

Diversity of Exposure in Television Viewing: Audience Fragmentation and Polarization in Guangzhou

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Chinese television has gone through tremendous growth and change recently. The new media environment has the potential to reshape patterns of television consumption and, in turn, affect the democratic development of Chinese society. This study examines audience fragmentation and polarization, two measures of diversity of exposure, in Guangzhou by conducting a secondary analysis of people meter data. The results show that structural changes have increased the degree of audience fragmentation and polarization in Guangzhou. Most notably, the rapid development of both overseas and local television services has greatly diminished the audience for national, government operated channels in the market. Overall, though, patterns of audience fragmentation and polarization are more limited than analogous audience behaviors reported in the West. Guangzhou audiences still concentrate on popular programs with general appeals and show very little evidence of forming into “enclaves” (Sunstein, 2001) that confine their television consumption to a limited diet of like-minded speech.

Keywords: Audience Fragmentation; Audience Polarization; Diversity Exposure; Guangzhou Television; China Television

Introduction

China's mass media have gone through rapid growth and tremendous change in recent years. Much has been written about the processes and structure of these changes and the evolving relationships between mass media and other political and social institutions in China (e.g. Chu, 1994; Zhao, 1998; Lee, 2000). One of the main focuses of such research has been on the trends of commercialization, decentralization, and internationalization of Chinese media and their sociopolitical implications for Chinese society (e.g. Hong, 1998; Wu, 2000). Some scholars and critics argue that the commercialization process has begun and will continue to reduce the level of state control over media. An increasingly diversified media system will eventually lead to democratization of Chinese communication (Zhao, 2003).

Against this backdrop, the current study assesses television audience behavior in one of China's most developed media markets, Guangzhou, within the framework of media diversity. By bringing audiences into the ongoing discussions about the prospect of China's media system, the study aims to offer some empirical evidence to evaluate the assumption that underlies our understanding of media diversity and societal change.

The New Television Environment in China

Accompanying the rapid development of China's advertising industry, the number of television outlets has grown exponentially. By 2003, there were 363 television stations with 2,262 channels operating on the local, regional and national levels of the Chinese television market, making it one of the most complex television systems in the world. The growth has provided Chinese television audiences with a wealth of viewing options that would have been unheard of just a few years earlier.

Along with the growth in quantity, the diversity of television programming has also substantially increased in terms of both type and source of programming (Chan, 1994; Chang, 2002; Hong, 1993, 1998; Keane, 2002). Independent program production companies have begun to develop (Guo, 2003). Local television stations have grown increasingly responsive to the program preferences of local audiences. Further, differences in the program preferences of audiences in different local markets have become tools for market differentiation and audience segmentation.

Rapid internationalization in production and presentation is another indicator of increased diversity in television programming (Chang, 2002). Although limited by government regulations, overseas television services in China are more adapted to the market than their Chinese counterparts in their aptitude for offering entertainment-oriented programs. Their success in the market has compelled domestic television stations to imitate or copy the contents and formats of their programming (Keane, 2002). Some local stations have established joint production units with their transnational media counterparts (Chang, 2002).

With limited production capacity, the fledgling domestic production industry cannot fulfill the demands of China's burgeoning television market. Television stations have to resort to program importation to satisfy their programming needs. Figure 1 shows the significant growth of imported programming between 1993 and 2003. The programs imported included movies, dramas, children's programs, sports and documentaries from a variety of countries throughout the world (Wang & Chang, 1996).

 Figure 1 About Here

The commercialization of the television industry has turned China's television stations into highly profitable enterprises. Television has become the biggest advertising medium and the fast growing advertising market (Zhang, 2005). Economic incentives are driving Chinese television stations at all levels into a frenzy of channel expansion aimed at seizing a larger slice of the market. To survive this cut-throat market competition, Chinese television stations pursue "channel specialization", an idea imported from the American television industry and eagerly adopted by the domestic television industry. Stations develop specialized programming catering to a specific demographic group for their newly established channels as supplements to the comprehensive programming on the existing channels. This strategy is hailed by the struggling Chinese television industry as a panacea to cure all the symptoms inherent in the clash between market mechanisms and the existing ill-fitted industry infrastructure. Consequently, Chinese television audiences, especially those in the most developed urban markets, usually have access to two or three channels of similar types of programming originating at the city, provincial and national levels respectively. For instance, in Guangzhou, one of the largest local television markets in China, there are at least four movie channels, three news channels, three financial channels, three children's channels, and two sports channels in addition to numerous channels offering comprehensive programming originating from local, distant and oversea television providers.

