Ideological Polarization Over a China-as-Superpower Mind-set:
An Exploratory Charting of Belief Systems Among Chinese
Internet Users, 2008–2011

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This study explores ideological polarization among Chinese Internet users by examining both the structure of local belief systems and temporal changes of opinions. It implements research tools investigating voters' cognition and behavior in democratic societies, including those concerning Internet use and political polarization. To probe this sensitive terrain, it employs network and relational class analysis to a unique historical data set: online records of the Chinese Political Compass self-assessment (2008–2011). Results demonstrate that the overarching ideological division of the Chinese Internet is split between nationalism and cultural liberalism. Groups of "ideologues" and "agnostics" that differentially contributed to overall rapid polarization are also identified. The study further speculates how, in nondemocratic societies, Internet use may influence people's political views through different mechanisms.

Keywords: belief system, China, Internet, nationalism, polarization, public opinion, semantic network

In July 2007, an intellectual contention branded as a left–right struggle triggered discussion on Peking University's BDWM, one of China's most influential online forums. Amid the conversation, attention was drawn to an English online self-assessment, the Political Compass, which claims to give people "a better idea of where they stand politically—and the sort of political company they keep" (The Political Compass, n.d.). Many people who took the assessment were inspired yet also alienated by it—hence the idea of designing a Chinese version tailored to local reality was born (Chinese Political Compass [CPC], n.d.). The Chinese Political Compass (*zhongguo zhengzhi zuobiaoxi ceshi*) consisted of dozens of

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statements regarding Chinese politics, culture, and economy (SI1).[2] It was programmed to return scores of ideological leanings based on participants' attitudes toward individual statements. Launched online on August 8, 2007, CPC was first noticed by, and circulated on, another leading forum, Tsinghua University's SMTH. Intriguingly, and symptomatic of China's political culture, university officials immediately felt uneasy, and ordered, on the night of August 9, to rid campus forums of all related discussion. But their efforts were futile, for the assessment had already gone viral. Within days, it was commented on, promoted, and passed around by numerous celebrity bloggers and across the biggest online forums (Farmostwood, 2007).

"Chinese netizens identify with it for its distinct spirits of the times and familiar sense of reality," wrote one of the creators. In addition, viewing oneself as in a political position differentiable from others' political positions stirred up fresh excitement.

> This self-assessment is so popular that it indicates, inversely, how discussion and rivalry of various political opinions on the conscious level (not [even] on the level of policy-making) had been a taboo of public life. Lots of online comments about this assessment reflect that many people are not accustomed to having their own points of view, let alone to [competing opinions] on such a vast scale. I believe that this disposition is not nature, but nurture from long-term idleness. (Farmostwood, 2008)

In April 2008, realizing that the project had grown far beyond a mere pastime among friends, the creators built in mechanisms to record participation. By the end of 2011, numbers of self-assessment recorded annually ranged from 70,000 to 160,000.

Based on these unique historical data, this study explores the state of ideological polarization among Chinese Internet users based on shared local belief systems, and the process of opinion change in different interpretive communities. It contributes to existing literature on Internet communication and political change in China by providing a macroscopic picture of the evolving ideological landscape online and by underscoring the diversity and specific contestations therein. It also enriches studies on Internet use and ideological polarization with a case set not in democratic partisan politics but in an authoritarian society where the Internet reconfigures the information regime differently. Particularly, the results suggest that in nondemocracies, given the high-choice online environment, the politically uninterested who primarily seek entertainment may nonetheless become disenchanted with the conventional and authoritative beliefs propagated by the state, a result possibly of tangential exposure to alternative political information; meanwhile, however, this population remains indifferent to or unaware of alternative value preferences. Further, this study makes a methodological contribution by employing novel analytical methods such as semantic network analysis and visualization to explicate belief system–based polarization in public opinion research.

It should be noted that the CPC data set is not perfect for studying public opinion, nor does it claim to be. Rather than a survey created for preplanned research projects, CPC is an online self-assessment designed and launched by historical actors. It generated data that resemble a historical

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[2] Supporting information (SI) is located at http://angelaxiaowu.com/files/IJoC_supporting_material.pdf.

archive, with a much-needed historical dimension for us to peek into the landscape and trends of changing political views among China's Internet users.

CPC is legitimate and unique for the current research purpose for several reasons. One chief advantage is its daring content and genuine responses, afforded only through a trendy self-assessment instrument made possible by Internet technologies. These assets are otherwise hard to obtain in China. In traditional survey settings, the Chinese political environment presents various obstacles, which make investigating the most sensitive, and thus exciting, topics difficult (Carlson, Gallagher, Lieberthal, & Manion, 2010; Shi & Lou, 2010; W. Tang, 2005). The assessment also contains a miscellany of specific items without a preplanned rationale, which, although appearing haphazard at first sight, actually provide rich material for exploring locally developed political minds. Moreover, China surpassed the bar of 10% Internet penetration only in 2007, followed by a dramatic twofold increase of the number of Chinese websites in 2008. During the 2008–2011 time span covered by CPC, the percentage of the online population grew rapidly from 16% to 34% (China Internet Network Information Center, n.d.). This four-year period is crucial to understanding the history, social use, and political implications of the Chinese Internet.

This article begins by reviewing the static and the dynamic dimensions of opinion polarization and their relevance in understanding Internet use and ideological change in nondemocratic countries. Pertinent to the former dimension, it discusses literature on belief systems, and, relating to the latter, it examines research on polarization and Internet use in democratic countries. The next section is devoted to locating the CPC participants in the Chinese online population and in the national populace at large. This helps interpret patterns the study identifies and the possible role of Internet usage therein in a larger context. The article then presents data analyses and discusses the empirical, theoretical, and political implications of the results.

Ideological Polarization and Belief Systems

Research on Internet communication and political change in China, from the beginning, has tended to concentrate on activists and dissidents, who use the Internet to challenge state apparatuses and official discourses. This focus has recently been noted as limited and hampering an adequate grasp of China's online population and its activities. Researchers have drawn attention to the substantial portion of Chinese users who conform to government ideologies, support state censorship, or simply take no interest in political matters—who, in short, "do not use the Internet in accordance with Western expectations" (Damm, 2007, p. 285; Liu, 2010; Wallis, 2011; A. Wu, 2012). Complicating the picture is a separate strand of scholarship on Chinese online nationalism, an alarming trend that appears to operate in a different world from that of the internationally respected dissidents (Li, 2010; Shen & Breslin, 2010; X. Wu, 2007). Beneath these fragmented portraits, cyber-China accommodates all indiscriminately, buzzing with internal disputes, revelations, and change.

