the case at hand, Yara is skeptical

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<sup>27</sup>For similar suggestions see ([Railton, 2003](#)). See also ([Schwitzgebel, 2002](#)) and ([Schwitzgebel, 2003](#)). The idea goes back to ([Wittgenstein, 1958](#)).

about whether she should engage in the belief business in the first place and has no problem with this or that norm being the constitutive norm of belief. She wants to know why she should engage in the kind of activity whose constitutive norm is (Wo-) or whatever else. Our insisting that this or that norm or a combination thereof is constitutive of the activity just misses the point.

Yara's predicament can seem specially pressing if one focuses on the sorts of examples that I gave in the beginning to motivate the constitutive account. Consider the game of chess. I claimed that just as certain rules of the game of chess are constitutive of what the game is, similarly logical norms are constitutive of the activity of believing. However, notice that the rules of chess are not binding on a player in and of themselves. One can always opt out of playing chess and thereby cease to follow its constitutive rules. And it's easy to think of cases in which the rational thing to do for a player is just that: If I see that my house is burning down, I should probably quit the game. So, in the case of chess it makes perfect sense to wonder whether one should follow the constitutive rules of chess and thereby play the game. Now, if the analogy that we began the constitutive account with is on the right track, one might reasonably enough expect that the same question can be raised about the constitutive norms of belief or doxastic agency.

The case of doxastic agency and chess, however, are importantly different.<sup>28</sup> When the chess player pauses the game to wonder if it's a good idea to continue playing, she momen-

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<sup>28</sup>See ([Ferrero, 2009](#)) for a similar point about practical agency. See also ([Katsafanas, 2013](#)).



tarily stops playing the game. She can, as it were, step out of the game and consider whether her playing chess is worthwhile.

In the case of believing, by contrast, there's no such external view point from which one might pose one's skeptical question. When Yara wonders why she should be a believer, she doesn't thereby put her status as a believer on hold or step out of the believing business. That's because Yara is asking for reasons to be a believer, but what could she be asking for if not reasons to *believe* that she is a believer? Her asking for a reason just is a way of engaging in the belief business. Since her asking for reasons assumes some norms that govern how beliefs are rationally related, and because, on the constitutive account, commitment to these norms is (partly) just what it is to be a believer, Yara counts as engaging in the belief business whether she admits it or not.

My point here is not merely a local one about what one is committed to in raising a skeptical question. It seems to me that engaging in the belief business by following the constitutive norms of belief is an indispensable feature of rational agency more generally. To count as a rational agent one must have some views about the world and that requires, one the assumption that the constitutive account is correct, being committed to various things including supporting one's views with reasons. Thus, according to the constitutive account, Yara couldn't even begin to have view about the world, let alone communicating about them by, for instance, raising a question, without already taking on commitments to *some* norms of belief.

Now, I don't deny that this argument may not succeed in convincing someone like Yara who is in the grip of a skeptical episode. However, if my argument succeeds, then Yara's very

attempt to pose the question “why should I engage in the belief business?” appeals to (some) logical norms and so she can’t reject *every* candidate constitutive norm of belief. Yara, then, doesn’t succeed in the least in raising a genuine worry about the legitimacy of engaging in the belief business. In posing the question, if the constitutive account is right, she is committed to some constitutive norms of belief and thus operates as a doxastic agent.<sup>29</sup>

What this shows, I think, is that despite appearances we don’t have a clear account of what is going on in Yara’s situation. On the one hand, Yara seems to give up being a believer by explicitly rejecting the constitutive norms of belief. On the other, in raising her doubts she thereby implicitly endorses some norms and thereby engages in the belief business. While it may not be entirely clear how to describe Yara’s case, we can say one thing confidently: we have not been provided with a reason to doubt the constitutive account. We can’t respond to Yara on her own terms, not because there is no answer to her challenge, but rather because she doesn’t manage to raise a genuine challenge in the first place. Absent such a challenge, we have no reason to reject the constitutive account.

Despite the limits on what Yara can achieve, however, we must be careful not to overstate our case. In the next section, I argue that even though it’s impossible to raise a skeptical

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<sup>29</sup>One might reasonably think that we need to reject schmelieving in order to complete the argument. However, note that the constitutive account is not committed to any particular conception of believing. As I shall argue in the next section, the constitutive account is neutral with respect to what the correct constitutive norms of belief are. Thus, it would be a mistake to think that the view can – or should – reject schmelieving on account of the different constitutive norms which it postulates. Having said that, let me point out that, again, as I shall argue in the next section, to think that one is talking about a totally different activity if one has a different view of the constitutive norms is also a mistake. We have the resources to account for disagreements on the constitutive norms without lapsing into talking past each other.

challenge against the constitutive account, it is nevertheless possible to reject the particular conception of belief (or doxastic agency) that has (Wo-) (or whatever other norm) as the constitutive norm of belief. One can legitimately reject (Wo-), if one thinks that it is wrong. Appreciating this point is an important reminder that there's no reason to expect that our scientific endeavors in the field of logic and epistemology should take us in any specific direction. The point is that whether a norm like (Wo-) deserves the label "the constitutive norm of belief" is a question whose answer can't be decided ahead of inquiry. The fact that Yara can't raise a skeptical challenge does nothing to undermine that thought.

#### **4.5 Constructivist Pluralism about Logic**

So far I have presented the constitutive account and have argued that while it does allow for certain mundane sorts of error, it nevertheless rules out a wholesale skeptical challenge to the constitutive account. Thus, we've seen two ways of making sense of deviation from a logical norm: first, that one is making an honest and all-too-familiar kind of mistake, and second that one is trying (but failing) to raise a skeptical challenge against the idea that logical norms are constitutive of belief. But these options aren't exhaustive of the things that we might take someone who is deviating from, say, (Wo-) to be doing. In this section, I want to identify another alternative, one that can be easily overlooked. By drawing attention to this option, we can gain further clarity on the sense in which the norms can be said to be constitutive of belief (and doxastic agency more generally).

Given the discussion in the previous section, it might seem natural to think that since the logical norms cannot be doubted in virtue of the essential role that they play in belief and dox-

astic agency, they are settled once and for all. That is, it might seem that my argument in the previous section privileges a certain understanding of the logical norms over others. However, it is important to emphasize that this would be to overstate the conclusion. All that the argument in the previous section shows is that the skeptical challenge that seeks to undermine the very idea that one ought to follow the constitutive logical norms fails. In particular, the argument does not require taking a stance as to what the constitutive norms of belief are. For all that has been said so far, the constitutive norms could turn out to be different from what we take them to be.

If we appreciate this point, we can begin to see the possibility of a different kind of situation from those we have considered thus far. Consider Yahya, who agrees with Yara in so far as he rejects (Wo-). However, unlike Yara, he stops short of rejecting *any* potential norms. When Yahya insists that there is nothing wrong with what he believes, he doesn't mean to raise the radical worry about reasons for engaging in the belief business which we considered in the previous section; his worry is rather a much more local one about a particular case. He is asking why one should follow the particular norms that we assume to be the constitutive norms of belief. There are two ways that he might pursue this line of questioning: on the one hand, he might ask why one should think that (Wo-) is the correct principle connecting logical facts to reasoning; and, on the other, he might wonder whether double negation elimination – i.e., what allows for a criticism of his beliefs – is a logical fact. Again, the issue now isn't about whether it's worthwhile to engage in the belief business (understood to be governed by the constitutive norms); Yahya agrees that that's the thing to do. What he is inquiring about

is whether in his particular case, engaging in the belief business would have the normative implication that we take it to have.

We can make this point more readily if we draw a Rawlsian-inspired distinction between the concept of belief and particular conceptions of it.<sup>30</sup> The idea is that we can think of the concept of belief along the constitutive lines as presenting a problem in the sense that it sets the boundaries for what could count as a legitimate specification of what belief is. The concept invites and at the same time determines the criteria for a candidate account of belief – including the constitutive norms that govern it. A particular conception of belief, in turn, is an account that fits the criteria and therefore is a potential candidate. Among other things, a conception of belief would lay out the particular norms that, according to the account, are constitutive of belief.

This distinction helps us see that once we have a particular conception of belief, we must ask whether it fits the criteria set by the concept of belief. There is no reason to think that the answer to that question is settled in advance of inquiry. In particular, there's nothing in the very concept itself that settles what *the* correct conception has to be.

If we adopt this Rawlsian-inspired distinction, we can put the worry that I said Yahya might be rightly raising about his situation more sharply in the following way: we can say that he agrees with the broadly constitutive account that the source of the normativity of logic

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<sup>30</sup>See (Rawls, 1971). Rawls makes the distinction between the concept and conceptions of *justice*. I'm borrowing that idea here to apply it to the case of belief. See also (Korsgaard, 1996), and (Ferrero, 2009) for similar applications and further clarification.

lies in the constitutive features of belief, but he wonders if the particular conception of belief that is at work in your criticism of him is correct. And here he has two options: he might wonder about (1) the particular bridge principle you assume; and (2) the logic that you take for granted (for instance, whether double negation elimination is valid).

Recall the second task that I laid out for the intrinsic view in the introduction: to give an account of how or in what sense logic is supposed to *explicate* the logical norms. Note that this task is exactly what Yahya is pointing to when he asks what the constitutive norms of belief are that he must abide by. For to ask what the constitutive norms of belief are is in effect (partly) asking for an explication of the correct logical norms in terms of a logical theory. In our intrinsic framework, what that translates to is two things: (1) the bridge principle that connects logic to our inferential practices; and (2) the logical theory itself. Thus, for Yahya to inquire about these two questions is just to ask whether the explication relation between logic and our inferential practices works in a way that gives rise to the particular norm that he is wondering about.

In the next chapter (chapter 5), I lay out the outline of the kind of response that I think we should give to this question. In the remainder of this chapter, I want to prepare the groundwork by offering a few preliminary observations and warn against potential mis-directions. This will put us in a better position, in the next chapter, to see the account of how anything resembling logic can be seen as an explication or codification of our inferential practices.

Let me begin with a word of warning: we must take care not to slip back into Yara's skeptical frame of mind from the innocuous position that Yahya is now occupying. It is easy to

think that because there's no settled answer to the questions about (1) and (2), this means that the constitutive account itself is undermined. The worry, as we saw with Yara, is that one can raise worries about (1) and (2) for any particular conception whatsoever and if that's true, then it would mean that there is no fact of the matter about which conception correctly answers the problem that the concept of belief presents. As we have seen, however, this is a mistaken line of thought. For there is no way for anyone to raise this apparent radical problem without already engaging in the belief business. That we can raise a worry about (1) and (2) about any particular norm does not mean that there's no fact of the matter about the constitutive norms of belief.

Now, how might we address Yahya's legitimate worries? An initial point to make is that plausibly there are constraints on when and how one can legitimately raise these questions. For instance, in situations where logic is not directly under discussion or where there are no logicians or epistemologists in sight, it is plausible to say that logical norms are part of the background assumptions and are not up for debate. Their place in one web of beliefs, one might think, is so fundamental that it gives them a certain kind of resilience to challenge and so it takes certain kind of contexts (namely some of those where questions about logic and epistemology are salient) where one can even formulate the question. I'm imagining that outside of these context there is no question that Yahya could be asking. His position in those contexts is similar to the skeptic who tries to raise a question but fails. Clearly there's much more to be said about what these restrictions look like and I don't have the space to say much more.

However, for my purposes suffice to say that we need to leave room for certain restrictions on when and how one can legitimately raise a question about (1) and (2).

Let us suppose, however, that in Yahya's case he does succeed in raising a question about (1) and (2) legitimately. In order to answer his worries, we can start with the observation that there is an appropriate place where we formulate logical theories about constitutive norms of belief, put them to the test, and fine-tune them: that is in our collective research on logic and epistemology. To be sure, this work is intricate and fraught in all the ways in which such enterprises are, and it is beyond the scope of this chapter to go into these intricacies. The point is just that the answers which Yahya is looking for would have to emerge as a result of a collective logico-epistemological research.

As it turns out, however, there's widespread disagreement among researchers on both of these questions. As we've seen in chapter 1, despite the popularity of (Wo-), the question of which of MacFarlane's 16 bridge principles is the correct principle remains unresolved.<sup>31</sup> Similarly, there's no end in sight for the notorious debates over the correct logic: classicism, intuitionism, relevantism, etc. The question, then, seems to be inescapable: if logicians and epistemologists cannot agree on the answer to these questions, what does that mean for the rest of us who like Yahya want to know what the correct logical norms are?

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<sup>31</sup>See ([Harman, 1984](#)), ([Steinberger, 2019a](#)) among others.