Diversity of Exposure: Audience Fragmentation and Polarization

Recent developments in China's television industry have raised concerns over social implications above and beyond the overt economic consequences. Intensified market competition has eroded the audience's as well as the economic and political influences of established media services in their respective markets (Chang, 2002; CVSC-Sofres Media, 2005). The rapid growth of local media and the challenge of overseas media are threatening the monopoly of China Central Television, the only national station. This is disquieting to some industrial observers and communication researchers who favor a nationalistic point of view.

Broadly speaking, their concerns echo those expressed by some social critics in the West who believe in the power of television to create a "shared symbolic environment" and to "promote social integration and a sense of common purpose" (Webster, 2005, p. 369). Like Katz (1998), they are advocates of a few "generalized" media outlets that can serve as a "central place" for the public (p. 99.). They maintain that a strong national media institution is the best way to defend China's cultural identity and economic interests in the process of opening up its media market to foreign media competitors.

Specifically, such critics of the new media environment are anxious about the danger that overseas media, equipped with better financial, managerial, technical and programming resources and expertise, will crush the fledging domestic media (Zhao, 2003). The decentralization process is also worrisome to supporters of this camp. The

increased number of local television channels and the flourishing alternative entertainment programming are seen to be fragmenting the originally very unified national audience and luring them away from serious political content, such as news, on national media. One can easily imagine such critics adding to their list of concerns fears of social polarization that are increasingly commonplace in the West. That is, the trend toward channel specialization will encourage people to concentrate their viewing on outlets that agree with their own points of view. Thus people will retreat into the equivalent of “gated communities” or enclaves of likeminded speech (e.g. Gandy, 2001; Sunstein, 2001; Turow, 1997) thereby changing media and political landscapes in their society.

A second, more optimistic group speculates that the increased number of media outlets and content diversity in China’s media industries will eventually lead to the democratization of communication in China (Zhao, 2003). Scholars from this media liberalization perspective argue that the commercialization and decentralization processes have begun and will continue to reduce the level of state control over media. Greater diversity in the production and presentation of media content will encourage a more robust exchange of viewpoints and ideas, which is the necessary ground for the formation of “the marketplace of ideas”, a metaphor for the ideal environment where citizens have unfettered access to a variety of information sources and freedom to choose between them (Napoli, 1997). The formation of this marketplace of ideas will, in turn, “promote goals such as informed decision making, cultural pluralism, citizen welfare, and a well-functioning democracy” (Napoli, 1999, p. 9).

One way to understand the relationship of media diversity to democratic society is through the media diversity model. Diversity has long been one of the fundamental objectives of communications policy-making and an important measure of the quality of any media system in democratic societies (Einstein, 2004; McQuail, 1992; Napoli, 1997). According to Napoli, the concept of media diversity has three major components: 1) source diversity, 2) content diversity, and 3) exposure diversity (See Table 1). Source diversity is defined in terms of media ownership, as well as the diversity of its workforce. Content diversity refers to the diversity of viewpoints, program types and the demographic diversity of those represented in media content. Exposure diversity measures how audiences make use of the available options. Napoli subdivides this into horizontal and vertical exposure diversity, a distinction that is discussed in the following section. While each of these three primary components is the indispensable “link in the diversity chain (p. 18)”, exposure diversity is the most important element in the pursuit of the marketplace of ideas. In this account, citizens must take advantage of the diverse information available to them to make the diversity model function toward its ultimate goal of democratic participation (Napoli, 1999).

 Table 1 About Here

The media diversity framework is highly applicable to the study of Chinese media industries in the context of China’s ongoing media reforms. Discussions of China’s changing television industry and its relationship with the evolving social political

environment can not be complete without considering Chinese television audiences. While there is much evidence of increased content diversity, the question remains: How do Chinese audiences make use of the increased content diversity? As Napoli (1997, p. 2) asks, “How many different sources are audiences exposed to in their consumption? Are audiences exposing themselves to a wide range of political and social views? Are they consuming diverse types and formats of programming? Perhaps most important, what factors affect the levels of exposure diversity among audiences?” Studying the diversity of exposure can lead us to a better understanding of these questions.