This study conducts an exploratory inquiry into this evolving landscape in light of conceptions and measurements of ideological polarization, which investigate certain distributional properties of public opinion. In their classic study, DiMaggio, Evans, and Bryson (1996) developed a multidimensional definition of attitudinal polarization. They address polarization as both a state—"the extent to which opinions on an issue are opposed in relation to some theoretical maximum"—and a process—"the increase in such opposition over time" (p. 693). Both these dimensions are highly relevant for understanding

popular sentiment in nondemocratic societies as well as for conceiving possible paths via which attitudinal changes occur through Internet use in these contexts.

Examining polarization at a time point, this study focuses on polarization over multiple issues that may be ideologically associated in people's mind. This is an extension of DiMaggio and colleagues' work (1996), which studies polarization over single issues. Opinion polarization is crucial because it may reduce conversation and brew political conflicts, so it is more useful to scrutinize the scale and coalescence of discrete oppositional attitudes. For instance, society is less polarized when pro-life and pro-choice persons both tend to favor environmentalism; the worst scenario is when disagreement over abortion rights and environmentalism overlaps. When multiple issues are under consideration, however, interrogating the degree of polarization requires additional conceptual and methodological tools, starting from the concept of the belief system. In his seminal work, Converse (1964) defined *belief system* as "a configuration of ideas and attitudes in which the elements are bound together by some form of constraint or functional interdependence" (p. 207). For example, the most prominent political belief system in the United States has been widely recognized as structured by the liberal–conservative spectrum, which means that support for, say, gay marriage, abortion rights, and gun control always comes in a package. In other words, subscribing to a belief system means that a person's opinions on various subjects can, according to this belief system, be likely predicted from knowing her opinion on one subject. The theoretical maximum of polarization in public opinion depends on the structure of the belief system at work. In the above example, it is the distance between people taking extreme liberal positions on all the involved issues and those taking extreme conservative ones.

Central to identifying a belief system is "opinion constraint," which binds together ideational elements. In the West-based literature, groups with more access to elitist political culture, such as politicians, intellectuals, and many media practitioners, tend to exhibit high degrees of constraint within the authoritative belief system (e.g., the liberal–conservative spectrum in the United States). To comprehend and assess specific issues at hand, these groups resort to abstract categories and logics inherent in this system. The constraint from these overarching principles prevents subscribers from taking potentially conflicting stances—conflicting according to the principle in operation—on specifics. A great portion of the general public, in contrast, lacks sufficient cultural and political capital to formulate "legitimately" coherent views. Instead, they tend to arrive at their stances in a case-by-case fashion, deriving their attitudes on a specific issue more from feelings toward concrete instances or social groups, or simply from instinct—in sum, from an immediate, rather than an abstract, position. For example, certain personal experiences may lead a pro-life person to also promote gay marriage, if he is not constrained by the liberal–conservative opposition. By definition, then, these people's assemblies of political beliefs exhibit weaker signs of internal, systematic association, or constraint (Baldassarri & Goldberg, in press; Converse, 1964; Luskin, 1987; Nathan & Shi, 1996).

The operating belief systems latent in public opinion are never predestined, but contingent upon myriad historical forces. Belief systems prominent in China may differ substantially from, say, the U.S. liberal–conservative spectrum. In China, where one-party rule without electoral democracy lasts for decades, multiple ideological options such as liberal or conservative have never been *instituted* in the political landscape competing for public attention. An intense subject throughout the history of the People's Republic of China, left/right labeling has been contingent upon political struggles and mass mobilizations. Unlike citizens in democratic systems, the Chinese strategically navigate these floating

labels to avoid trouble (Nathan & Shi, 1996). Even contemporary Chinese intellectuals are far from reaching a consensus on how these political ideas are normatively affiliated (Davies, 2009; Tea Leaf Nation, 2012). In postsocialist China, where both social structures and values undergo sea changes, indigenously emerged belief systems should be identified and studied.

Ideological Polarization and Internet Use

Polarization also refers to a process. In liberal-democracies, many theoretical propositions and empirical studies focus on whether the Internet exacerbates polarization via remolding people's consumption of political information. Carrying on a long tradition of work on selective exposure (Klapper, 1960), scholars examine whether the online high-choice media environment facilitates personalization of information consumption for ideological self-enhancement, and thus leads to greater political polarization in society. Like research on polarization in public opinion, these studies are based on real-world partisan divisions in democratic systems. With an overall conclusion still being debated, strong evidence gestures toward an affirmative answer (Hollander, 2008; Iyengar & Hahn, 2009; Knobloch-Westerwick & Meng, 2011; Stroud, 2008; Sunstein, 2007; Wojcieszak & Mutz, 2009). Particularly, the stronger one's partisan leaning is, the less one tends to seek cross-ideological information online. This theoretical link between Internet use and ideological polarization forms an intriguing contrast with the widespread idea that Internet technologies "liberate" minds of those under authoritarian rule by offering diverse information. If the high-choice media environment fulfills individuals' tendency to remain in "echo chambers" always consistent with their preexisting views, would Internet-penetrated nondemocratic regimes like China experience polarization of some kind rather than a sweeping ideological shift?

To extend this line of thinking, several distinct features characterizing the Chinese context must be taken into account and carefully analyzed. In China, the Internet caused a much more drastic disruption of the existing information regime. In comparison, in capitalist, democratic societies, the structure of the online media environment much mirrors the off-line division in politics (Hindman, 2009). But in China, even though both discursive realms are subject to strict state control, the Internet is shaped by a set of institutional constraints and opportunities quite different from traditional media, leading to relative freer expression of opinion and freer flow of information (Zhao, 2010). It is widely acknowledged that in China, in terms of viewpoints, the Internet maintains a far more plural inventory than traditional mass media (Esarey & Xiao, 2011; Tang & Sampson, 2012; also suggested by numerous case studies on how the Internet circulates alternative information for mobilizing oppositions). Witnessing the contrast between on- and off-line information regarding political affairs, Chinese Internet users may be more prone to adjust their established views of the current regime. In fact, research shows that, as various versions of the theory of democratization identify social class-related variables as most powerful in predicting attitudes toward political change, in China "being a netizen" turns out to be even more powerful (Lei, 2011, p. 312). However, if political views are broadly construed, as in the West, to include understanding of cultural and economic matters, it is far from clear how Internet use may affect public opinion over issues less sensitive than regime legitimacy in authoritarian China.