There are many ways one might try to answer this question.<sup>32</sup> What I wish to do is to lay out one option which I think fits particularly well with the intrinsic view and that for that reason I find attractive. I do not mean to suggest that this is the only viable option.

I think that a constitutivist can make a start in answering the question of logical disagreements by adopting logical pluralism, i.e., the view that there is more than one correct logic.<sup>33</sup> If we marry logical pluralism with the intrinsic view, we get a satisfying picture which has quite a bit of explanatory power.

The rough idea is this. Recall that according to the intrinsic account our doxastic practices come first in the order of explanation, and it is in relation to these practices that we should understand logic. If we, in addition, accept that the motley of our practices are protean and adaptive in the ways that they appear to be, then it seems only natural that our explication of these practices in terms of a logical theory should likewise be adaptive and sensitive to changes in context. In contrast, an account of the logical theory which doesn't enjoy such flexibility seems to owe us an additional explanation of why the practices nevertheless appear protean.

That there are multiple equally correct logics, however, does not mean that in a given situation there are multiple logics that play a normative role in deliberation or our evaluative practices. A more attractive option is to say that depending on the *context* in which the logical deliberation or the evaluation is taking place a particular logic is selected for, which, in turn,

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<sup>32</sup>See the growing literature on philosophical disagreement. For a survey see ([Ferrari and Pedersen, 2019](#)).

<sup>33</sup>See, for instance, ([Beall and Restall, 2006](#)).

partly determines what the correct logical norms are. Thus, there's a nice symmetry between the way logical theories are designed and the way they determine the correct logical norms.

What makes a logic correct is its ability to lay out the constitutive norms of belief in a given context.<sup>34</sup> This kind of contextualism is explanatorily powerful. It can help us explain the diverging intuitions that different people might have about what follows from what in a given situation. It can also explain our shifting intuitions about logical validity.

To see this latter point, suppose that you try to tell Yahya that he is mistaken in believing both that it's not the case that you haven't left the room and that you are still with him. Suppose, however, that Yahya remains adamant and responds by asking: "couldn't it be that the truth value of your being in the room is indeterminate?" You wonder what he could have in mind and ask him for clarification. He explains that since you are close enough to the doorway and since it is not clear where exactly the physical boundaries of you and the room are, our concepts are simply not precise enough to settle what the truth value of the claim that "you are in the room" is. According to Yahya, the concepts of "being in", "you", and "room" are vague concepts, which can sometimes give rise to cases in which English sentences involving them are neither true nor false. Her point is that most of our concepts are vague and that this motivates a move to a new logic that accommodates them.<sup>35</sup> It seems to me that unless

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<sup>34</sup>For a defense of contextualism about logic and further discussion see (Caret, 2017). Caret's view is modeled after contextualist views about knowledge. See, for instance, (DeRose, 1992).

<sup>35</sup>The above observation about vague concepts and indeterminate truth values has served as a motivation for expanding classical logic into the paracomplete realm. For instance, (Wright, 2007) proposes intuitionistic logic as a solution to the Sorites Paradox. In spite of this, vagueness is not a historically

Yahya's response is untimely or otherwise ineffective, your reaction should not be to insist on your original criticism, but to allow that Yahya might have a point after all.<sup>36</sup> If in posing the question about indeterminate truth values, Yahya succeeds in changing the context effectively, he might get you to accept that there's nothing wrong with adopting a logic that accommodates indeterminate truth values and thus invalidates double negation elimination. If this is possible, then Yahya has managed to change the context in a way that has made a different kind of logic relevant – in this case some *paracomplete* logic (i.e., a logic which allows for the third truth value of 'neither true nor false'), for instance, intuitionistic logic. The contextualist account can satisfactorily accommodate this idea.<sup>37</sup>

Despite the contextualist account's explanatory power, however, there still remains the worry about what the criteria are for how well a logic lays out the constitutive norms of belief in a given context. I think that here we must fall back on our general logico-epistemological endeavors and the kind of balance that we would have to strike between theorizing and our intuitions about correct inferential practices. What I have in mind is another Rawlsian idea,

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accurate motivation for the development of paracomplete logics. For a quick introduction and further suggested readings see (Beall, 2010).

<sup>36</sup>Needless to say, it cannot be that Yahya succeeds in changing the context by merely uttering those words. There has to be other conditions in place, which is why I qualify my claim by adding the conditions that Yahya's response is not "untimely or otherwise ineffective". That phrase is deliberately vague to allow for different ways in which one might develop the conditions on effective shift of context. Luckily, we can bracket this point for our purposes.

<sup>37</sup>(Caret, 2017) gives a similar argument in support of his contextualism.

namely, *reflective equilibrium*.<sup>38</sup> In theorizing about logic we lay out principles that are in line with a broad sample of our intuitions about what is and isn't valid. However, in doing this we seek to strike a balance with simplicity of the theory and its usefulness. Thus, in the service of theoretical utility, we might accept a principle of logic which has unintuitive consequences, as we do with any other theorizing. Consider, for instance, a definition of "fish" which rules out whales.<sup>39</sup> Plausibly what has led to the prominence of this conception of "fish" rather than others is its better fit with our other biological categories and so on. Similarly, on the account I'm proposing, what determines whether a logic lays out the correct norms of belief in a given context is ultimately logico-epistemological agreements on whether or not it fits with our practices well enough. Accordingly, the view is broadly constructivist about logic in that it construes the criteria by which different logics are selected as based on our considered attitudes as we strive to understand the constitutive norms of belief.

In the next chapter, I offer a sketch of how logic might be thought of as the explication or codification of our inferential practices, which I believe comes close to striking a nice equilibrium between theoretical utility and capturing our inferential practices. To be sure, to substantiate this claim we will have to take a close look at the account.

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<sup>38</sup>([Goodman, 1983](#)) is often credited with being the first philosopher to apply this idea to the case of the justification of inductive and deductive logic. See also ([Quine, 1980](#)) and specially ([Quine, 1936](#)).

<sup>39</sup>Cited in ([Goodman, 1983](#)). For a theory of how this balancing act (i.e., "meta-linguistic negotiation") might work in the case of empirical concepts like "fish" or "vegetable" see ([Plunkett and Sundell, 2013](#)). For an application of this idea to the case of logical pluralism and its consequences see ([Kouri Kissel, 2018](#)).

## 4.6 Conclusion

In this chapter, I began with the challenge of providing an account of how logic, despite not involving any explicit normative language, is in fact a normative enterprise. My suggestion, in a nutshell, has been that logic is the explication of the norms that are partially constitutive of our doxastic lives. Thus, instead of starting with an independent understanding of logic and then offering an account of its normative import as on the extrinsic view, on my proposal, our very understanding of logic is dependent on the norms that are constitutive of what we do when we believe. Thus, the intrinsic view reverses the order of explanation that the extrinsic view assumes by proposing to understand logic as intrinsically a normative enterprise.

However, to substantiate this thought we need more clarity on the idea that logical norms are constitutive of belief. I began with a general challenge against this rough idea, namely, that it rules out the possibility of errors. I isolated two different kinds of errors and argued that while what I labeled cases of error from obstruction are perfectly possible on the constitutive account, cases involving skeptical challenges against the constitutive account are ruled out.

In the last section, I identified a further kind of non-skeptical inquiry about the logical norms, which merely asks what the correct norms are without seeking to undermine the constitutive account. I argued for a broadly constructivist view according to which the criteria that determine what the correct logic is depend upon our collective logico-epistemological practices in our attempt to understand the constitutive norms of belief. On this account, the source of the normativity of logic is still constitutive features of belief and doxastic agency. However, what these constitutive features are depend in two different ways on more than just

the nature of belief and doxastic agency: First, they depend on the features of the context in which logic is used; and, second, they depend on our logico-epistemological attitudes in our collective effort to understand belief and doxastic agency.

This still leaves open the question of how anything resembling logic, as we understand it from our modern perspective, might be seen as explicating or codifying the constitutive features of our beliefs and the inferential practices which are essential to them. I will take up this task in the next chapter.

## CHAPTER 5

### LOGIC ELABORATED

#### 5.1 Introduction

In the previous chapter, I offered a rough sketch of an intrinsic view according to which the source of the normativity of logic lies in the nature of belief: Logic, I said, explicates the norms and commitments that are constitutive of belief. By way of getting clear on the constitutive relation between belief and its norms and commitments, I considered variations on one of the most serious stumbling blocks against it: namely, the possibility of error. I said that since in holding belief we take on certain commitments, we can think of believing as at least in part a *normative standing* which we, as believers, possess, where a normative standing is just a constellation of commitments and entitlements. Focusing exclusively on commitments, I then argued that quite generally we must distinguish between, on the one hand, the conditions under which one possesses a normative standing, and, on the other, the conditions under which the commitments involved in the normative standing are satisfied. I labeled these the “possession” and “satisfaction” conditions of normative standings respectively. I said that if we make this distinction in the case of belief, then we can quite readily allow for cases in which one counts as holding a belief and yet deviates from the norms because of some obstruction.

In this chapter, my aim is to elaborate further on each of the two sides of the distinction between possession and satisfaction conditions of believing understood as a normative standing.

After a brief review of the difference between possession and satisfaction conditions in §5.2, I turn in §5.3 to an examination of the possession conditions first. I pursue a venerable line of thought which places the idea of “reflection”, or “self-determination” at the heart of what is involved in taking on a commitment. The basic idea is that we couldn’t really take on a commitment if we don’t have some kind of “control” or “discretion” over what we commit ourselves to. Applied to the case of belief, however, this idea has raised some serious worries since it seems that we can scarcely believe “at will” and so the idea that we have any kind of control seems strained at best.<sup>1</sup> I argue that there is a way of making good on this idea for the case of belief.

Following the recent debate in the “ethics of belief” literature, I propose that the correct way of understanding this idea would require thinking of holding a belief as an active exercise of a rational capacity (call this the “Active Belief” model). Believing, on this account, is an activity for which we are directly responsible.<sup>2</sup> I argue that the alternative model, according to which belief is not an activity, and is instead thought of a state that is an upshot of other things that one does (e.g., making a judgment or “forming a belief”), is untenable. The problem for

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<sup>1</sup>([Williams, 1973](#)) is the often cited as the instigator of this worry.

<sup>2</sup>Some defenders are ([Boyle, 2009](#)), ([Boyle, 2011](#)), and ([Hieronymi, 2006](#)).



this alternative model is that it fails to respect some intuitive observations about how we treat believers.<sup>3</sup>

Given the Active Belief model, however, it might appear as if when I believe that *P* by exercising my rational capacity, I do so in virtue of fixing the content of the commitments that I take on. As natural as this thought might seem, I argue that general reflection on normative standings shows that it is unmotivated and quite implausible.

But this raises the question: If the satisfaction conditions of my commitments in holding a belief are not determined by my taking on the commitment, what does determine them? What exactly is it that determines the content of my doxastic commitments?

In section §5.4, I return to discussing logic. I defend the thesis that logic helps to make explicit the structural features of the content of the commitments one takes on as a believer. My aim in this section is to tackle the second of the two tasks which I isolated in the previous chapter for the intrinsic view: to show how anything recognizable as logic from a modern perspective can be thought to explicate the content of the commitments one takes on in virtue of holding a belief. Drawing on ([Brandom, 2010](#)), I argue that we can do this by thinking of logic as a certain kind of metavocabulary for any exercise of our rational capacities as believers – namely, the metavocabulary whose use can be mastered by any believer in virtue of having the rational capacities which are necessarily involved in forming beliefs.

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<sup>3</sup>The alternative view is widespread, and not everyone who endorses it does so explicitly. Perhaps the most explicit endorsement of this view is ([Shah and Velleman, 2005](#)).

Putting the results from §5.3 and §5.4 together we get a fuller specification of the constitutive account. On the one hand, we have a better understanding of the possession conditions of believing understood as a normative standing, and, on the other, we have an account of at least some of the satisfaction conditions of the commitments one takes on as a believer: namely, those which are explicated by logic.

In the final section of the chapter (§5.5), I return to the discussion at the end of the previous chapter (§4.5) to emphasize that there is no reason to think that what determines the satisfaction conditions of commitments are such that they do their job independently of things that we do. These contents need not be determined by either timeless facts from a realm beyond or things that one does in possessing the normative standing of belief (as we saw in §5.4). A more attractive option is that they are determined by the broader established practices surrounding believers.

This entails that the content of the norms and commitments one takes on as a believer can outrun one's capacities as an individual rational creature. It also means that these commitments can be dynamic and change as the broader practices rational creatures engage in transform over time. Because of the explicative role of logic, I believe, this strongly suggests that there is no one true logic; rather there are a plurality of logics which explicate the inferential practices which we engage in. This situation, however, takes nothing away from the normative import of logic and the constitutive account has no trouble explaining how.