Napoli (1999) categorized diversity of exposure into two types: horizontal diversity and vertical diversity. The former refers to the distribution of audiences across content options or channels. This is analogous to the concept of audience fragmentation (Webster, 2005). The latter refers to the diversity of content consumed by individuals over time. This is related to a feature of audience behavior called “audience polarization”, or the tendency toward either intense use or avoidance of content by its audience (Webster & Phalen, 1997). Audience polarization can also be thought of as a behavioral manifestation of audience loyalty (Webster, 2005).

Mapping Audience Diversity of Exposure in Guangzhou

Audience Fragmentation--Horizontal Diversity of Exposure

As the number of television channels proliferates in the market, the degree of audience fragmentation is expected to increase. Evidence from the U.S. and other developed television markets shows that audiences are increasingly fragmented by newly established cable networks. As audiences choose among more and more programs, the level of horizontal diversity of exposure is expected to rise.

However, the relationship between media content diversity and audience exposure diversity is not necessarily a linear/positive one. Existing studies on media diversity in the U.S. suggest that an increase in the diversity of content does not necessarily lead to an increase in the diversity of exposure (Napoli, 1997; Webster & Phalen, 1994; Youn, 1994). Sometimes, increasing the availability of certain underrepresented program types, such as news, religious, and general information programs, has been shown to negatively influence audience consumption of these programs (Wober, 1989).

A higher degree of audience fragmentation is often indicative of greater content diversity as well as greater horizontal diversity of exposure. In the current study audience fragmentation is measured by looking at the market share and size of weekly cumulative audiences for each channel in the market.

RQ1: How is the Guangzhou audience distributed across the channels? How has the degree of fragmentation changed from the past?

Audience Polarization—Vertical Diversity of Exposure

New media technologies and advertising practices are increasingly breaking mass audience into smaller groups of viewers who tend to only consume programs of their

preferences. To the extent viewers watch some channels intensively to the exclusion of others, they are said to be polarized in their media consumption behavior (Webster, 2005). Audience polarization reflects the vertical diversity of the audience.

In this study, audience polarization is examined by looking at the average time the audience of each channel spent watching it during a week-long period. The more time an audience spends on one channel, the less time is spent watching other channels. Consequently, the vertical diversity of the audience is compromised.

RQ2: How much time does the audience of each channel spend watching the channel?

One way to distinguish audience fragmentation and polarization is to conceptualize a temporal dimension. The study of audience fragmentation takes a snapshot of audience behavior at one point in time, whereas audience polarization studies audience behavior as it accumulates. The unit of analysis of the current study is channel. Channel-centric measures have become an important unit of analysis since channels in the new media environment tend to specialize in a type of content (Turow, 1997; Webster, 2005).

Guangzhou Television Market

Guangzhou, the capital of Guangdong province in southern China, has been at the forefront of China's economic reforms since late 1970s. With 6.86% of the nation's total advertising revenue, Guangdong is the second largest television market in China (Zhang, 2005). As an experimental venue for China's open-door policy, Guangzhou is the first city that Chinese government opened up to transnational media corporations. While Guangzhou is, for these reasons, a somewhat atypical media environment among Chinese markets, it embodies the kinds of structural changes that are sweeping the country and so is an ideal locale for the current study.

According to CVSC-Sofres Media's enumeration study in 2005, 99% of the households in Guangzhou have at least one TV set with a remote control. The cable penetration has reached 99%, well above Beijing and the comparable U.S. national average (Nielsen Media Research, 2003). While the total number of channels circulating in Guangzhou is 95, an average household can receive about 44 channels. This is evidence of differential channel availability, which is a direct cause of de facto audience polarization (Webster, 2005). Figure 2 shows the growth in channel availability in Guangzhou's audience in the last eight years. An average Guangzhou adult viewer spends about 200 minutes a day watching television (CVSC-Sofres Media, 2005), or about 80 minutes less than a typical American (Nielsen Media Research, 2003).