Second, considering polarization based on belief systems instead of on single issues, the Chinese context entails more complication—that is, a possible concurrence of the polarization process and formation of a prominent belief system. As previously discussed, whereas competing partisan forces have

long been instituted in liberal democracies, to the Chinese populace, a public space where a range of political stances are elaborated and showcased had been missing. It is not unreasonable to assume that the Internet may have provided sites and infrastructure for people to interact and communicate, where emergent belief systems and ideological options may develop. In China, therefore, adjusting one's position through Internet use may take place as opinion constraint of the rising political belief system strengthens. If so, in the earlier stages, little systematic polarization would manifest across multiple issues, because these issues would not yet be embedded into an overarching belief system.

As an exploratory inquiry into ideological polarization among Chinese Internet users, this study seeks to provide some empirical evidence for the following research questions (the first two regard the state of polarization and the last two the polarizing process):

RQ1a: *What is the structure of the prevalent political belief system(s)?*

RQ1b: *Organizing their beliefs in these specific ways, were people ideologically polarized overall?*

RQ2a: *What is the trend of ideological polarization from 2008 to 2011?*

RQ2b: *How did the polarizing trend relate to the establishment of local belief system(s)?*

Contextualizing the Data Set

Before diving into the analyses, inspecting the data set against the general online population and the national populace helps interpret and weigh the results. This study relies on four samples of 1,000, each randomly drawn from one year's total records of participation (from 2008 to 2011, this number is about 100,000, 70,000, 160,000, and 146,000). Every record contains the person's attitudes toward 50 discrete statements and an IP address specific to the level of township. In 2010, CPC had 10 statements replaced and underwent some minor wording modifications. This study focuses on people's attitudes toward the 40 recurring statements in the assessment. Comparing IP addresses, the only demographic information CPC collected, with the actual geographical distribution of China's online population each year, reveals a concomitant pattern, with the notable exception of overrepresenting Beijing and Shanghai users (see Figure 1; SI2).[3]

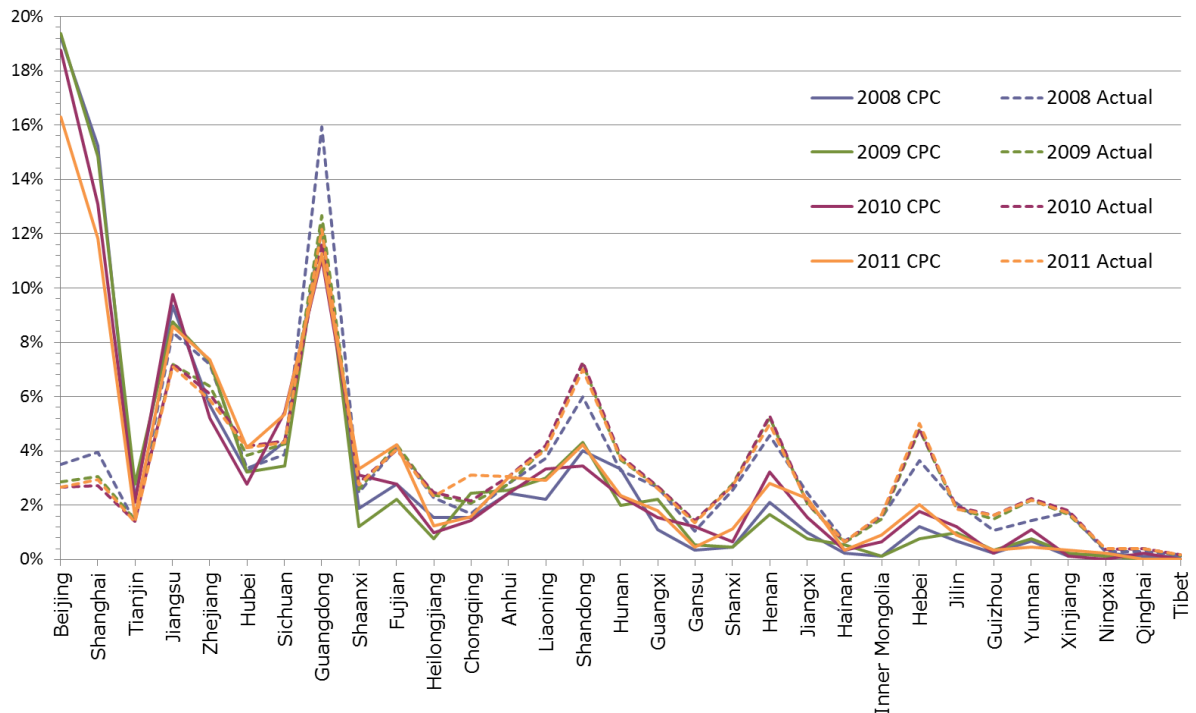[3] I thank Harsh Taneja for this idea.

***Figure 1. Geographic distribution of CPC participants and
actual online population in China, 2008–2011.***

In terms of distribution channels, it has to be clarified that BDWM and SMTH, origins of the self-assessment's initial propagation, were not online forums exclusively used by students and alumni from Peking University and Tsinghua University. Although set up and owned by the top two universities, these two forums ranked among the most influential in China in the early 2000s and attracted vast user bases. After 2005, they were subject to government regulation of university forums and had to mainly serve on-campus IPs across the country. When CPC started, it was college students nationwide—the largest occupational group (constantly about 30%) of the Chinese online population (China Internet Network Information Center, n.d.)—who first participated and spread the word. Soon CPC became a live topic thanks to the flowering blogosphere and other online forums, clearly indicated by the crawler-generated list of 1,040 Web pages linking to the assessment.[4] Given the enormous amount of participation throughout the time span, CPC has arguably not remained within small elite circles.