## 5.2 Possession vs. Satisfaction Conditions

Let us begin with a recap of the general difference between the conditions for possessing a normative standing and the satisfaction conditions of the commitments one takes on in virtue of having that normative standing. Recall the soccer referee example. In the previous chapter, I said that in order for the referee to possess the standing of a referee, she must pass a variety of tests and filters. Despite these measures it would be a surprise if a referee did not at least sometimes fail. As we saw, however, that the referee can fail in satisfying all the commitments that she takes on does not in any way affect the fact that the referee – in virtue of taking on the role of a referee – is indeed committed to making sure that there are no deviations.

In the case of the referee, then, it is clearly one thing for the referee to possess the standing of a referee, and quite another to actually uphold all the rules and thus satisfy the commitments which she takes on. Generalizing this point, we must distinguish between, on the one hand, the conditions under which one possesses a normative standing, and the conditions under which one satisfies the commitments one takes on in virtue of possessing the standing, on the other.

To be sure, sometimes, as is probably the case with some of our referee's commitments, the conditions to possess a normative standing involve an explicit endorsement of the satisfaction conditions of the commitments involved in the normative standing. In such cases, the conditions under which a commitment is satisfied are *determined* by the very taking on of the commitment. In other words, the possession conditions are what we might label the "satisfaction-determining" conditions of the commitments involved in the normative stand-

ing. Note that even in these cases, it remains true that the possession conditions and satisfaction conditions are distinct. To possess the normative standing of a referee, let us imagine, one must be familiar with book of rules and perhaps even sign off on it; to satisfy the commitments one thereby takes on would be to fulfill the almost impossible task of making sure that there are no deviations. I will return to a discussion of satisfaction-determining conditions below.

Now, in the previous chapter, I claimed that all we need in order to allow for what I labeled cases of “error from obstruction” is to (1) recognize belief as a normative standing and (2) appreciate the distinction between possession and satisfaction conditions of the commitments involved in holding a belief. As for the former point, the idea is that in forming a belief we essentially take on certain commitments – to provide reasons for holding the belief and to use it as a reason in believing other things. For instance, if I look out of my window and spot a bird about which I form the belief that “this is a finch”, I thereby commit to the goodness of the inference from that belief to other beliefs, for instance, as the case may be, the belief that “this is not a canary”. In other words, in order for my belief to count as a belief about finches, I should be prepared to rule out certain other alternatives, for instance, that the bird is a canary.

As for the second point, namely, the appreciation of the distinction between possession and satisfaction conditions in the case of belief, the idea is simply the application of the general distinction in the particular case of belief: Just as the referee can fail to catch all deviations from the rules of the game and still count as a referee in virtue of being committed to catching all deviations, so can believers fail to satisfy the commitments despite counting as a believer in

virtue of taking the commitments involved in the belief. As believers we are subject to certain norms even in cases where we deviate from them.

So far, I've only reviewed material that we have already encountered in chapter 4. But what are the possession and satisfaction conditions of believing understood as a normative standing? Are there any general observations that we can make regarding these two conditions? In this chapter, my aim is to elaborate each of these conditions. In the next section, I focus on the possession conditions of belief. I claim that we can only count as believing if we do so with a certain kind of 'control' or 'discretion' concerning what we are doing. In order to give this idea some flesh, I compare two ways of glossing it and argue that only one of these, namely, what I will label the Active Belief model, is tenable. I then show that it is a mistake to think that the Active Belief model of the possession conditions of the commitments implies that the satisfaction conditions of those commitments are determined by their possession conditions. In other words, I argue that it is false that the possession conditions are the satisfaction-determining conditions. This will prime us for our discussion in §5.4 of the satisfaction conditions of the commitments we take on as believers and the role that logic plays for these commitments.

### 5.3 Reflective Believing

In this section, I take up the question of what the possession conditions are for the commitments one takes on as a believer. According to a venerable tradition, going back to Aristotle

and Kant, we can only take on commitments which we somehow self-consciously accept or endorse.<sup>4</sup>

Applied to the case of belief, the basic underlying idea is that one cannot end up holding beliefs *accidentally*. For instance, if I believe that the coffee in front of me is hot, this cannot be something that is a result of, say, a fortuitous glitch in my beliefs. It might seem plausible that in such a case I still have a belief; it's just that my belief is not (doxastically) justified. However, according to this line of thought, this is a mistake. For one to even count as having a belief in the first place, on this account, it must be that the belief is held appropriately. For instance, in the case in which I believe that the coffee in front of me is hot, the thought is that I must hold the belief *because* I see that it is or *because* I believe that if I touch the cup I will burn myself. Note that the sense of "because" here is not merely causal; rather the point is that I can count as holding the belief only if I situate the belief within a nexus of other beliefs that I have: those which imply it *and* those which it implies.<sup>5</sup> Call this the non-accidentality requirement of belief.

We encountered a similar point in §3.2. There I observed that in the case of Yaya – your friend who is looking for her key, finds out that it's not in the one of the two drawers of the desk she knows the key to be in, and concludes that it must be in the second – we can provide

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<sup>4</sup>I will provide references to more contemporary sources below.

<sup>5</sup>Needless to say, the case of perceptual knowledge is fraught with complications which I don't have the space to get into here. My point is merely that, according to the view under discussion, the perceptual belief I have of the coffee in front of me cannot be accidental; what exactly the details of a positive account would have to look like is beyond the my scope here.

an explanation of why her believing that the key is in the second drawer is as it should be (what we might call a *normative* explanation) only if we attribute to her a *grasp* of the logical laws. For, if Yaya believes that the key is in the second drawer not because it follows from things that she knows to be true, but because she remembers that she put the key there last week, then our explanation of why she believes what she should has nothing to do with the logical relation between her premises and the conclusion. Generalizing this point, we can say that a normative explanation of why a belief is as it should be can work only if the believer believes *because* of the principles at work in the explanation in question and so doesn't believe accidentally.

Admittedly, the latter point is formulated in terms of the availability of a normative *explanation* of why a belief is appropriate and so it might appear that it does not immediately transfer to our discussion of possessing a belief in the first place. However, note that the kind of normative explanation at issue here (i.e., what I labeled "response-guiding" normativity in chapter 3) is not merely involved in evaluations from a third-personal perspective, but, as I took pains to explain in chapter 3, also involved in first-personal deliberation about what to believe. The idea was that the kind of explanation at issue in Yaya's case is something that goes into her deciding what she should believe in the particular situation. If she reasons properly, she should not believe that the key isn't in the second drawer because she sees endorses the inference from the beliefs she already holds – namely, that the key is in either of the two drawers and that it's not in the first – to the conclusion that the key is in the second drawer.

The sense of “because” there, as I tried to urge, is one of rationally basing one’s conclusion on what she ends up doing.

From this it is a fairly short step to the conclusion that the above point about the availability of the normative explanation in Yaya’s case is indeed a point about what has to be the case for Yaya to count as a believer. For suppose we accept that any instance of believing has to involve a deliberation of some sort – that is, involved rationally basing one’s belief on other things one takes to be true –. Then since from the above observations we know that deliberation involves the kind of normative explanation at issue, it would seem to follow that any instance of believing is going to involve this kind of normative explanation. And since a condition of the availability of this kind of normative explanation is that one grasps the appropriate rational connections, Yaya, for instance, could only count as a believing that the key is in the second drawer if she grasps the logical implication in her beliefs and draws the appropriate inference.

Following this tradition, let us assume that the non-accidentality requirement is true. Now, in order to meet the non-accidentality requirement, it has been suggested that we must have the ability to “step back” and “reflect” on the commitments that we take on and therefore that we have some kind of “control” or “discretion” over our commitments.

The idea that we exercise a kind of “control” or “discretion” has been used not only to satisfy the non-accidentality requirement, but also for other purposes. For instance, some have used it to distinguish between mere animal and rational beings like us. Here is, for instance, Christine Korsgaard on the role of “stepping back” in rational agency:



A lower animal's attention is fixed on the world. Its perceptions are its beliefs and its desires are its will. It is engaged in conscious activities, but it is not conscious *of* them. ... But we human animals turn our attention on to our perceptions and desires themselves, on to our own mental activities, and we are conscious *of* them. That is why we can think about them.

And this sets us a problem no other animal has. It is the problem of the normative. For our capacity to turn our attention on to our own mental activities is also a capacity to distance ourselves from them, and to call them into question. I perceive, and I find myself with a powerful impulse to believe. But I back up and bring that impulse into view and then I have a certain distance. Now the impulse doesn't dominate me and now I have a problem. Shall I believe? Is this perception really a *reason* to believe? ... The reflective mind cannot settle for perception and desire, not just as such. It needs a reason. Otherwise, at least as long as it reflects, it cannot commit itself or go forward ([Korsgaard, 1996](#), 92-3).

Others have used the idea of control or discretion over our beliefs to account for the apparent fact that our beliefs are "transparent" to us in the sense that we are normally in a position to know what we believe.<sup>6</sup>

As useful and innocuous as this general idea might seem, however, it seems that applied to the case of belief, it generates some serious challenges. For, as ([Williams, 1973](#)) famously

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<sup>6</sup>See, for instance, ([Moran, 2011](#)). See ([Boyle, 2011](#)) for further discussion.

argues, there doesn't seem to be any sense in which I have direct or voluntary control over what I believe. If I see a cup on the table, under normal circumstances, I seem to simply find myself with the belief that there's cup on the table. I couldn't, for instance, decide "at will" that the cup isn't on the table, even under circumstances which I would have very good reasons to believe so – for instance, if believing that the cup isn't on the table would save a friend from certain death. If the evidence is conclusive, I seem to have no option but to believe. So, the idea that I might decide or will to believe seems to be completely out of place when it comes to believing.<sup>7</sup>

If we can't believe at will, however, then in what sense exactly do we have control over our beliefs? How can we make good on this idea that I take on the commitments that I do in believing by having some kind of control or discretion over those commitments?

One reaction here is to simply give up on the idea that we have any kind of control or discretion in believing things. However, I think to do that at this stage is premature. I think there's something right about the idea that we somehow have a kind of doxastic discretion and I want to see it through just a bit further in the hopes that we can come closer to discovering the conditions for possessing a doxastic commitment.

In the next two subsections, I consider two models of how we might exercise control when we believe. I argue that only one of these, i.e., what I will label the Active Belief model, is plausible. After further elaboration of the Active Belief model, I explore its bearing on the

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<sup>7</sup>Voluntarism about belief: i.e., the idea that our beliefs are under voluntary control, is a minority view but it has it's own defenders. For instance, see ([Steup, 2008](#)).

satisfaction conditions of the commitments one takes on through the exercise of this kind of control. I argue that the satisfaction conditions of one's doxastic commitments are not only different from their possession conditions (although not entirely unrelated) – a result we have already seen good reasons to accept – but also that they are independently *determined*. I thus show that the Active Belief model is neutral with respect to the question of what it is that determines the satisfaction conditions of one's doxastic commitments.

### 5.3.1 Resultant Model

Short of giving up on the idea that we have any kind of discretion in belief because we can't believe at will, one might suggest that perhaps we have discretion over other things that we do which result in "forming" or "producing" a belief. This view is supported by the innocuous observation that we do seem capable of deciding to *deliberate* about what to believe. I might wonder about going from point A to point B and I might decide to deliberate about which route is the best. What's more, deliberating about what to believe is a standard way of arriving at a belief. So, the suggestion is that belief is not itself an activity on which we have direct control, but a state which one comes to have as a result of engaging in other activities such as deliberating, judging, or forming the belief.

The distinctive characteristic of this view is that it stipulates a temporal distance between my belief-forming activities and what they result in, namely, a standing condition of the believer, the belief itself. So, the significance of thinking of belief as a *state*, for this view, is that it is temporally separate from the activities in which I engage in order to form the belief. Let us call this the Resultant Model of believing.

An initial problem for this view is that while it goes some way to accommodate the idea that beliefs can't be accidental, it doesn't do it complete justice. Recall that according to our initial gloss on the non-accidentality of belief, Yaya's belief, for instance, cannot be normatively explained to be as it should be by appeal to logic, unless she believes what she does *because* of the logical laws. The Resultant Model now adds a twist: the role of logical laws is temporally prior to her belief and helps to install the belief. Thus, on this view, the "because" in our gloss on non-accidentality has a distinctively causal flavor.<sup>8</sup> Yaya deliberates about what she already believes, and given the logical consequences of her beliefs, she ends up with a belief that the key is in the second drawer. Notice, however, that the issue at hand is to explain why Yaya's belief is as it *should* be in light of the connection she sees between the belief she already holds and her conclusion. However, all that the Resultant Model seems to provide is an explanation of how Yaya *actually* comes to have the belief that she has. The Resultant Model, thus, seems to fail to do justice to the original idea behind non-accidentality of belief. Allow me to explain.