Figure 2 About Here

There are four categories of television in the Guangzhou market: national, local, domestic imports, and overseas imports. The first, China Central Television (CCTV), is the only national television service. During the last decade, CCTV has grown from 8 to

15 channels. Except for CCTV-1, which has a breadth of programming comparable to a traditional U.S. broadcast network, each of the other CCTV channels specializes in one or two specific program categories such as news, sports, music or lifestyle content. All of its fifteen channels are transmitted via satellite to a nationwide audience¹. Second, local services include Guangdong provincial channels and Guangzhou municipal channels. Among these channels, only three have comprehensive programming while the rest are more or less specialized. Most of these local channels enjoy high penetration rates. Third, there are approximately 50 distant channels from other provinces and cities that are brought to the Guangzhou audience by combined systems of satellite and cable. Similar to “superstations” in the United States, these distant channels, which are usually the major ones in their respective local markets, offer a broad range of content. Finally, there are eight overseas channels that have been granted access rights to the Guangzhou audience. Table 2 is a list of these channels and their parent companies. Among these channels, four are from Hong Kong, a cosmopolitan city geographically close to but ideologically far from Guangzhou. These channels were accessible to some Guangzhou viewers due to signal spillover and illegal private satellite reception even before they were officially ratified to enter the market (Chan, 2000).

 Table 2 About Here

Method

Today, most Chinese television is advertiser-supported; like their American counterparts, Chinese broadcasters need data on the size and composition of audiences at both the national and local levels. Audience viewing data in China are collected by CVSC-Sofres Media (CSM) using peplemeter panels. These panels are created through a process of multi-stage area probability sampling, in which each stage is stratified and sample elements are drawn in proportion to their incidence in the population.

CSM relies on an annual enumeration study that employs a much larger sample to estimate universe parameters. The peplemeter panels are adjusted annually to be representative of all television households in each city and region served by CSM. The data thus produced have a $\pm 3\%$ margin of error at 95% confidence level, a standard that is well received in China’s television industry.

CSM’s peplemeters are electronic devices attached to the TV that automatically record the minute-by-minute viewing behavior of all the members of the household and their basic demographic information (e.g., age, gender, etc.). Such meters are known to produce a much more precise record of viewing behavior than either diaries or telephone recall techniques and have become the preferred method for measuring television audiences worldwide (Webster, et al. 2006).

This study is a secondary research of the peplemeter data collected by CSM in Guangzhou during the first week of March, 2005. The week is chosen to avoid any atypical events that may have distorted audience normal viewing pattern. The total sample consists of 300 households representative of total Guangzhou urban television

households. The study includes 71 major channels in Guangzhou that account for 100% of the total viewing during the period of time in question.

The study employs the data analysis scheme used by Webster (2005) in his study on fragmentation and polarization of television audience in United States. He adopted some conventional measures used by the television industry to gauge channel usage in terms of audience size and the intensity of use. The first is the universe of households in which each channel can be received, expressed as a percent of total TV households (TVHH). The differentiation in TVHH penetration rate is an important structural element that may lead to “de facto polarization” of audiences. The next two are the measures of the size of each channel’s audience. The first is the channel’s cumulative audience (or reach) expressed as the percent of all persons 4+ who have viewed for at least one minute during the week. The second is the channel’s overall share of audience, i.e. the percent of the total number of “man-hours” that are attributable to that particular channel. The remaining measure is “share-within-cume.” This measure adjusts for the total amount of time a channel’s users spend watching television by representing their time spent viewing the channel as the percent of total TV viewing time.

Results

The results are presented in Table 3. All 71 channels are grouped together by category and ranked by TVHH universe from the highest to the lowest within each category. The only exception is the overseas TV group. The same channels carried by both the city cable system and the provincial cable system are listed together. The respective TVHH universe of those channels is the sum of the two systems.

 Table 3 About Here

TVHH Universe summarizes the percent of all television households capable of receiving the channel signal in question. The data show that older CCTV channels and local channels, i.e. both provincial and municipal channels, are among those that enjoy the highest coverage. Major overseas channels, i.e. Xingkong Satellite TV, CETV, ATV and Jade, also have very high penetration rates clustering around 90%. As a contrast, the distant provincial/superstation bloc has the weakest and most dispersed channel coverage. It sets the ground for the de facto polarization in Guangzhou.

Weekly cume is the percent of the population who watched the channel at least one minute during the week. It is also a conventional measure of audience size. In the U.S., the major national broadcasting networks (NBC, ABC and CBS) are viewed by approximately 66% of the national audience during a week whereas the most successful cable networks achieve only about one third of that (Webster, 2005). In Guangzhou, however, the best of CCTV channels are watched by less than 45% of the Guangzhou audience on a weekly basis. In contrast, Guangzhou TV, the local channel with the highest weekly reach, is viewed by about 80% of the audience. Other local channels, such as Guangdong Zhujiang and TVS channels, also rank highly, ranging from 78% to slightly over 50%. It is particularly notable that two Hong Kong channels, Jade and ATV,

carried by Guangzhou cable systems with less than ideal TVHH penetration, also achieve very high weekly cume. The rest of the channels, mostly the distant superstation channels, have relatively small weekly reach. In fact, even the channels with a TVHH penetration as high as 90% only reach 30% of the audience during the week.