Zooming out to the national populace, the changing demographics of Internet users need to be put in perspective. Overall, the Internet penetrates down the ladder of social and economic status. From

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[4] Backlink Watch (http://www.backlinkwatch.com) was used on January 14, 2013, to check Web pages linking to CPC (http://zuobiao.me and, redirecting to it, http://blog.farmostwood.net/politics_bdwm, which was also widely circulated).

early 2008 to the end of 2011, however, the Chinese economic boom, among other factors, led to a richer online population with an expansion of middle- and high-income groups earning above 2,000 RMB (US$334) monthly. In comparison, the top-down diffusion is illustrated more tellingly by the steady increase of the percentage of less educated users. Meanwhile, the user population became more mature, joined by ever more seniors. All developments are modest (see Figure 2). In sum, online demographics changed in ways that by themselves suggest growing prominence of conservative voices on the Internet (M. Tang, Jorba, & Jensen, 2012). When inferring the role of Internet use from patterns of ideological change observed in the data, keeping in mind this backdrop movement is important.
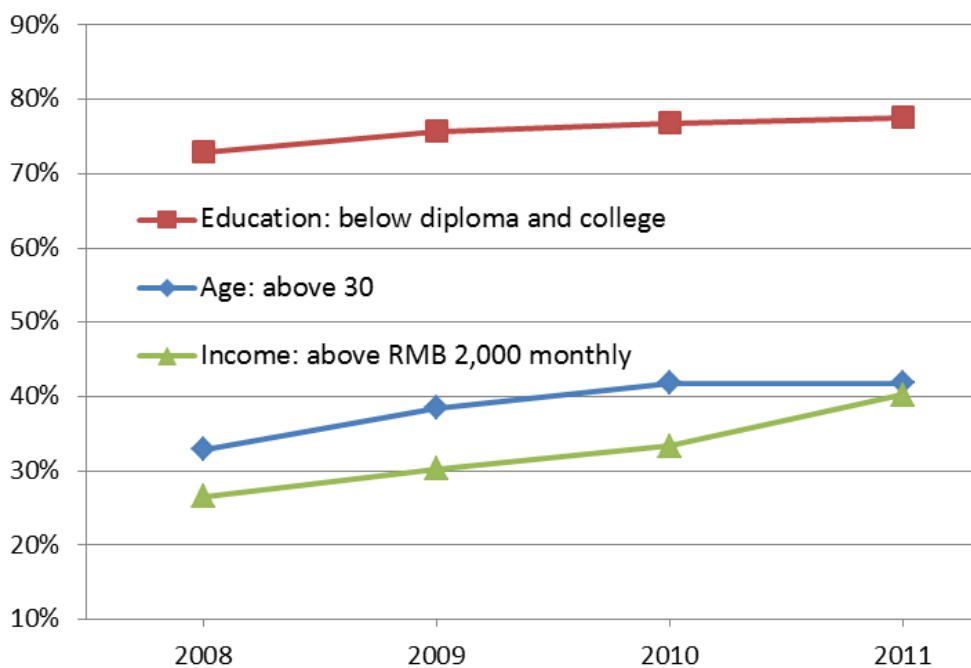

Figure 1. Top-down diffusion of the Internet in China, 2008–2011.

        Cross-comparison of the four annual samples demonstrates clear trends and consistency. This, adding to the high total participation, suggests against significant random biases in sampling. Even for predesigned online survey research, the best defense for a reliable picture of the characteristics of its participants is replication by conducting multiple surveys with the same or similar types of Internet communities (Wright, 2005).

Analyses and Results

Exploring Popular Belief Systems Through Relational Class Analysis and Factor Analysis

To answer RQ1a, about the structure of the prevalent political belief systems, relational class analysis (RCA) is conducted to account for the sociocognitive heterogeneity of the population, and each latent interpretive community is analyzed separately for its prevailing belief system. RCA is a novel network-based method proved robust in researching cultural consumption patterns and political belief networks (Baldassarri & Goldberg, in press; Goldberg, 2011). It does not examine opinions on various issues independently, as conventional methods do, but instead explores the varied ways in which discrete opinions relate to one another across participants. Thus, it detects latent interpretive communities characterized *not* by "having the same opinions but rather [by] agreeing on the structures of relevance and opposition that make symbols and actions meaningful" (Goldberg, 2011, p. 1397). For instance, through RCA, Baldassarri and Goldberg (in press) recently found a significant portion of U.S. citizens who are morally conservative while economically liberal or vice versa, instead of strictly aligning with either liberal or conservative categories. This indicates the existence of a widely shared belief system alternative to the liberal–conservative spectrum that dominates U.S. politics.

Across the four annual samples, RCA constantly spots two large clusters of comparable size. For each cluster every year, correlations between all the statements are calculated to probe the nature of the shared mind-set. Specifically, four statement responses—*strongly agree*, *agree*, *disagree*, and *strongly disagree*—are coded as 1 to 4, respectively. The strength of the correlation coefficients between responses indicate that, over time, there exists one group with stringent constraint in organizing political preferences and another with weak systematic rules. Drawing from Baldassarri and Goldberg's (in press) typology, members of the former are henceforth referred to as *ideologues* and those of the latter *agnostics* for their isolation from overarching ideologies.

The subsequent task is to identify issue domains to which discrete ideas may be articulated within the belief system. First, factor analysis is conducted on every annual sample to render qualitatively different dimensions underlying people's responses (SI3). Based on each year's result, along with the substance of involved statements (Nathan & Shi, 1996, pp. 534–535), as well as reliability tests (Stewart, 1981; SI4), a uniform set of five factor indices is created for cross-year comparison. Labels are assigned to factor indices to describe their constituents: *cultural liberalism* (support for liberal values within culture and politics), *nationalism* (territorial and militarist nationalist tendency), *political conservatism* (opposing Western-style democracy and supporting the current political system; W. Tang, 2005, pp. 70–73), *traditionalism* (pro-Chinese traditional culture and values), and *economic sovereignty* (independence of national government in economic decisions). Despite relatively lower reliability, extra statements from the assessment are selected to probe how opinions regarding domestic economic policies associate with the above factor indices. They constitute three more measures: *reform grievance* (dissatisfaction with, and sensitivity to, inequitable income distribution resulting from China's market reform), *market regulation* (state control over market price), and *agricultural subsidy* (see Table 1; hereafter, when shown in italics, these labels refer to the respective combinations of statements as listed in Table 1).

The validity of this solution gains further credibility when analyses show that, within each of these factors/measures, ideologues think much more consistently than agnostics do. The level of correlation

between discrete statements entailed in one factor/measure, or what DiMaggio and colleagues (1996) call "opinion strength within issue domain," is indicated by the value of Cronbach's alpha. Whereas the ideologues' values for all factors are above 0.6, agnostics score consistently lower (see Figure 3; SI4 and SI5). Therefore, these factors/measures may serve as issue domains for reconstructing the local belief system.

Table 1. Issue Domains and Their Constituent Statements from the Chinese Political Compass.

Cultural liberalism
- Images of national leaders and founding figures of the country can be teased in literary and artistic works.
- The Chinese citizen should be allowed to keep a foreign nationality simultaneously.
- Sex activities between two consensual adults are their freedom of choice, regardless of their marital status.
- Even if there is population pressure, the nation-state and society have no right to interfere with whether the individual wants children, and how many children s/he wants.
- If it is of his or her free will, I acknowledge the partnership my child has with his or her same-sex partner.
- It is the individual's freedom to waste food.