Suppose you encounter a child who comes to have a reliable ability to recite the even numbers less than 18 by being exposed to a regular repetition of these numbers in a song she listens to in the beginning of her favorite TV program.<sup>9</sup> It is true that when the child recites these numbers, she is conforming to the rule of "start from 2, say every other one, and stop at

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<sup>8</sup>Perhaps there is room for a notion of simultaneous causation. In that case, the Resultant Model is not a causal account. What's crucial about the Resultant Model is that it stipulates a *temporal* distance between the deliberation or judgment, on the one hand, and the belief, on the other.

<sup>9</sup>This example and the ensuing discussion is inspired by ([Haase, 2009](#)).

18", and it is likewise true that her going on as she does is *caused* by this rule, as it or something like it is causally in play in the original song. However, there's also a clear sense in which this rule doesn't do anything to explain why what the child does is as it *should* be. After all, when the child recites these numbers, she doesn't in any sense use a kind of algebraic knowledge by appeal to the rule "start from 2, say every other one, and stop at 18"; she is rather singing the theme song of her favorite show. It's the song that dictates what is or isn't correct for her to do, not her algebraic rule. The trouble for the Resultant Model is that this state of affairs is entirely compatible with the algebraic rule playing a causal role in bringing about the child's beliefs and behavior. So, even though the principle can play a causal role, it doesn't enter the normative explanation of her beliefs and behavior because it doesn't have the right kind of connection to them. And so the Resultant Model seems to fall short of a full vindication of the non-accidentality of beliefs.

One might object that this is not a fair criticism of the Resultant Model, because, according to the correct interpretation of the model, it is one's *deliberation* that precedes the belief and causally affects it. So, one might reasonably wonder if it should worry the Resultant Model that the interpretation that stipulates a normative explanatory role for some abstract laws or principles is unsatisfactory. The proponent of this interpretation of the Resultant Model might agree that the interpretation that doesn't reserve a proper place for deliberative acts of the believer doesn't do justice to the non-accidentality constraint. Nevertheless, they might insist that that doesn't speak against the correct interpretation. According to this proponent of the view, what precedes the belief and causes it is one's deliberation, which, in turn, presupposes

a *grasp* of certain principles of deliberation – which arguably include the logical laws. If we note this feature of the Resultant Model, the objection continues, we can see that causes are in fact sufficient for normative explanation of one's beliefs and behaviors and so we can after all vindicate the non-accidentality requirement.

This move, however, fails to salvage the Resultant Model. For even if we allow that it is somehow the grasp of the rules that precede the belief, the temporal distance that the Resultant Model places between the things over which one has direct control and one's beliefs means that the view cannot account for some of the basic structural features of the commitments one takes on as a believer. Allow me to explain.

The central feature of belief, which I have been focusing on throughout this and the previous chapter is that as believers we have a practice of taking on certain commitments. For instance, as I've highlighted before, when I believe that the bird I see outside of my window is a finch, I thereby commit to denying that it is a canary. But just as the forward-looking consequences of my beliefs can be commitments that I take on, the backward-looking reasons for which I come to hold them, too, are part of the commitments I take on. So, in believing that the bird I see in the window is a finch, I likewise commit to providing sufficient reasons for why I hold the belief. We can put the point by saying that I commit to answering the question "why?" when appropriately asked. Yaya, for instance, takes on the commitment to answer the why-question when she comes to believe that the key is in the second drawer. If I ask her why she believes that the key is in the second drawer, she takes it upon herself to answer the question by providing reasons that she took to speak in favor of holding that belief. Of course,

she might or might not be able to give a satisfactory answer to my question. However, she does accept the legitimacy of the question, which, in turn, presupposes that she has taken on the commitment to provide reasons for her belief.

Now, this observation about the structure of doxastic commitments, I think, creates a problem for the Resultant Model. For on the Resultant model the only answer available to Yaya when I ask her why she believes that the key is in the second drawer is to appeal to things which she believed in the *past*. For instance, she can say that she believed that the key is in either of the two drawers and that it's not in the first – or that she believed that these beliefs imply that the key is in the second. The best she can do in response to my why-question is to cite the causal origins of her belief at an earlier time – albeit a deliberative episode. However, the relevant sense of the why-question here is not asking about how her belief originated. It is not asking what she found to be a good reason to let the belief come to be at an earlier time. It is rather asking why she thinks the belief is correct *now*. The commitment she takes on, in other words, is one of speaking to the reasons why she believes what she does now.<sup>10</sup> And that seems to be something that is not available on the Resultant Model.

To be sure, sometimes I can cite my past beliefs as a kind of normative explanation of my current beliefs. For instance, suppose I complete a difficult proof of P in an advanced logic class, when the ideas are fresh and I have sufficient practice with similar proofs. At a later point in time, I might just appeal to my having proved it back then in order to explain why

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<sup>10</sup>I borrow this argument from (Boyle, 2011).

I now believe P. I might say “Well, I don’t quite recall how I did it, but, here, I did prove P. And I’m sure that I knew what I was doing. So, P”. Unless there are any countervailing considerations, it seems that at least in some cases my past belief can figure in a normative explanation of my current beliefs.

There are two points that I want to make about this sort of example. First, and most importantly, even if such cases are correctly described as cases of my past beliefs providing a normative explanation of why my current beliefs are as they should be, that is clearly not the kind of situation that we have in most typical cases including with Yaya. Typically, I don’t need any appeal to my past beliefs or deliberation to decide on what to believe now. If I believe that the cup in front of me is hot, it’s because I see now that it is hot – not because, for instance, I saw a few moments ago that it was hot and I know that the average temperature of a coffee cup doesn’t change significantly from this moment to the next in normal conditions.

Moreover – and this is my second point – it’s not clear if the Resultant Model can bridge the temporal gap in any way. One strategy would be to suggest that there are additional beliefs that can help to bridge the gap. For instance, it might be suggested that I must believe that my past performance was reliable and that no intervening evidence has surfaced that would speak against the belief.<sup>11</sup> In most typical cases of belief, however, no such belief is necessary. I don’t – nor do I need to – cite anything about my reliability in forming beliefs about what

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<sup>11</sup>In epistemology, these are labeled “undercutting” and “rebutting” defeat respectively. My thought here can be put by saying that plausibly a condition of being about to appeal to past beliefs to justify current one’s is that one believes that there are no undercutting or rebutting defeaters.



I see in order to support my belief that the cup is hot. Similarly, in Yaya's case, she need not appeal to her past reliability or any intervening evidence in order to conclude now that the key is in the second drawer.

To go back to the proof example, it seems that it's not simply my proving in the past that P which provides me with a reason to now believe that P; it is rather my having proved P *plus* my current belief that my having proved it is reliable and that no intervening evidence has emerged that would speak against P. If I didn't have these extra beliefs, it seems that I don't have a reason to believe that P on the basis of my past proof. So, even though on the surface this might be a case of a past deliberation providing a reason, in fact it is plausibly still a case in which my current deliberation plays an indispensable role in the normative explanation of my believing that P. It's just that in this example my current deliberation is about a past deliberation of mine and whether the results of that deliberation are reliable for determining whether P.

Alternatively, it might be suggested that one can have a *prima facie* justification to believe the things that one believes in the past. The thought is that one needs no additional knowledge or belief of the absence of defeaters in order to be able base one's current beliefs on her past beliefs; instead basing one's current beliefs on the old ones is something that one can do by default, as it were. If this is true, then one can cite one's past beliefs in a normative explanation of why one currently holds a given belief. While I have no immediate objections to this suggestion, I think that it's somewhat of a mystery what this "*prima facie* justification" really amounts to. The alternative view which I will explore in the next section comes very close to

this suggestion. Indeed, I think that that view and the interpretation of the Resultant Model on the table now are largely verbal variants of each other and their differences can be ignored.

Barring something like this final interpretation of the Resultant Model, however, I hope to have shown that the view has the unattractive consequence that a believer cannot ever provide a satisfactory answer to the appropriate why-questions. It's always a different question that she would answer: namely, how the belief originated. As a consequence, these interpretations of the Resultant Model cannot account for the observation that we do take on the commitment to provide sufficient reasons for why we hold the beliefs that we do. As we observed earlier, however, we do have a general practice of taking on such a commitment. Quite generally, if we can never do  $\phi$ , it would be bizarre if we have a practice of committing to  $\phi$ . And, for a practice as universal as taking on the commitment to provide reasons for one's belief, it would be next to unintelligible to think that we are never able to actually make good on it. I submit that the existence of this universal practice is reason to reject any view according to which one cannot ever satisfy the commitments one takes on.

### 5.3.2 Active Model

In recent years, a number of authors have argued for an alternative view according to which our beliefs are directly under our control. Let us call this view the "Active Model".<sup>12</sup> This view rejects the underlying assumption of the Resultant Model – that there is a temporal

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<sup>12</sup>See (Boyle, 2009), (Boyle, 2011), (McHugh, 2015), and (Hieronymi, 2006). See also (Fernandez, 2016), whose main focus is on practical reasoning. However, he draws an analogy between practical and theoretical reasoning, and he thinks both should be modeled by what he calls Aristotelianism. Generally speaking, it seems that the authors who accept the Active Model see a strong analogy between practical and theoretical reasoning. An exception is (McHugh, 2015).

gap between one's deliberation and one's holding a belief. Instead, according to the Active Model, believing itself is an activity of a rational agent which requires deliberation not merely as an efficient cause, but as something that "maintains" the belief and identifies it as what it is. Here is Boyle giving voice to the basic idea behind the view:

[The] claim is not that to believe something is to be occurrently up to something; it is that being occurrently up to something is not the only species of the genus: act, exercise of agency. ... The fact that I can hold a belief without doing anything in this sense does not rule out the idea that holding a belief is an act, an exercise of agency, if there can be such a thing as an exercise of agency that does not take the form of an occurrent process or event. (Boyle, 2009, 137-8)

There are at least two ways in which the characterization of holding belief in terms of the exercise of "rational agency" or "rational capacity" is significant. First, as I've mentioned before, it marks the rejection of the Resultant Model. Second, and more importantly, it allows us to see that the source of the commitments that I have as a believer is ultimately my capacity for believing. To go back to an example which we have already encountered, in believing that the bird in my window is a finch, I possess certain commitments – for instance, to deny that the bird is a canary and so on. The Active Model emphasizes that the source of these commitments, what it is in virtue of which I have, for instance, the commitment that the bird is not a canary, is my exercising my rational capacity. Anyone seeing the bird in the window is in a position to know that it's a canary and not a finch. But as a bird enthusiast – i.e., someone whose rational capacities allows him to see the difference between a finch and a canary – I alone see that the bird is a canary and not a finch. It is my exercise of my capacity as a bird

enthusiast that allows me to take on the commitment to deny that the bird is a finch, if the issue ever comes up.

Similarly, in believing that the key is in the second drawer, we observed that Yaya commits to defending her belief by providing reasons for it. According to the Active Model, this is not a commitment Yaya has because of some external conditions; Rather she possesses this commitment because she exercise her rational capacity to take on the commitment – she possesses the normative standing of a believer. It’s her taking on the commitment (as an exercise of her rational capacity), which makes it a reality for her.

Despite these features, which go some way in helping to conceive of believing as essentially involving taking on commitments, however, I agree with ([Haase, 2009](#)), who claims that the words ‘capacity’, ‘power’, and their ilk can be rather distracting. For they seem to contain a solution to the problem of how believing is reflective and “under our control”, where they largely seem to restate the puzzle in other words. What sense can be made of the idea of an exercise of a capacity such that believing, understood as something that essentially involves taking on commitments in the sense that I have highlighted here, is an example of?

This is a large and difficult question and I don’t intend to tackle it head-on any further than I already have.<sup>13</sup> Instead, I want to focus on one suggestion that can help in connection to our discussion of possession conditions. Although I don’t think this can amount to a full treatment of the challenge the Active Model takes on, I do think that it provides the bases

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<sup>13</sup>The idea that thinking and knowledge are actualizations of a rational capacity has obvious Aristotelian roots. For a historically sensitive treatment of this idea see ([Kern, 2017](#)).

for an account and I hope to utilize it in getting clear on the possession conditions of the commitments involved in believing understood as a normative standing.