Share of total audience viewing, another conventional measure of audience fragmentation, indicates how large a segment each channel gets. In 2005 the total eight overseas channels captured a total of 42.5% of total viewing in Guangzhou market. Among these channels, the two HK channels that broadcast in Cantonese showed strong appeal to Guangzhou audience with a total share of 34.5%. The local provincial bloc takes up the second largest share, approximately 25.0%. Local municipal channels ranked third with a total of 12.8%. CCTV channels constituted only 11.4% of the total viewing. The distant superstations fared the worst with only 5.5%.

These share numbers offer us a glimpse into the phenomenon of audience fragmentation. Despite its channel expansion in recent years, CCTV's total share has only grown from 6.5% to 9.8%, whereas the share of local TV, i.e. both municipal channels and provincial channels, has doubled during the past eight years. Among overseas channels, Jade TV and TVB, the two Hong Kong channels broadcast in Cantonese, have seen a decrease in their audience shares as their novelty waned through the years² although they still dominate the market (See Figure 3). Meanwhile all other overseas channels have steadily established themselves in the market.

 Figure 3 About Here

Among the four categories of television services in Guangzhou, the overseas bloc has the highest share-within-cume rates. Hong Kong's Jade TV emerged as an overwhelmingly dominant channel with a large and loyal audience. On average, the audience of Jade TV devotes about 30% its total time exclusively to the channel, a ratio far higher than other channels. An average Guangzhou TV viewer spends about 8% of his time watching the comprehensive channel. As a comparison, this is approximately equivalent to the highest level of loyalty enjoyed by the big three national broadcast networks (and some major cable networks such as HBO and Fox News) in the American television market (Webster, 2005). However, Guangzhou viewers only spend a fraction of their time watching CCTV's national channels. Moreover, the broadcast channels as well as some broad appeal movie channels have higher share-within-cume than specialized narrow appeal channels. Entertainment-oriented channels fare better than the others. With the exception of Jade TV's formidable popularity, the overall distribution pattern of share-within-cume across all channels in Guangzhou is similar to that of the American market: most audiences of most channels spend only a small amount of total TV time watching them.

Webster (2005) pointed out that channel availability is a potent structural factor that circumscribes use. A channel's ability to reach an audience, as indicated by TVHH universe, has a great influence on audience size (weekly cume, and to a lesser degree, weekly share) but not the intensity of channel use (a matter of audience loyalty). Similar results are confirmed by the current study. Table 4 is a correlation matrix of all three

variables across 71 cases. TVHH universe is highly correlated with Weekly cumed (r=.71, $p<.001$). It is also correlated with Weekly share (r=.24, $p<.005$). While the most widely available channels may have the advantage of access to more potential viewers, they are not necessarily the ones that draw the heaviest use.

 Table 4 About Here

Table 5 illustrates how four selected groups of viewers distributed their time across four categories of television in Guangzhou. CCTV Comprehensive, Guangzhou TV and Jade TV had the largest share within their respective category. The shares of time their audiences spent watching TV of other categories show us how the patterns of audience flow across the different categories. Jade TV viewers spent approximately half as much time watching national television as CCTV viewers. MTV was chosen to represent the channels with specialized programming to cater to certain demographic groups. However, MTV viewers, far from watching the channel exclusively, spent a large share of their viewing on other channels. In fact, researchers (e.g. Barwise & Ehrenberg, 1988) point out that the audience for each channel is “loyal” only to the extent that they are more likely than the general population to watch the channel. Webster (2005) further argues that although this type of channel loyalty sometimes indicates audience preferences for types of content, it by no means signifies the assumptions of inherent audience loyalty by uses and gratifications paradigm. Neither does it signify the dystopian speculations of deep social polarization (e.g. Turow, 1997; Sunstein, 2001).