Nationalism
- All students, regardless of whether they are in elementary, secondary, or higher education, should participate in military training arranged by the state.
- The highest interest of society is national territorial integrity.
- If with sufficient comprehensive strength, China has the right of any actions to protect its own interest.
- If the conditions allow it, we should seek the reunification of Taiwan through military measures.
- The nation-state should take measures to train and support athletes to win national glory in various international games.
- The U.S.-led Western countries will not really allow the rise of China as a first-rate strong nation.
- Human rights have precedence over national sovereignty (negative).

Political conservatism
- The multiparty system of the West does not suit the conditions of China.
- Imitating Western-style freedom of speech will cause social disorder in China.
- When severe incidents that affect social security happen, even if doing so may risk disturbances, the government should still ensure open communication of information (negative).

Traditionalism

- Contemporary Chinese society needs Confucius wisdom.
- *I Ching* and the Eight Diagrams can provide effective explanations of many things.
- The notion of human health in Chinese traditional medicine is superior to that in modern, mainstream medicine.
- We should use classics in traditional culture as major readings for children.

Economic sovereignty

- In the decision making of large-scale engineering projects, societal interests take primacy over individual interests.
- The tariff on imported products should be high to protect domestic industries.
- The realms that have greatly to do with national security, national economy, and people's livelihood must be in the charge of state-owned enterprises.
- Foreign capitals in China should enjoy the same treatment as domestic capitals (negative).

Reform grievance

- Fruits of China's economic developments since the reform and opening up are taken by a minority. The majority of people do not receive much benefit.
- The high-income population should make sources of their income public.
- The process of capital accumulation always accompanies harms done to the interests of ordinary working people.

Market regulation

- If the price of pork is too high, the government should intervene.
- Attempts to control real estate prices will wreck economic development (negative).

Agricultural subsidy

- The government should purchase produce at a relatively high price to increase farmers' income.
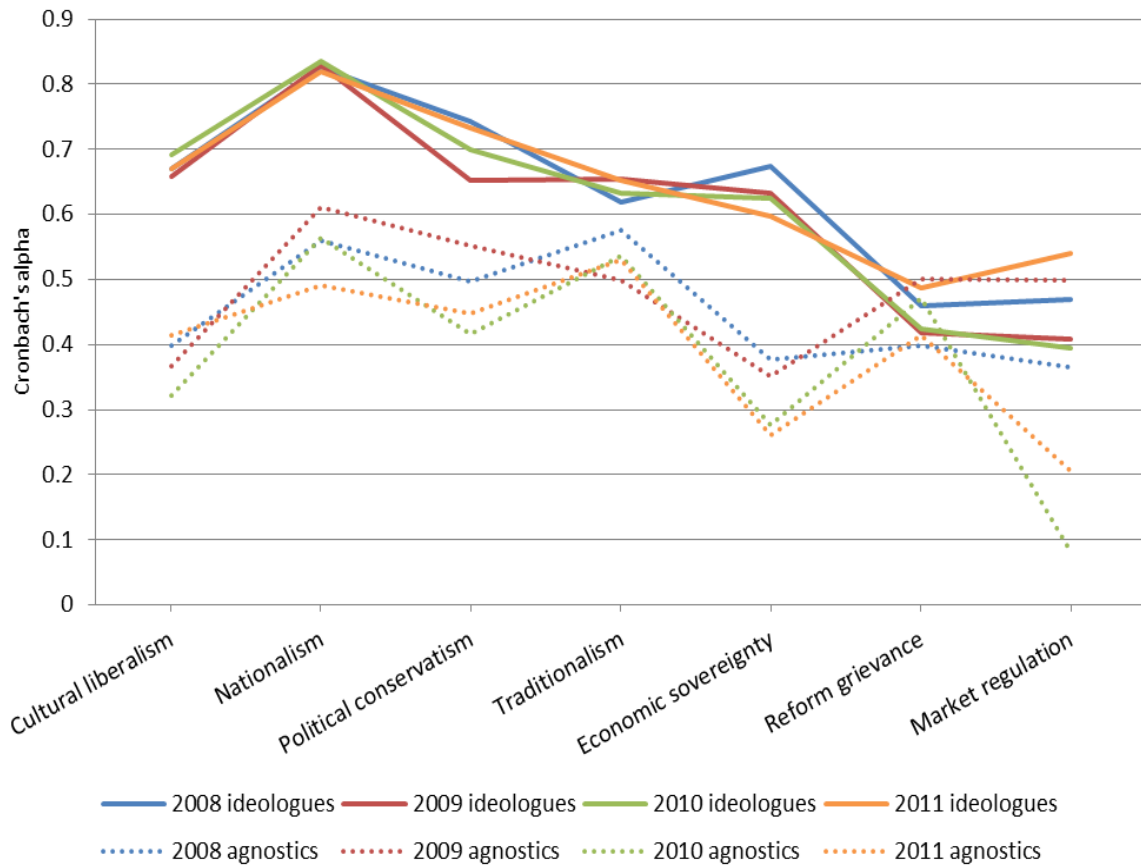
Figure 2. Opinion constraint within issue domains among ideologues and agnostics.

After specifying the issue domains, their interrelations are discerned to reveal the full structure of the local belief system. To proceed, the score of each factor/measure is calculated by averaging values of all the included statements, and a *low* score indicates participants' general affinity to the idea this factor/measure represents. Correlation between these scores, then, reflects the composition of people's belief systems. The eight correlation matrices, each illustrating the political belief system of either the ideologue or the agnostic population in one of the four years, are represented by eight corrgrams in Figure 4. Corrgrams are graphic displays developed to render large and complex correlation data easier to access and evaluate (Friendly, 2002). Rows and columns of the corrgram represent factors/measures; two

specific mechanisms are used here for visualization.[5] First, like producing heat maps, the color of every dot, ranging from cold blue to warm red, represents the degree of correlation between the corresponding factors/measures. (The diagonal dots are left colorless.) For example, in ideologues' corrgrams, *cultural liberalism* and *nationalism* intersect at blue or deep blue dots, which means that, in the ideologue minds, these two factors are very negatively associated. Second, the size of the dot is proportional to the confidence interval. In the above example, the dots are also sizable, indicating the significance of those correlations. That many dots either are tiny or fail to appear in the agnostics' corrgrams, in turn, means that these correlations are rather insignificant (see Figure 4; SI6).