One desideratum for the Active Model, as we have observed before, is that the exercise of one's rational capacity, which is supposed to be at the heart of the account, should not amount to some explicit 'intending' or 'willing' such that the exercise is under one's direct or voluntary control. In order to handle this worry, it has been suggested that we can understand exercising one's rational capacity as nothing but entering a normative domain which makes one susceptible to give and ask for reasons. Drawing an analogy with the practical case, for instance, Boyle says:

The thing to notice is the striking similarity between the questions we can answer about the actions in which we are presently engaged and the questions we can answer about the beliefs we presently hold. The questions in both cases concern, not our past activities or our future prospects, but our ongoing present. They are questions that address us "in medias res," so to speak: in the midst of doing or believing. In each case, we are normally able, without self-observation, to answer both a "what?"-question and a "why?"-question about an aspect of our present situation. And, in each case, these questions appear to presuppose that we are not merely aware of this situation but in charge of it. ... In each case, we could say, the continuing existence of a certain sort of situation is grounded – not just causally, but constitutively – in my continuing endorsement of the existence of a situation of that sort. (140)

Recall an observation which we made earlier in section §5.3.1. As I explained then, just as accepting the forward-looking consequences of my beliefs can be commitments that I take on, accepting the backward-looking reasons for which I come to hold them, too, are part of the commitments I take on. As Boyle makes it clear here, this is true not because I willingly or intentionally do something which amounts to my taking on the commitment such that I can then

decide to do otherwise; it is true, rather, because the question “why do you hold the belief?” is always a legitimate question to ask. The legitimacy of the question, according to this gloss, presupposes and grounds a certain relationship which I stand to my doxastic commitments, namely, that of possessing the normative standing of “taking on” these commitments.<sup>14</sup>

This gives us a distinct sense in which one can “take on” a commitment, including those involved in the normative standing of believing. Yaya, for instance, takes on the commitments involved in believing that the key is in the second drawer in the sense that the question of “why?” is always a legitimate question to ask her. This is different from the kind of “taking on” which is involved, say, in one’s commitment to pay one’s rent on-time every month. While the latter is something that is under one’s voluntary control, the former isn’t. Yet these are both commitments that the relevant agents take on albeit in different ways.<sup>15</sup>

It is worth emphasizing a point that I’ve made before in the previous chapter in §4.4.1. To say that an essential condition of possessing the normative standing of believing is the kind of exercise of one’s rational capacity that I have tried to highlight in these pages is not

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<sup>14</sup>Among the commentators on Kant on normativity of logic one can distinguish two strands of interpretation about the claim that logic is “constitutive” of thinking. First are those who think that this should be understood to mean that a representational activity can count as thinking only if it is *evaluable* in light of the logical laws (see, for instance, (MacFarlane, 2002) and (Leech, 2015)). Call this view “normativism”. The second stand, by contrast, holds that the Kantian idea should be understood to mean that a representational activity can only count as thinking if it perfectly *conforms* to the laws of logic (see, for instance, (Conant, 1992) and (Tolley, 2008)). Call this view “formalism”. For further discussion of these issues see (Nunez, 2018). The interpretation of the Active Model which we are considering right now effectively sides with the normativists in that debate as it construes the idea of “taking on” in terms of being evaluable in the sense of being always in principle susceptible to the appropriate why-question.

<sup>15</sup>See (Boyle, 2009) for a similar interpretation. As Boyle points out, this view can be traced back to (Anscombe, 2000), which puts it forward as an general account of action in progress.

to deny that there are further necessary conditions on possessing the normative commitment. Specifically, it is not to deny that there may be a degree to which the satisfaction conditions of one's doxastic commitments must be met before one possesses it. The point is rather that there is a more fundamental conceptual fact about possessing normative commitments which is captured by the idea of exercise of a rational capacity.

In the remainder of the chapter, I want to explore the significance of the Active Model for the distinction I've made between possession and satisfaction conditions of normative standings. My hope is that this discussion brings some clarity to the suggestion that believing is an activity of the believer and ultimately helps to fill out some of the rough edges of the constitutive account of the normativity of logic.

### **5.3.3 Satisfaction-Determining Conditions**

Let us assume that believing should be understood on the Active Model. According to this account, what's required to possess the doxastic commitments involved in a belief is to actively take on the commitment by exercising one's rational capacity as a believer. But what about the satisfaction conditions of one's doxastic commitments? Does the Active Model take a stance on this?

One might think that the answer is "Yes". For it would seem that quite generally in order for me to take on a commitment, I would have to know what I am committing myself to. And that would seem to imply that the satisfaction conditions of one's doxastic commitments would have to be settled in order for me to count as believing and therefore committed to them. One might, thus, be led to the conclusion that the conditions that determine the satisfaction

conditions of one's doxastic commitments (what we might call the "satisfaction-determining conditions" of one's commitments for short) are just those conditions under which one possesses the commitment – namely, one's active taking on the commitment as an exercise of one's rational capacity. In short, one might think that the satisfaction-determining conditions of one's doxastic commitment are just the possession conditions of the normative standing that involves these commitments.

Focusing on cases in which one possesses a normative standing by way of endorsing the commitments involved in it would seem to enforce this thought. Consider, for instance, the referee case. It might seem plausible that referees generally come to possess their normative standing by explicitly endorsing the rules of the game. It might be, for instance, that one studies the book of rules and passes certain tests on it; or it might be that one signs off on an acknowledgement statement of some sort. In such cases, it seems that in the very endorsement of a commitment the satisfaction conditions of the commitment are settled (think the rule of offside in soccer, for instance). In other words, in such cases, the possession conditions would seem to be what we might label the "satisfaction-determining" conditions of the commitments involved in the normative standing.

Indeed, one of the most prominent defenders of the Active Model seems to explicitly endorse this view. Here is ([Boyle, 2009](#)) giving voice to an unmistakable statement of the Active Model of believing:

My presenting P as to-be-believed, in actualization of a capacity to believe what

I represent as to-be-believed, is the ground of my presently believing that P. ...



I constitute a present and persisting situation through persistently *representing a certain content as acceptable*. ... And where I exercise this sort of capacity, I should surely count as an agent: ... I am the ground of the present actuality of something through endorsing the actuality of that sort of thing (142; emphasis added)

Note the emphasized text in this quote. Boyle suggests that what's required for one to possess a doxastic commitment is to "represent a certain content as acceptable". What Boyle is calling "the content" of one's doxastic commitments is (at least in part) what I have been calling their satisfaction conditions. And thus it seems that, according to Boyle, my possessing the normative standing of believing P presupposes a representation of the satisfaction conditions of the commitments involved in believing P as to be satisfied. Boyle's commitment to the Active Model implies that the representation of the content as to-be-believed is "not an act that precedes [one's] belief and produces it"; instead "the very existence of [one's] belief that P is constituted by her persisting assent to P" (143). He, thus, concludes that one's "believing that P ... just is her enduring act of *holding* P true, and hence to-be-believed" (*ibid.*). Given my framework, Boyle is effectively saying that believing that P just is in part to represent the satisfaction conditions of believing that P as to be satisfied.

Now, I don't mean to suggest that it is indeed Boyle's considered view that the possession conditions of one's doxastic commitments are also the satisfaction-determining conditions of those commitments. But from what we've seen it seems like this an implicit feature of his view. For what else can "to represent the satisfaction conditions of believing that P as to be believed" be if not a way to determine the satisfaction conditions of believing that P? I suspect that in

the end Boyle would not be happy with this result. What follows is, accordingly, only meant to show that he doesn't unambiguously endorse what I take to be the correct view.

In order to see what is wrong with the view that identifies the possession and satisfaction-determining conditions of commitments, let us look at the referee example with more care. The original example, recall, was meant to show that the possession and satisfaction conditions are distinct. Above, however, I made the additional observation that the example might be taken to show another identity relation: that between possession and satisfaction-determining conditions. I think that this is a mistake and we can see this if we examine the example further.

Imagine a football referee who is also an avid explorer. In 1989 he sets off on a 5-year journey into the Icelandic Westfjords. Upon returning home, having gone through his life-changing and adventurous trip, he seeks immediate employment and gets assigned to an official junior league game. Meanwhile a change in the offside rules has been introduced in 1990. Before the changes took effect, one would be onside if there were two players between one and the goal (including the goalie). After the change, FIFA allows the offensive player to be even with the second-to-last defender. Now, it seems to me that in this case there can be little doubt about the referee's commitments: he is committed to stopping the game if a player is offside, where that now means that it's permissible for the offending player to be even with the second-to-last defender. And as a referee he has this commitment even though he has had no exposure to the changes and therefore cannot endorse the exact commitments involved in his normative standing.

Once we have this kind of example on the table, I think, it should be obvious that as a general account of how the satisfaction conditions of a normative standing are determined, the view that identified the possession conditions as the satisfaction-determining conditions is false. Just to take another example, consider games. A chess player plays no more of a role in determining the satisfaction conditions of her normative standing than she does in determining her opponent's moves. And yet she does fully take on the commitment to uphold the rules of chess by exercising her capacity as a chess player. Even if she doesn't endorse, say, the rules that govern the movement of the rook (perhaps because there is some slight change in the rules which she is ignorant of), she is still committed to these rules in virtue of entering the game and possessing the normative standing of being a chess player. In general, then, we can say that someone may possess a normative standing without endorsing the exact commitments involved in it.

Applied in the case of belief, we get a rejection of the idea that in order for my belief to count as a belief that P I must "represent the satisfaction conditions of believing that P as to be believed". If we agree that the possession conditions and the satisfaction-determining conditions of my doxastic commitments can come apart, then there is no reason to think that my possessing the normative standing of believing that P would require that the satisfaction conditions of my believing be already settled. It could be that I take on the doxastic commitments and therefore count as believing without the full satisfaction conditions of my belief being settled.

It is worth noting that this observation gives rise to a third kind of “error” that we can lay alongside the other two kinds of error which encountered in the previous chapter, namely, “error from obstruction” and “error from skepticism”. We might call this new kind of error “error by ignorance”. As we can see from the case of our explorer referee, the constitutive account is entirely consistent with the possibility that one deviates from the constitutive norms of an enterprise because of local ignorance about the rules. This is explained by the fact that the constitutive account is merely committed to there not being a case of believing unless one takes on the commitments involved in believing. There is nothing in that claim about recognizing the exact satisfaction conditions of the commitments. As the explorer referee case shows, one can take on a commitment without such a recognition, leaving open the possibility of deviating from the norms due to ignorance of the norms.

What seems to be responsible for this is that the satisfaction conditions are generally much more fine-grained than the possession conditions. To possess the normative standing of a referee, supposing that the Active Model extends to this case, is for the referee to take steps, which would make him susceptible to the appropriate why-questions. As I’ve noted already, these can be things as simple as putting on a certain item of clothing or more complex things like passing a certain test. In contrast, in order to satisfy the commitments involved with being a referee much more specific things have to be the case. For instance, it must be the case that there are fouls on the field if and only if the referee calls them out. If this is true, then it shouldn’t be surprising that the possession conditions of a normative standing are not sufficient to determine the satisfaction conditions of all the commitments involved in it.

The default view, then, should be one that doesn't assume a very strong relation between the possession and the satisfaction-determining conditions. We thus have the conceptual space for a view of belief according to which one's standing as a believer (and therefore as having certain commitments) is grounded in one's actively taking on certain commitments (as the Active Model suggests), and yet the exact content of one's doxastic commitments (and therefore the exact content of one's belief) is not 'up to' one in any way. What this means is that we can adopt the constitutive response which I've been urging to the question of the source of the normativity of logical norms, and still see the space for the logico-epistemological work on the exact content of these basic norms. The thought is that I possess my normative standing as a believer by taking on certain commitments on the lines suggested by the Active Model, but just as the referee can take on the commitments whose content are not up to him, the doxastic commitments I take on are open-ended in that the exact conditions under which they would be satisfied are beyond anything I might do – including things that I do to take them on – or be in a position to know.

To be clear, all of this is not to say that there may be some important or interesting connection between the possession and satisfaction-determining conditions of normative standings. For all I've said, it might be that the possession conditions of, say, being a referee, are enough to settle some rough boundaries on what the satisfaction conditions of the commitments involved in being a referee are. For instance, it might be that one cannot be a referee unless one recognizes and thereby settles roughly what being offside means. However, my point remains that the possession conditions are not enough to settle the *exact* conditions under which all the

commitments involved in a normative commitment are satisfied. Thus, even though it might be that the referee has to have a rough idea of what offside is in virtue of his role as a referee, it is still possible for the referee to be in no position to know or endorse the exact conditions under which his commitments are satisfied.

But if the satisfaction conditions aren't determined by the possession conditions, what does determine them? In the referee case, the answer seems clear: What determines the content of the referee's commitments – for instance, to stop the play if a player is offside – is the decisions made by the FIFA and the soccer community which the referee belongs to more generally. Note, however, that despite the fact that the satisfaction conditions of being a referee are determined in this way, this doesn't take anything away from our understanding of the referee's active role in making it the case that he possesses the status of a referee.