 Table 5 About Here

Conclusion

Chinese television has gone through unprecedented development in the past two decades. Commercialization, decentralization and internationalization of the medium have brought about significant changes in its structure and content. An increase in the number of channels, burgeoning local television services, and the establishment of overseas services in Chinese television markets have altered the highly centralized and hierarchical television system of the past. State monopolies in the national market have dissolved. Prevailing market forces motivate television stations to cater to audience preferences. Foreign importation and the emerging commercial program production industry have added much diversity to television programming. Changes in the structure and content have inevitably led to changes in the way audiences use the medium. As the most important medium to inform and entertain Chinese people, these changes have led to hopes and fears about their effects on potential societal changes in China.

Some of the concerns about the new media environment in China correspond to what is already being contested in the West. As the media environment delivers more content options, most of which are personalized and differentially available, audiences are

increasingly fragmented and polarized in their media usage. Intensified audience fragmentation, usually implying the decline of viewer-ship of traditional national media, runs the risks of denying society a unified forum to tend to the affairs of public interest (Katz, 1998). Worse still, polarization in its extremity confines people to their own limited points of view and creates the equivalent of “gated communities” (Turrow, 1997). The public sphere, of which national media are an integral part, seems to be in danger of being broken into “sphericules” (Gitlin, 1998).

Both scenarios contradict the fundamental principles of an ideal democratic media system which has long stressed the importance of diversity (Napoli, 1997; Webster, 2005). As a comparison, developments in Chinese television have aroused similar concerns and contentions on the effects of the media reforms. However, both Webster (2006) and Napoli (1997) have argued that behavioral response of the audiences is a key element to gauge the effects of diversity of content and sources in the media system. Therefore, no speculations on media effects can go any further without a thorough understanding of audience behavior on empirical grounds.

The media diversity model developed by Napoli (1997 & 1999) provided the theoretical and analytical framework for the current research on diversity of exposures of Chinese television audience in the context of changing media environment. To this end, both horizontal and vertical diversity were measured using existing audience behavioral measures developed in previous research, i.e. audience fragmentation, and polarization.

Horizontal diversity of exposure looks at how audiences are distributed across content options. Audience fragmentation depicts the division of the total audience into small segments over the available media options (Webster & Phalen, 1997; Webster, 2005). The increased number of available channels at national, provincial and local levels in the market has resulted in significant degrees of fragmentation of the Guangzhou audience. Viewing has been dispersed to more channels. In absolute terms, most channels currently occupy a small portion of the time people spend watching TV. This signifies an increased degree of horizontal diversity of exposure across channels for Guangzhou audiences.

The rapid growth of both overseas and local media has clearly threatened the national channels in the market. While CCTV channels hold less than 12% of total market share, two Cantonese channels from Hong Kong claim about 30%. The trends of audience concentration on the overseas channels and fragmentation from the national channels in the Guangzhou market bear broad implications for other parts of China where overseas media services have yet to become a reality.

Overall, the results indicate that as Guangzhou viewers have more and more channels at their disposal, they take advantage of those new choices. Compared with the past, they watch more local television, both in terms of time spent watching and number of channels they watch, than before. The overseas channels, especially those from neighboring Hong Kong, have become their favorites. In contrast to the state-owned television stations, these new program choices are more entertainment-oriented and free of heavy-handed ideological tones. It is unquestionable that they have expanded the horizontal diversity of exposure of the Guangzhou audiences. Liberal critics of media reforms in China welcome the change as a sign of fledgling development of democracy in Chinese communication.

Vertical diversity of exposure refers to the diversity of content consumed by individuals over time. Audience polarization, the tendency of audience members to either

consume or avoid certain content, is a prominent form of vertical exposure diversity. In the face of a growing number of program choices, Guangzhou audiences, in general, have shown a limited degree of vertical exposure diversity, as measured by their consumption of channels. Their viewing patterns indicate that they choose to spend most of their time watching the most popular Hong Kong channels. Although heavily entertainment-oriented, these Hong Kong channels do offer a variety of types of programs throughout the day. In addition, some popular domestic channels still maintain the program traditions of juxtaposing programs of different audience appeals even at the expense of audience flow. Given the complexity of channel-based programming in China, the measure of diversity of exposure may be extended to program level in the future to get a further look at the reality.