The ideologues' corrgrams, which remain consistent over the years, represent the dominant belief system on the Chinese Internet. It is characterized, distinctly, by the opposition between *cultural liberalism* on the one side and *nationalism, political conservatism,* and *economic sovereignty* on the other. *Traditionalism* and *market regulation*, albeit to a lesser extent, also align with the nationalist ensemble and oppose *cultural liberalism*. Attitudes toward economic inequality, represented by *reform grievance* and *agricultural subsidy*, however, have no, or very weak, correlation with either the liberal or the nationalist side. As the highly systematic-thinking ideologues organize their particular stances according to this belief system, the agnostics, as shown by their corrgrams, are rooted in specifics. They do not even see *cultural liberalism* and *nationalism* as antagonist values. Notably, both groups lack consistency relating the politico-cultural domain to the economic one.

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[5] The corrgrams are generated through SPSS base graphics, using a modified version of the syntax by Wheeler (2011). Original correlation matrices are available in the supplemental file.
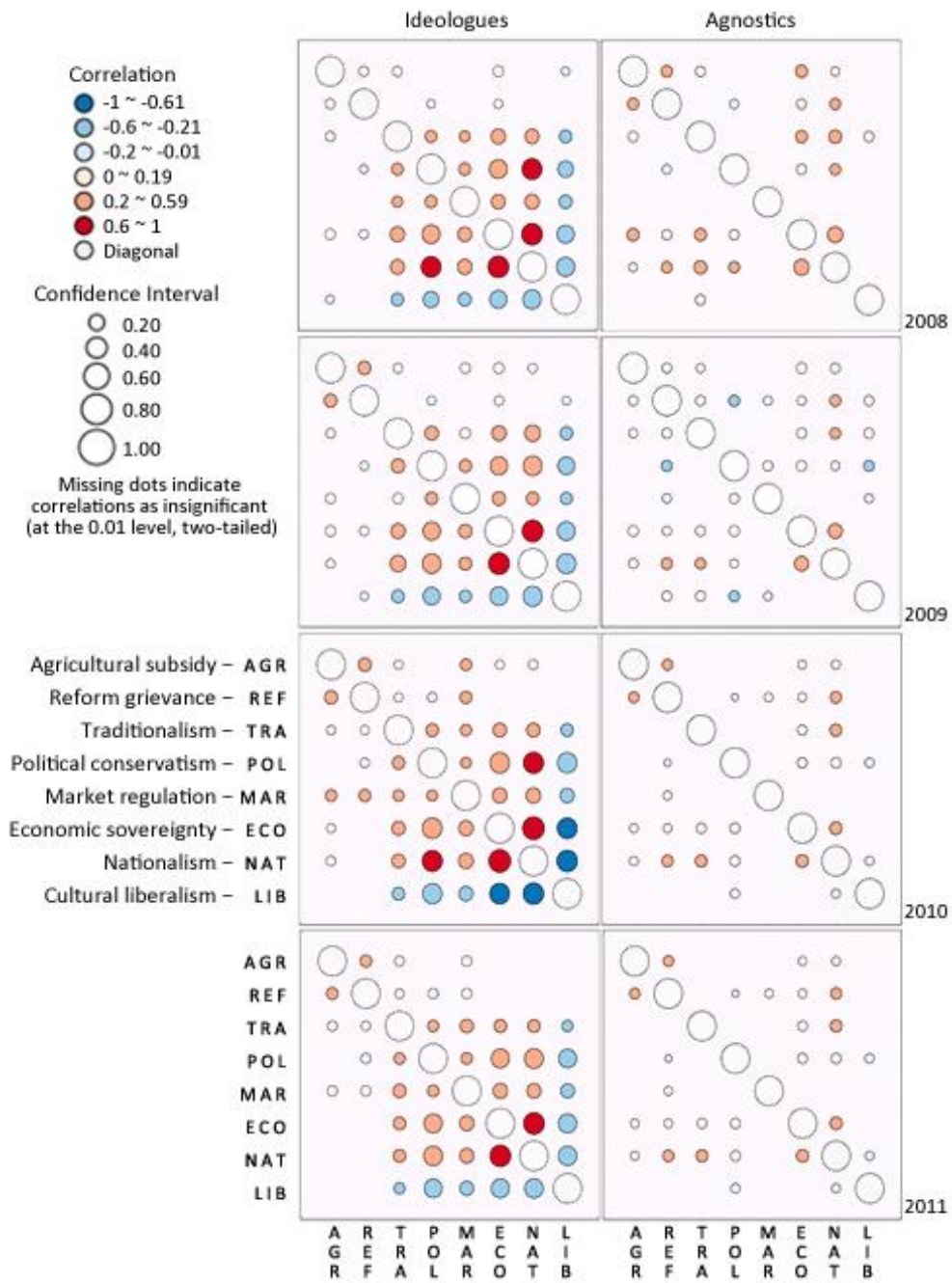
Figure 3. Political mind-sets of ideologues and agnostics.

Observing States of Polarization via Networks of Like-mindedness

To answer RQ1b, about whether people were ideologically polarized overall, this study approaches ideological polarization of each annual sample through semantic network analysis, which conceptualizes network ties as shared interpretations (Monge & Contractor, 2003, pp. 186–189). Through network analysis and visualization, a holistic notion can be obtained of how people relate to one another in terms of actual personal preferences. Compared to hierarchical cluster analysis and latent class analysis, both applied to detect grouping structures latent within the population, detecting communities based on shared interpretations operates in a plainer manner, is visually powerful, and reveals longitudinal changes more directly. It is also tailored for elucidating the overall state of ideological polarization (instead of polarization over single issues), the chief interest of the current study.

In this semantic network, nodes represent participants and ties represent like-mindedness. It takes into account all the 30 statements involved in the factor indices/measures, responses to each statement being dichotomized into *agree* or *disagree*. If two people share the same attitude toward more than 20 statements, they are linked with a tie. A denser linking structure means higher homogeneity in opinions. Four network matrices, derived respectively from annual samples, are then visualized using Fruchterman-Reingold, a force-directed layout algorithm. It places topologically near nodes in the same vicinity, and far nodes far from each other, rendering semantic connections in lucid patterns.[6]

To investigate opinion distribution in these networks, the Wakita-Tsurumi algorithm is employed to identify groups of densely clustered nodes that are loosely connected to other clusters—that is, groups relatively homogeneous in political preferences. About 10 clusters are found in each sample, with the largest 2 clusters appearing constantly at the two poles of the semantic network (see Figure 5). To ascertain the nature of these major clusters, means of their factor/measure scores are calculated and plotted along separate axes in a radar chart (see Figure 6). Each axis respectively represents one factor/measure, starting in the center of the chart at 1 (*strongly agree*) and ends at the outer ring at 4 (*strongly disagree*). As shown in Figure 6, for each year, one cluster (in blue) turns out to be the most *culturally liberal* and most against *nationalism, political conservatism*, and *traditionalism*, and the other (in red), the exact opposite. The two clusters do not differ much, however, on their attitudes toward economic inequality, which coheres with the popular belief system found earlier. Examining Figure 5 with the liberal-oriented and the nationalist-oriented clusters in distinct colors, it is evident that a liberal-versus-nationalist rivalry constantly structures the population.