What about the case of belief? Like in the case of the referee, I think an attractive proposal is the broader doxastic practices which I engage in as a believer. In order to defend this suggestion, I turn in the next section to offering an account of the satisfaction conditions of the commitments I take on as a believer, which draw on the broader doxastic practices surrounding my believing. I argue that logic can be understood as the enterprise that is in the business of making explicit the satisfaction conditions of the commitments one takes on as believer. If I succeed, then logic is what we should look to find out about the exact satisfaction conditions of the commitments we take on as believers.

One final note before we launch into the explicative account of logic. While I don't take what I've said so far in this chapter to be a knock down argument for understanding belief

as an exercise of a rational capacity on the lines suggested by the Active Model, I do think that we now have a good reason to think of belief in this way. My overarching argument in the previous chapters has been that in order to account for the normativity of logic we must accept the intrinsic view (Chapters 2 and 3) and that the most promising way of making sense of the intrinsic view is in terms of the constitutive account (Chapter 4). In so far as understanding belief as an exercise of a rational capacity provides us with a more definite picture of the constitutive account, I believe, we have a clear incentive to understand belief in this way.

#### 5.4 Explicative Account of Logic

We now come to the second of the two tasks which I identified for the intrinsic view in chapter 4 – i.e., the task of accounting for how anything resembling logic from our modern perspective can be viewed as an explication of the norms which are constitutive of belief. What I will have to say in this section is largely inspired by Robert Brandom’s work on what he labels the project of “logical expressivism”.

The plan is as follows. I first introduce a partial, pragmatically-centered sketch of the notion of logical validity, i.e., an account of logical validity that builds on and assumes a primitive practice or ability to identify arguments as good or bad. To be clear, what’s assumed is a practice or ability to merely categorize arguments as those that are good and those that are bad; not to do so correctly. This account, however, is partial in that it only works if we have an independent way of demarcating what makes a bit of vocabulary logical. In the philosophy of logic literature, this latter question is often referred to as the “demarcation question” of logic.

The central aim of this section is to offer an answer to the demarcation question that begins squarely with the norms implicated in our believing practices or abilities. According to this account, logical vocabulary is that which allows us to say what it is one must do in order to count as believing at all: It helps to explicate the norms that are already implicit in any act of believing.<sup>16</sup>

If the answer to the demarcation question is successful, then, together with the sketch of the pragmatically-centered notion of logical consequence that I offer in the beginning, it gives us a complete account of logical consequence. But that's not all; it's an account of logic, which also helps to explicate the norms and commitments that one takes on as a believer (as its vocabulary is demarcated as precisely those that allow this kind of explication). It tells us what commitments one takes on in virtue of counting as a believer. In other words, it is an account which lays out the central *satisfaction conditions* of the commitments one takes on when one believes anything whatsoever.

#### 5.4.1 A Partial Account of Validity

Around the middle of the twentieth century, (Quine, 1986), (Putnam, 1972), and others offered a tool which can be used to neatly capture the notoriously difficult notion of validity in virtue of “logical form”, given an understanding of the distinction between “logical”

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<sup>16</sup>As we shall see, the explicative role of logical vocabulary is in fact not sufficient on its own to demarcate it fully; we need the idea of “algorithmic elaboration” to complete the account. I will return to this issue below.



and “non-logical” terms. The tool is called “substitution invariance”..<sup>17</sup> The idea is that an inference is logically valid, or a claim is logically true (in virtue of its form) if two things hold:

1. The inference is good, or the claim is true
2. The inference cannot be turned into a bad inference or the claim into a false one by arbitrary substitution of non-logical terms.

Consider the following two sentences:

- (a) if something is poisonous and a snake, then it’s a snake
- (b) if something is poisonous and a snake, then it’s an animal

While we want (a) to count as a logical truth, we don’t want to say the same of (b). The difference doesn’t seem to be due to either the modal status or our epistemological access: they are both necessarily true and knowable *a priori* (provided that we have a sufficient grasp of the meaning of our words). One might be inclined to say that the difference is that one is true in virtue of “logical form,” whereas the other isn’t. But what is “logical form” anyway?

Substitution invariance can help to answer that question. The claim that “if something is poisonous and a snake, then it’s a snake” is logically true because, first, it’s true, and, second, no matter what phrase (of the same grammatical kind) we put in the place of the non-logical

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<sup>17</sup>They followed (Tarski, 2002). The roots of the idea goes back at least to Bolzano. See (MacFarlane, 2015). As MacFarlane emphasizes, historically the very similar idea of “permutation invariance” has been offered as a potential answer to the so-called “demarcation question”, which I will discuss below. However, we can ignore the complications of that strand as we are considering an alternative proposal about the demarcation question and we are utilizing the notion of “substitution invariance”, in the way I rehearse below, to offer an account of logical validity.

terms, namely, 'poisonous' and 'snake', the claim remains true. In contrast, while the claim that "if something is poisonous and a snake, then it's an animal" is true, many substitutions of non-logical terms, i.e., 'poisonous', 'snake', and 'animal', would not be true. For instance, "if something is a poisonous dart, then it's an animal" is false. We can, thus, simply identify "logical form" with invariance under arbitrary substitution of non-logical terms.

Substitution invariance fits well with the intrinsic view of the source of normativity as it allows for an account of logical validity that can emerge not from some realm concerned with abstracta, but from the very practices or abilities that we all engage in. What it requires is not a theoretical idea of what a model or proof is, but simply a constellation of basic practice and ability to identify arguments as good or bad.

As neat as the idea of substitution invariance might appear at first, as I mentioned before, it presupposes a demarcation of logical from non-logical terms. To see this, notice that we can use the bare idea of substitution invariance to come up with all kinds of "formal" validities depending on which vocabularies we fix. For instance, as (Brandom, 2001, 55) argues, if we fix, say, the *theological* vocabulary we can use substitution invariance under substitution of non-*theological* terms to construct a notion of validity or truth in virtue of *theological* form. For instance, fixing "God says that" as a theological term, we can say that the inference from "God says that thou shalt not kill" to "thou shalt not kill" is valid in virtue of theological form since, first, it is a good inference, and, second, one cannot turn it into a bad inference by substituting "thou shalt not kill" for something else.

The moral is that while substitution invariance can be a valuable tool for distinguishing goodness of inference and truth in virtue of logical form, it is itself silent on the philosophical question of interest at bottom. What we need in order to get at the difference between our two sentences is not merely substitution invariance, but a clear way of demarcating logical from non-logical vocabulary.

#### 5.4.2 The Demarcation Question

([Brandom, 2010](#)) offers an attractive answer to the demarcation question, which fits perfectly with the constitutive account I have defended so far.<sup>18</sup> According to Brandom, what is characteristic of logical vocabulary is that it stands in a kind of what he calls “pragmatically mediated semantic relation” to any exercise of our discursive abilities.

Brandom frames his discussion by situating it within what he sees as the most prominent strand of analytic philosophy in the twentieth century. According to Brandom, this is roughly the attempt to somehow “reduce” a target vocabulary in terms of another, which is taken to be more fundamental or basic. For instance, consider the tradition of attempting to find a relation that holds between, on the one hand, the normative vocabulary, and, on the other, a naturalistic vocabulary such as the vocabulary of physics or natural science.

He offers “pragmatically mediated semantic relations” as an alternative to analysis, supervenience, and similar relations among vocabularies that are proposed in this reductive spirit. His basic idea is that instead of looking directly at vocabularies to find how they are related,

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<sup>18</sup>My discussion is based on chapter 2 of ([Brandom, 2010](#)).

as traditional attempts have done, a more attractive option is to look instead at the vocabularies' associated *practices or abilities* and try to find relations among the vocabularies in a round about way. The thought is that there are two levels to consider: (1) the semantic level where the vocabularies are situated, and, (2) the pragmatic level, where practices or abilities reside. We can find interesting relations that hold on the first level, Brandom's suggests, by finding relations that hold on the second.

So, just to give you a sense of the proposal, if to use a certain vocabulary,  $V_1$  involves certain practices or abilities,  $P_1$ , and there is a second vocabulary  $V_2$ , which can be used to describe the practices or abilities in  $P_1$ , then this gives us a handle on a relation between  $V_1$  and  $V_2$ : that of what Brandom labels being a *pragmatic metavocabulary* for the other. For instance, we can think of English as a pragmatic metavocabulary for the vocabulary of simple calculators: we can say in English what it is that calculators must do in order to, for instance, multiply 2 by 2 and output 4.

A more philosophically interesting example of a pragmatic metavocabulary is one that Brandom finds in (Price, 2004). Price argues that even if normative language cannot be reduced to descriptions, it might be possible to say in purely descriptive terms what it is that one must do in order to engage in normative talk.<sup>19</sup> This is another instance of a pragmatic metavocabulary in that, according to Price's proposal, one can specify in descriptive terms everything that one must do in order to use normative language.

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<sup>19</sup>Cited in (Brandom, 2010).

Brandom's answer to the demarcation question begins with the idea that there are certain basic practices or abilities that are involved in the use of any vocabulary whatsoever. By "use of a vocabulary" he has in mind any discursive activity. The paradigmatic example of such an activity for him is asserting or saying. But there is no reason to limit his account to linguistic activities. In particular, another perfectly legitimate example of a discursive activity is believing. Even though not part of Brandom's official account, I do think that Brandom would agree that believings deserve the title "discursive activity" as much as assertings or sayings do. It's important to note, however, that this does not require any particular view of the content of believings. As we can already see from the calculator example, the term "vocabulary" is flexible enough that it allows for various competing accounts of the content of believings. From here on out I switch freely between talking about discursive activities and believings, and I take liberty in transposing Brandom's account in terms of believings and the practices or abilities that are necessary for them.

Now, allowing for an extended notion of "use of a vocabulary" which would figure in believings, Brandom's starting point is a statement of our conclusion in §5.3: that there are certain practices or abilities that are involved in having any belief whatsoever. For instance, as I argued in §5.3.2, in order to even count as a believer one must take on entitlements and commitments. More specifically, believing presupposes the practice or ability to offer and ask for reasons.<sup>20</sup> Call these "inferential practices or abilities",  $P_{inf}$ .

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<sup>20</sup>Which entitlements and commitments, of course, will depend on the content of the believing. For instance, I have a commitment to believe that something is a plant, if I believe that it is a tree. However,

Brandom observes that we can think of the logical vocabulary as that which helps us say what it is that we do when we engage in these inferential practices or exercise our inferential abilities:

Saying that if something is copper then it conducts electricity is a new way of doing – by saying – what one was doing before by endorsing the material inference from “That is copper” to “That conducts electricity.” Conditionals make explicit something that otherwise was implicit in the practical sorting of non-logical inferences into good and bad. Where before one could only in practice take or treat inferences as good or bad, after the ... introduction of conditionals one can endorse or reject the inference by explicitly saying something, by asserting or denying the corresponding conditionals. What the conditional says explicitly is what one endorsed implicitly by doing what one did. The expressive role distinctive of conditionals whose use is elaborated in the way I have just specified is to codify inferences, to specify inferential practices-or-abilities, to explicate them, in the sense of making explicit something that was implicit in them. (45-6)

According to Brandom, this kind of explicative role is distinctive of not only the conditional, but all logical vocabulary. For instance, the negation, just to take another example, counts as a logical vocabulary because it allows us to say something that we can only do without the negation, namely, ruling something out.

But the logical vocabulary cannot be merely a pragmatic metavocabulary for our basic inferential practices. For this idea alone is not enough to account for the central role that the logical vocabulary plays in explicating exercises of inferential practices. In particular, and most importantly for my purposes here, unless we have something more to add to the account, logic could not be taken to explicate the central features of the norms and commitments that we take on as believers.

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since for any belief some such inferential commitment is necessary, we can say that generally for any exercise of a rational capacity including belief one takes on *some* inferential commitments.

To see this point, consider the first example of a pragmatic metavocabulary which I gave above, namely, that of English being a pragmatic metavocabulary for calculators. It is true that for any given operation of some calculator we may be able to accurately describe it using English (that's what it is for English to be a metavocabulary for calculators). But depending on how much detail one includes in one's description, it might, on the one hand, involve trivial things such as, for instance, the sensitivity of the buttons, say, or it might, on the other, ignore some of the crucial aspects such as a step in the calculations. There is, then, no guarantee that the English description reveals anything central or important about the calculations, if all we require is that it allow us to explicitly talk about the things that calculators do.