Furthermore, Hong Kong channels have large and loyal audiences, who on average spend about 30% of their TV viewing time watching these channels. About 20% of their viewers spend half of their total time on these channels. These channels' existence defies the structural confines. Their weekly audiences, a little above 50% of the total audience (when examining the same channels in two local cable systems separately), spend 30% of their time watching it exclusively. Other overseas channels, that broadcast in Mandarin, are far less influential. Here language and cultural proximity seem to play an important role (Straubhaar, 1991). Besides their influence on audience viewing patterns, overseas channels are also found to have changed audience perception and evaluation of television (Chan, 2000). The popularity of Hong Kong television high in entertainment values cultivated the general perception of television as an entertainment medium among the Guangzhou audience (Chan, 2000) and forced local television to adopt more attractive program formats, content and ways of presentation (Chan, 1994; Fang, 1998). Access to Hong Kong television also brought Hong Kong popular culture, such as movies and pop songs, closer to the Guangzhou audience (Chan, 2000).

At the same time, over 80% of Guangzhou viewers also tune in their local channels during a typical week. However, an average viewer only spends about 10% of his or her time with these local broadcasts. Meanwhile, CCTV national networks are not part of most Guangzhou viewers' weekly TV consumption. Only 40% of them tune in CCTV comprehensive, the primary national channel, and most viewers would spend fewer than 5 minutes watching the channel in a typical week. As a comparison, CCTV comprehensive reaches 74% of the national audience during a typical week and boasts a 10% average market share.

The results also help us understand the relationship between audience behavior and media structure in the market. The correlation between TV household penetration rates of the channels and their weekly audience sizes in the Guangzhou market indicate that structural factors, such as channel availability, play an important role in constraining people's viewing behavior. The channels that have penetrated more households have access to larger audiences. Potential audience size in turn influences audience share. The larger the audience a channel can access, the higher the viewing share it will get from its audience. Improved channel availability of both new and old channels in the market, both in terms of quantity and signal quality, contributed to audience fragmentation in Guangzhou. Differentiated channel availability is a major cause of audience polarization.

However, the relationship between channel penetration rates and their weekly shares of audience demonstrates that channel availability does not necessarily dictate channel

usage. In fact, national networks and some distant satellite channels from outside Guangzhou can reach over 90% of households in the market but they cannot manage to make it onto the screens of most of these household for a single minute during a week-long period, let alone garner significant audience viewing shares. The discrepancies between channel availability, audience size and audience viewing share indicate that structural factors alone cannot completely explain audience program choice.

These structural changes have increased the degree of audience fragmentation and polarization in China's television market in the past two decades. However, the degree of fragmentation and polarization is limited. The Guangzhou audience still aggregates on the popular channels with general appeals. Television remains a mass medium that attracts audiences with various demographic backgrounds and program preferences. Unlike the findings about American audiences in Webster's study (2005), there is no prominent evidence to support the notion of "small-but-loyal audiences" in the Guangzhou market. The channels that offer a variety of programming still capture the largest audience shares. Audiences of specialized channels such as MTV do not spend a majority of time watching those channels exclusively. Contrary to the concerns voiced by Sunstein (2001), Chinese audiences do not form "enclaves" and become isolated from the larger society.

Audience polarization may have greater implications, however, for the national market. A large number of channels are differentially available to audiences both within the Guangzhou market and across the national market. This is evidence of de facto audience polarization. In fact, about 80% of the total TV viewing of the Guangzhou audience happens to be local and overseas channels, most of which are not available to audiences in other areas of China outside Guangdong province. There are similar trends of growth of local television service across China. Growth rates differ contingent on the degree of development of the local television markets. The disparity both in terms of quantity and quality of programming between local television services in different regions is still increasing. In some relatively prosperous metropolitan areas, local television channels produce and carry programs with distinct indigenous cultural elements to attract local audiences. For instance, local channels in some cities, such as Hangzhou and Shanghai, broadcast local news featuring daily incidents in native dialects. These programs prove far more attractive than overbearing ideology-laden national news programs on CCTV. In contrast, audiences in remote rural areas have fewer choices of programming due to a limited number of available channels and a lack of interest in and resources to programming for rural audiences. All these trends seem to signify the disintegration of the national market for the already besieged CCTV national station. In this sense, audience polarization may yet create "enclaves" formed along geo-economic or geo-linguistic dimensions in China's national market (Sunstein, 2001).

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Notes

- [1] Though in practice not all channels can reach 100% of the national audience due to the uneven development of cable system which is the main method to bring the satellite signals to end users.
- [2] Although not officially allowed in Guangzhou in 1997, Jade TV and TVB had their important presence in the market by means of signal spill-over and were received by the local audiences using home-made over-the-air antenna against the forbidding regulations of the local government .

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