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[6] All network graphs are generated using the NodeXL visualization and analysis tool (strength of between-node repulsive force = 6.0).
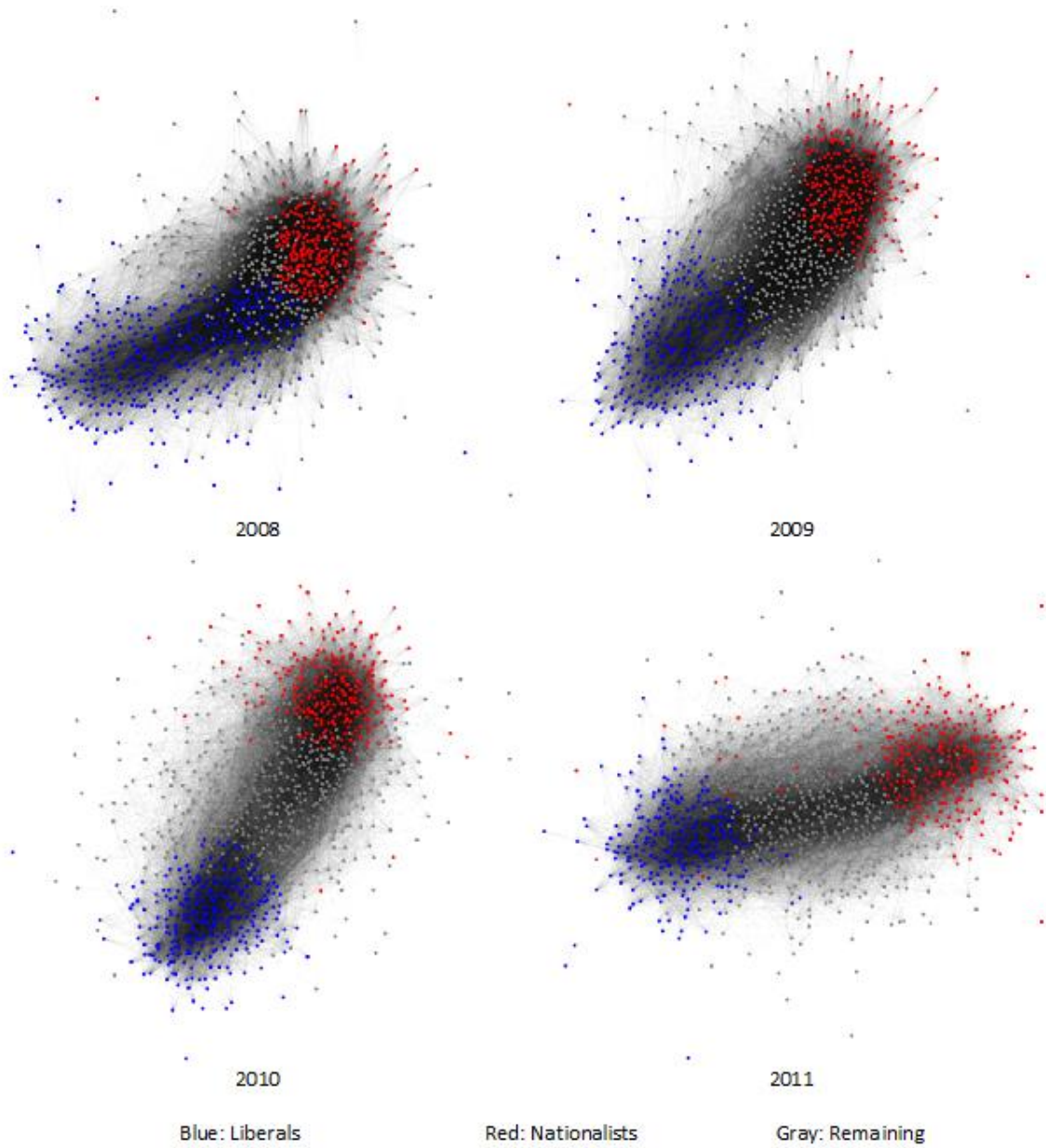
Figure 4. Evolution of the overall network of like-mindedness, colored by dominant opinion groups.
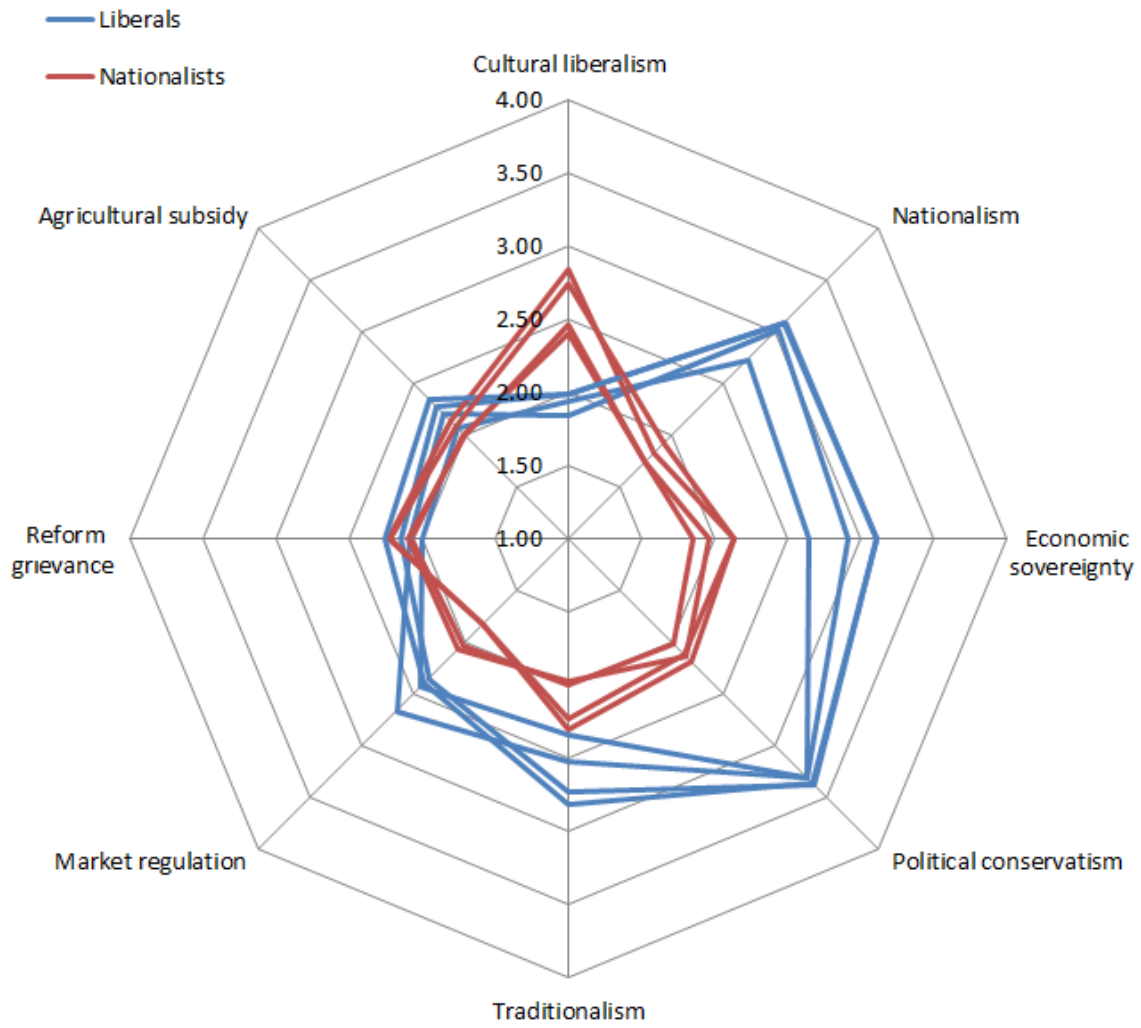
Figure 5. Political profiles of two dominant opinion groups. [7]