Our question, then, is what more do we need in order to ensure the universal relevance and applicability of logic? The answer that Brandom gives is interesting and novel. His thought is that if we look at the practices that are involved in using the logical vocabulary and the practices which they are meant to be a pragmatic metavocabulary for (i.e., the inferential practices which are involved in any believing whatsoever), we can find an interesting relation, which can explain why the logical vocabulary should be taken to be special. He labels this relation "algorithmic elaboration".

Before I explain this notion, allow me to take a moment to reiterate the strategy that Brandom is pursuing here. Recall that Brandom's target is to replace the traditional notions of analysis, supervenience, and reduction with a pragmatically sensitive notion. As we saw, he distinguishes between the semantic or discursive level and the pragmatic level. And we saw that we can find interesting relations between vocabularies by turning our focus to the prag-

matic level and how different vocabularies relate to a given practice. What Brandom is adding now with the idea of “algorithmic elaboration” is that we can go even further by exploring not only relations that practices, on the one hand, and vocabularies, on the other, stand to each other, but also the relations that practices stand to each other. The idea is that we can find relations on the level vocabularies that hold by way of the relations that the associated practices stand to each other. In other words, the suggestion is that we can discover interesting properties of vocabularies – in our case, the vocabulary of logic,  $V_{\log}$  – by descending to the level of pragmatics and examining how the practices which are explicated by the vocabulary – in our case,  $P_{\inf}$  – are related to the practices which are necessary for explicitly deploying that vocabulary (in belief). Call the latter  $P_{\log}$ .

What is “algorithmic elaboration”? Consider the ability to do long division. This is an ability that is made up of the more basic abilities to do subtraction and multiplication. If one has these more basic abilities, then all that one would need in order to do a long division is to exercise her basic abilities in a certain order. “Algorithmic elaboration” is the kind of relation that the ability to do long division stands to with respect to the more basic abilities to do subtraction and multiplication. More generally, when we have a collection of practices or abilities which can be arranged in a series to amount to a new practice or ability, we can say that the latter is an algorithmic elaboration from the starting practices or abilities.

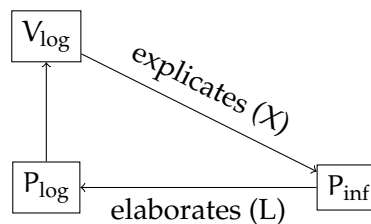
With algorithmic elaboration we get a specific sense of how it might be that some practice or ability is *in principle* sufficient to engage in some other practice or ability. For instance, we can say that the ability to do multiplication and subtraction is *in principle* sufficient for



the ability to do long division, because the latter can be algorithmically elaborated from the former. The flip-side of the idea of “in principle sufficiency” is “being implicit in”. So, just as we can now, using the idea of algorithmic elaboration, talk of the ability to do multiplication and subtraction being in principle sufficient for the ability to do long division, we can also talk about the ability to do long division being “implicit” in one’s ability to do multiplication and subtraction.

Returning to the case of logic, Brandom’s contention is that the practices or abilities,  $P_{\log}$ , that one would need in order to hold beliefs which explicitly utilize the logical vocabulary,  $V_{\log}$ , are nothing but an algorithmic elaboration of the basic inferential practices that are implicated in all believings,  $P_{\inf}$ . In other words, having  $P_{\inf}$  is all that one in principle needs in order to have  $P_{\log}$ . If this is true, then this allows us to understand a clear sense in which (1) the ability to use the logical in believings is *implicit* in one’s ability to do the things that one needs to be able to do in order to count as a believer at all, and (2) the latter as *in principle sufficient* for the former.

Notice that we now have a nice triangle. The nodes of the triangle are: logical vocabulary ( $V_{\log}$ ), the basic inferential practices ( $P_{\inf}$ ), and the practices that suffice for the deployment of the logical vocabulary ( $P_{\log}$ ).  $P_{\log}$  is the “algorithmic elaboration” of  $P_{\inf}$ ;  $P_{\log}$  are the practices involved in the explicit use of  $V_{\log}$ ; and  $V_{\log}$  “explicates”  $P_{\inf}$ :



Following Brandom, if we label the two crucial sides of that triangle, “L” for elaboration and “X” for explication, we can say that logical vocabulary on this view is universally LX:<sup>21</sup> It allows one to *say* what it is that one must do in order to count as a believer. And it is *universally* LX because it stands in the X and L relations to not just any practice or ability; it stands in these relation to those practices that are at the heart of counting as a believer at all.

If it is true that logic is universally LX, then logical vocabulary seems to have a legitimate claim to being able to reveal central facts about believings. After all, if it’s true that  $P_{\log}$  is already implicit (in the above sense) in the inferential practices or abilities which are necessary for any believing, then they are implicit in all exercises of our capacity as a believer. And if that’s true, then what logic makes explicit – in its explicative capacity – are things that one is already in a position to make explicit in virtue of counting as a believer in the first place. In short, logical vocabulary has the potential not merely to explicate the features of believings that have to be in place in order for one to count as a believer; it explicates them using nothing else but those capacities themselves when appropriately elaborated.<sup>22</sup>

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<sup>21</sup>Brandom thinks that logic is not the only universally LX vocabulary. Examples of other universally LX vocabulary are modal and normative vocabulary. These other species of universally LX vocabularies are distinguished by different kinds of elaboration relations which their respective practices stand to the basic inferential practices.

<sup>22</sup>One might think that even if there is reason to think that logic cannot go beyond the necessary features of believings, we are still given no guarantee that logic doesn’t leave any important features out. I agree with Brandom that here we should be pluralists about logic and allow that any universally LX vocabulary could count as logical vocabulary. We can combine pluralism with contextualism, as I suggest in §5.5, to have a view according to which depending on the context there will be a different logic which is appropriate and will play that explicative role of bringing out the implicit commitments one takes on as a believer.

But we are yet to see how  $P_{\log}$  is supposed to be elaborated from  $P_{\inf}$ . Here is how that story might roughly go in the case of the conditional vocabulary. Consider someone who counts as a believer. In keeping with our conclusion in §5.3, we must accept that this person can engage in the practice of drawing inferences. But if one has the ability to endorse the inference from  $p$  to  $q$ , with some minimal assumptions, this ability could be hooked up with the representation of the conditional “if  $p$ , then  $q$ ” such that they are prepared to hold the conditional only under circumstances that they endorse the inference. Likewise, given their inferential capacity, their representational state can be hooked up to it such that if they already hold the conditional, then they endorse the inference from  $p$  to  $q$ . In short, the basic practices or abilities to endorse an inference and to be in a representational state can be arranged such that they amount to a new practice or ability, namely, that of endorsing a conditional statement of the form “if  $p$ , then  $q$ ”.

Notice that the imagined algorithmic elaboration connecting the basic inferential practices or abilities and the practice or ability to hold a conditional is not psychologically restricted. In actual cases, we certainly don’t have total freedom in shuffling around one’s commitments. So, it might seem dubious that we have the freedom to assume that the representational state with a conditional content can be “hooked up”, as I suggested above, with just any circumstances. But this worry is misplaced as we are here only interested in an idealized sense of “in principle sufficiency”. Thus, we can allow that there be no restrictions on how we might hook up different commitments together.

The story in the case of negation is slightly more complicated but similar. One added wrinkle is the observation that within the inferential practices or abilities that are necessary for counting as a believer are those which allow us to deem two things as *incompatible* with each other. For instance, as I've noted before, my belief that "the bird in my window is a canary", under certain circumstances, commits me to ruling out that "the bird in my window is a finch" as incompatible. With this observation in hand, we can give a very similar story as before about now a new conditional: "if  $p$ , then not- $q$ ". Given the ability to endorse such conditionals, and given our agent's competence with conditionals in general, we can see that our agent also has the ability to believe "not- $q$ " in cases in which she endorses  $p$ . One's grasp of the above conditional presupposes a grasp of not- $p$ .

The algorithmic elaboration of the practices or abilities to believe explicitly logical claims from our basic inferential practices or abilities clearly has a long way to go. For instance, it is not clear what the story in the case of quantifiers would look like, if they are to count as logical. Be that as it may, I think that the sketches I have provided for the conditional and negation do point the way forward. I don't have much more to add at this point, but to express optimism that something along these lines can be worked even in the harder cases.

Let us take stock. Brandom offers an attractive answer to the demarcation question of the familiar logical terms such as the conditional and the negation. What is characteristic of these on this account is that they are at once elaborated (L) from and explicative (X) of the practices which are necessarily involved in any exercise of our discursive capacities, including belief. The idea that logical terms are elaborated from these basic capacities gives us a purchase

on the intuitive idea that logic is already *implicit* in every discursive practice. But the other component is just as crucial: logic explicates the commitments implicit in practices or abilities which pervade our most basic discursive practices. It allows us to make explicit our inferential and incompatibility commitments.

### 5.4.3 Logical Satisfaction Conditions

Even though it is not part of Brandom's official story, this account of the demarcation of logic together with the idea of substitution invariance generates a clear account of logical validity which fits our constitutive account perfectly. Like other logical vocabulary, the notion of logical validity, too, plays an explicating role:<sup>23</sup> it identifies the commitments one has which do not depend upon the significance of non-logical terms. Because of logic's explicative role, these commitments may not be already explicit and so one may not be aware of these commitments. However, logic helps to bring them out.

Notice that even though these commitments are implicit in one's believings, they are not part of the possession conditions of one's normative standing as a believer. If Yaya believes that the key is in either of the two drawers of a certain desk and she believes that it's not in the first, logic tells us (supposing that classical logic is the correct logic) that she is thereby committed to endorsing the claim that the key is in the second drawer. But this is not necessarily part of her counting as believing the premise claims (namely, that the key is in either of the

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<sup>23</sup>Needless to say, from a modern perspective there is a categorical difference between the logical constants, on the one hand, and the metalinguistic concepts such as logical consequence. For our purposes, this difference doesn't play a crucial role and we can ignore it.

two drawers and that it's not in the first). What is part of the possession conditions, as we noted in §5.3, is her taking on some commitments, not specifically that the key is in the second drawer or anything else for that matter. Logic's role is to uncover some of what it is that she is committed to. That is to say, it gives us some of the (most central) satisfaction conditions of her beliefs.

I said above that the commitment revealed by logic is not *necessarily* part of the possession conditions of her premise beliefs. I say this because, as I noted before, I don't want to rule out that representing and thereby determining some of the satisfaction conditions of one's normative standing as a believer may be an essential part of the possession conditions of one's normative standing. The point of distinguishing the possession conditions, on the one hand, and the satisfaction-determining conditions, on the other, is not to say that these don't line up in any way; the point is rather that they are not to be identified with one another. In Yaya's case, what this means is that the commitment to endorse the claim that the key is in the second drawer may or may not be part of the possession conditions of Yaya's beliefs that the key is in either of the two drawers and that it isn't in the second. When it's not, logic can play an important role in making explicit this implicit commitments and revealing what it takes to satisfy the commitments one takes on by believing the premise beliefs.

Let us take a step back and reflect on where we are with respect to our general constitutive framework. Recall that according to the version of the intrinsic view I defended in the previous chapter logic is normative for thinking because it lays out the constitutive norms of belief. There I defended this view against some challenges. However, I said very little by way of

positively characterizing logic. Given Brandom's view, we can now make further progress by noting that logic is an explicative enterprise of a certain kind, allowing us to explicitly spell out the normative commitments that any of our discursive practices or abilities (including believing) involve in a way that requires nothing more than the basic practices or abilities which are at the heart of any exercise of a discursive practice or ability. Logical validity, in particular, gives us a way of saying what it is that we do when we hold any belief irrespective of what its non-logical significance is without requiring any further resources than what is required to hold any belief at all. And this kind of account is precisely what the intrinsic view needs: an account of logic which gives pride of place to belief and the normative practices or abilities that are involved in it.

As part of the constitutive account, we have a clear account of the normativity of any science that helps to explicate the necessary normative features of belief. In order to count as a believer, as we have seen, one must take some things as reasons for one's belief and one's belief in turn as a reason for others. If we have a science that tells us what one needs to do in order to satisfy these commitments, then one is normatively bound to take steps to make sure that these conditions are met. However, as we saw in the previous chapter, it is one thing to take on a commitment and quite another to satisfy it. As we have seen, this allows us to see how there could be cases in which one fails to satisfy the commitments and yet still count as a believer if one does take them on nevertheless.

If our observations in this section are correct and there is a clear sense to be made of the idea that logic is the science that lays out certain normative features of belief, then logic fits the

above bill perfectly: It tells us what some of the most central satisfaction conditions of one's normative standing as a believer are.

### 5.5 Pluralism Again

Putting the results from §5.3 and §5.4 together we get a fuller specification of the intrinsic account. The former gave a gloss on the possession conditions of believing understood as a normative standing, and the latter offered an account according to which logic lays out certain central satisfaction conditions of the commitments one takes on as a believer. However, we are yet to address the question we ended §5.3.3 with – namely, the question of the conditions that *determine* the satisfaction conditions of the commitments one takes on as a believer.

The account of logic which has emerged nicely answers this question in the case of logic. For what logic is in the business of laying out, as we have seen, are the norms and commitments of the core practices or abilities that one must engage in if one is to count as a believer at all. Thus, these practices or abilities take explanatory priority in this account. Given this account, we can see that there is no reason to think that what determines the satisfaction conditions of commitments are dependent on things that any one individual could do; it is rather the basic practices or abilities that determine the satisfaction conditions.

The word “ability” might suggest some kind of innate feature of our nature at play here. However, I think that a much more attractive option is the view that the satisfaction conditions (as explicated by logic) are determined by the broader established practices surrounding believers. To be sure, in order to engage in the practice, one would need certain abilities as an



individual. However, it is the larger practices and the ability one possesses as a participant in such practices that determine the satisfaction conditions of beliefs.

Observing the fluctuating and messy ways in which our practices work, one might be inclined to think that the emerging view is not promising. However, as we have seen in the previous chapter (§4.5), this should not be taken to pose a problem for the view that logic explicates the norms and commitments that these practices or abilities involve. Rather, the observation should be viewed as a challenge that a plausible version of the view would have to answer.

As I tried to show in §4.5, if we adopt a pluralistic view of logic, allowing that there are more than one correct logics, we can satisfactorily deal with this challenge. We can adopt a contextualism which would allow us to account for certain class of diverging attitudes about what follows from what in a given context. In addition, there's nothing that would make it impossible to account for the disagreements on what makes a given logic correct in a given context. There seems to be no in principle impossibility in meeting the challenge of accounting for the messy practices which we engage in as believers.

## 5.6 Conclusion

In this chapter, my main aim has been to get some clarity on the two ends of the distinction I introduced in the previous chapter between “possession” and “satisfaction” conditions. I first tried to defend a tradition according to which the possession conditions of belief involve a certain kind of discretion or control over our beliefs. I defended a version of this idea according to which holding a belief is an active exercise of one's rational agency in taking one belief as

supported by reasons and in turn itself serving as reason. I contrasted this version of the view with a fairly standard alternative and argued that the latter is not tenable.

After glossing the possession conditions, I turned to the satisfaction conditions. Following Robert Brandom, I offered an account of logic according to which logic is in the business of making explicit some of the central commitments one takes on in holding any belief whatsoever. In this way, I argued, logic helps to make clear some of the basic satisfaction conditions of one's belief. What's more, because this account of logic begins with our practices or abilities, it strongly suggests the least metaphysically demanding account of satisfaction-*determining* conditions: the account according to which what determines the satisfaction conditions are the larger social believing practices which we engage in. Finally, the messy and changing nature of these practices, I argued, should not be taken to speak against the view as there are resources to mitigate these challenges.

## CHAPTER 6

### CONCLUSION

In his unpublished 1897 manuscript “Logic,” Frege wrote:

Like ethics, logic can also be called a normative science. How must I think in order to reach the goal, truth? We expect logic to give us the answer to this question (Frege, 1979, 128)

Here Frege manages to fit both strands of thought on the source of the normativity of logic which I have considered in this dissertation in one stroke of the pen. On the one hand, by saying that logic is useful in order to “reach the goal, truth”, Frege strongly suggests the extrinsic view – the view that the normative role of logic (understood as itself independent from belief and reasoning) can be traced back to certain facts about belief, namely, that it aims at the truth. On this view, logic is not any more normative than any other science.

On the other hand, the first sentence at least suggests the intrinsic view as most would agree that the normativity of ethics is intrinsic. If logic is normative in the special way that ethics is, then it better turn out that that the source of the normativity is intrinsic to it.

While the interpretive question about which view Frege had in mind continues to this day, my aim has been to adjudicate between these two strands by exploring each on their own merits.

In chapters 2 and 3, I leveled a two-pronged argument against the extrinsic view. First, in chapter 2, I argued that there are major difficulties with the most widely-held attempts

to define logical validity. I first considered Kriesel's so-called "squeezing argument" which purports to show that a model theoretic definition is in fact coextensional with our "intuitive notion" of validity. I argued that this argument fails because it turns on an ambiguity in Kriesel's use of the phrase "intuitive notion of validity". Second, I examined Field's argument from semantic paradoxes against the more general definition of validity in terms of truth preservation. I argued that a seemingly devastating challenge to Field's argument works only under a uncharitable interpretation of the argument. I argued that if we understand Field not as offering a counterexample to the definition of validity by way of showing that the concept of truth preservation and the concept of validity are not coextensional, but as illustrating that the two concepts are different in intension, the challenge would lose its bite. Thus, I argued that Field's argument stands and thereby undermines the idea that we can give a definition of validity in terms of truth preservation.

Chapter 3 began with the observation that the arguments of the sort I presented in chapter 2 are piecemeal in nature in that they always leave open the possibility that there is a neglected alternative which might win the day. To remedy this problem, I proposed to focus on a different aspect of the extrinsic view: the idea that the normativity of logic has its source in certain basic normative facts about belief, in particular, that belief aims at truth. I identified a certain aspect of the normative role that logic plays for us, which I labeled the response-guiding role of logic. I argued that given this normative role, the source of the normativity of logic cannot be traced back to anything like the idea that belief aims at the truth. If truth is the aim, I argued, logic cannot be taken to have the response-guiding role that we readily take it to have.

Given my two-pronged argument against the extrinsic view, I think we do well to reject it. No doubt, this might be taken as evidence against the very idea that logic is normative. However, as I hope that my attempt in the subsequent chapters have shown, this would be a hasty conclusion. Instead of drawing a skeptical conclusion about normativity of logic, the rejection of the extrinsic view should motivate an assessment of whether an *intrinsic* view can be rendered intelligible and defended.

I took on this project in chapters 4 and 5. In chapter 4, I proposed to understand the intrinsic view as claiming that logic is essentially in the business of laying out (formally – in some sense of formal to be clarified) the norms that constitutively govern belief. In chapter 4, I examined the notorious challenge for this kind of view to account for the possibility of error. According to the challenge, the constitutive account would make it impossible for one to commit a logical error. I argued that the constitutive version of the intrinsic view can satisfactorily meet this challenge, if we accept (1) that holding a belief is a normative standing, i.e., an activity that involves a constellation of commitments and entitlements, and (2) that in general we should distinguish between possession condition and satisfaction conditions of normative standings. I argued that this allows for cases in which one holds a belief but fails to meet the satisfaction conditions of the belief. To take a basic example, I could believe that you are still in the room even if I fail to satisfy one of the satisfaction conditions of this belief, namely, to not believe that it's not the case that you have already left, by getting confused about the formulation of these claims. I labeled this kind of case “error from obstruction”.

While I argued that cases of “error from obstruction” are possible, I observed that the constitutive account indeed rules out the possibility of “error from skepticism”. I argued that in order for one to explicitly flout a logical norm by way of raising a skeptical challenge against the constitutive account, one has to understand the constitutivity of the laws of logic for belief on the model of, for instance, rules of chess. However, I argued that there is a fundamental difference between constitutivity of the rules of chess and the constitutivity of the logical norms in that in the latter case one doesn’t have the option to put one’s standing as a believer on hold and step out of the believing business. Since the case of belief is different in this way, I argued that it is not possible for one to explicitly flout a logical norm by way of raising a skeptical challenge.

Despite this feature of the constitutive account, I highlighted the importance of realizing that there is nothing in the constitutive element of the intrinsic view which requires that we privilege a certain understanding of the logical norms over others. I argued that even as constitutivists we can endorse logical pluralism, i.e., the view that there is more than one correct logic. My leading thought was that constitutivism is a view about the *source* of the normativity of logic. As such, it doesn’t take a stance on whether there is one (or any) correct logic or what the content of the correct logical norms are. It thus leaves room for the logico-epistemological work that would go into determining the correct logic and the correct logical norms. In particular, I argued that it is consistent with a contextualist pluralism about logic.

My two main aims in chapter 5 were (1) to elaborate further on the possession conditions of doxastic commitments; and (2) to lay out the sketch of one example of the kind of “logico-

epistemological” work that is left open by the constitutive account. In regards to (1), I drew on the tradition that puts “reflection” or “self-determination” at the heart of the possession conditions of holding a belief. One fruitful gloss on this idea, I observed, is the thought that to exercise one’s capacity for self-determination is to be such that a certain sense of a “why”-question can always be raised about one’s performances. I then suggested that because the legitimacy of the “why”-question presupposes one’s ability to provide reasons for one’s belief and use one’s belief as a reason for others, this gives us a purchase on the possession conditions of belief in general: what it is to count as holding a belief is in part having the commitments to provide reasons for one’s belief and use it as a reason for others.

In regards to (2), inspired by Robert Brandom’s work on what he labels “logical expressivism”, I offered an account of logic according to which logic is directly concerned with the norms and commitments involved in our practices or abilities to hold beliefs. I argued that we can think of logical vocabulary (including, the vocabulary of logical validity) as a certain kind of metavocabulary for any exercise of our rational capacities as believers – namely, the metavocabulary whose use is something that is in principle available (in a sense to be clarified) to anyone who has the ability to engage in the practice of believing at all.

My Brandom-inspired account of logic fits perfectly with the constitutivism of chapter 4. The account allows us to see logic as the science that helps us figure out the satisfaction conditions of the commitments involved with the normative standing of believing. Because on this account logic is squarely about our practices, we can see that what settles the satisfaction conditions, which logic is in the business of making explicit, is precisely those practices.

Noting the ever-changing and messy nature of our practices or abilities, one might be inclined to think that this line of thought is not very promising. However, I think that this worry is misplaced. As I have argued throughout chapters 4 and 5, one takes on the commitments which logic is in the business of laying out (whatever they turn out to be) without necessarily settling all the satisfaction conditions of these commitments. Nevertheless, as a believer, one is normatively bound to uphold all these commitments, including the commitment to the logical norms. That these norms may change depending on the context, as my contextualist pluralism of chapter 4 suggests, or may be dynamic over time, doesn't speak at all against the former idea. So, the normative role of logic is consistent with logic being about our practices or abilities and therefore itself not a unified set of rules or principles.

Wittgenstein once complained that our modern, mathematical notion of logic as something “pure” and unconcerned with the actual goings on of the world is not fit to serve our real needs. He wrote:

the more narrowly we examine actual language, the sharper becomes the conflict between it and our requirement. (For the crystalline purity of logic was, of course, not a result of investigation: it was a requirement.)” ([Wittgenstein, 1958](#), 107)

He worried that logic's “rigor seems to be giving way here” as we turn our gaze toward our actual practices (108).

My hope in this project has been to explore a way forward which rejects Wittgenstein's dichotomy between looking at our actual practices, on the one hand, and having a rigorous understanding of logic, on the other. I think Wittgenstein is correct to be skeptical of “the *pre-conceived* idea of crystalline purity” of logic. And I agree that this idea “can only be removed



by turning our whole examination round". However, as I have been at pains in the last two chapters to show, we can strive to be every bit as rigorous about logic as the modern understanding that arose out of the mathematical turn of in the early part of the twentieth century. If the kind of explicative account of logic which I offered in chapter 5 is successful, we would have a squarely practice-based account of logic which can actually resemble quite closely our understanding of it from a modern perspective.

Needless to say, this is only the beginning of an account of logic which doesn't fall on either side of Wittgenstein's dichotomy. For instance, as I flagged before, there are serious technical worries about the Brandom-inspired account which I offered in the last chapter. In addition, my three-way distinction between possession, satisfaction, and satisfaction-determining conditions, which was at the heart of my solution to the problem of the possibility of logical error, is still in need of further elaboration. One issue, for instance, is the connections between these notions. As I said at various points, it seems that even though it's a mistake to identify any of these with each other, they may have close connections. For instance, it seems that unless enough of the satisfaction conditions are met, one cannot count as possessing a normative standing. But how much is enough? Similarly, it seems that for any given belief at least some of the satisfaction conditions should be determined by the possession conditions. So, it seems that there must be at least some overlap between possession and satisfaction-determining conditions. But what are those limits and what determines them?

Another equally important issue is the work required to further flesh out the sense in which logical practices or abilities depend on context, and how that corresponds to pluralist strains

in logic. Chapters 4 and 5 should be viewed as attempts to open up a research program that makes good on the claim that logic is intrinsically normative. I hope, however, to have convincingly motivated and successfully laid the groundwork for this research program, while also indicating the shape it will take.

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