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[7] Identified by network clustering, these groups are derived from relative rather than absolute measures. Therefore the actual scores of their political preferences should not be compared across years.

Examining the Polarization Process

Answering RQ2a, viewed chronologically, the visualizations suggest a clear trend of ideological polarization. A smaller liberal-oriented interpretive community seems to arise from the dense mainstream and soon become consolidated. Meanwhile, the initial homogeneous mainstream disperses, resulting in a relatively solid nationalist front at the margin, relating to the alternate liberal front only through a thinning bridge. The elongated shapes of 2010 and 2011 reflect the formation of a polarity (see Figure 5). Network density measures the prevalence of ties, indicating the average level of like-mindedness within the population. Degree-based network centrality indicates the presence of a few nodes that have ties to the majority of nodes (Freeman, 1979). In the present case, network centrality suggests the presence of respondents who occupy the middle ground by sharing certain opinions with respondents holding overall more radical ideas. Thus, the centralization score decreases when there are fewer opinion brokers or buffers between extreme stances. Both density and centralization measures are calculated for the semantic network encompassing all respondents over the years (shown by the red lines in Figure 7), and their steady decrease lends support to the observed polarization process.
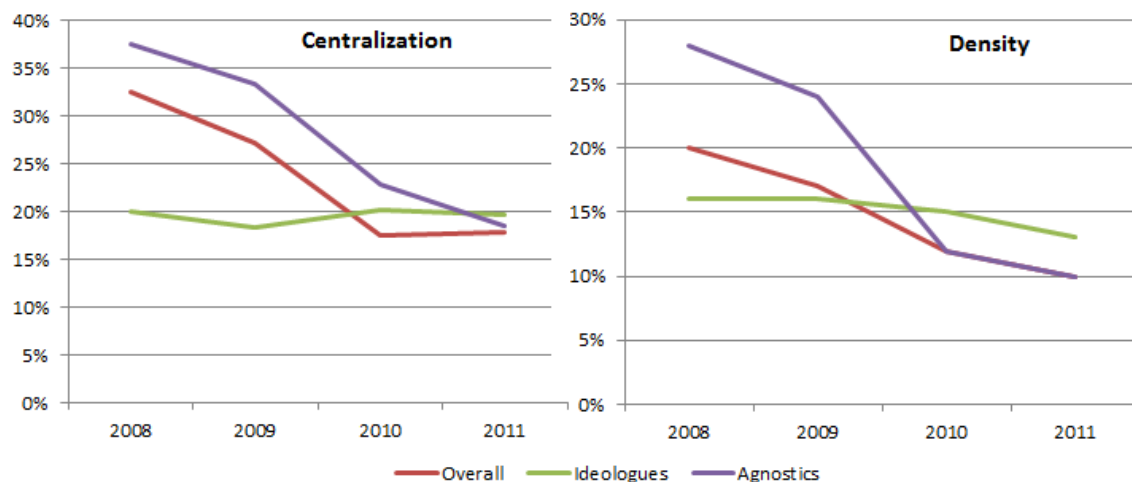

Figure 6. Network centralization and density scores.

Belief Systems and the Polarization Process—Ideologues Versus Agnostics

The last research question regards the relation between the formation of local belief systems and the polarization process. It was shown earlier that the local belief system structured by a grand nationalism-cultural liberalism opposition predated the CPC data. Therefore, unfortunately, the current data set falls short for examining how an emerging belief system interacted with trends of opinion polarization. Nonetheless, separating agnostics from ideologues generates information on how the extent of ideological identification relates to opinion change.

Visualizations of disaggregated semantic networks (see Figure 8) reveal that, intriguingly, the agnostics have undergone fast dispersion, in contrast to an almost stable bipolar structure of the ideologues. This is corroborated by the declining network centralization and density of the agnostic network as compared to the constant scores of the ideologue network (shown by the purple and green lines in Figure 7). Therefore, what the overall network (Figure 5) suggests—a liberal front emerging and distanced from a relatively uniform mass—is not quite accurate. A refined account of polarization should be that the liberal front preexisted data collection and remained on a similar scale into 2011. The polarization exhibited overall actually boils down to the gradual ground shifting and increased heterogeneity of the agnostics.

Examining scores of eight issue domains over the years, one notices the agnostic group's growing disagreement with *nationalism, political conservatism*, *economic sovereignty*, and *traditionalism* on the whole; meanwhile, this group also displays growing variance on *cultural liberalism* (see, respectively, the trend of mean scores and of standard deviation in Figure 9; SI7). These two simultaneous changes cohere with the fact that agnostics, unlike ideologues, are immune to the either-or mind-set with regard to the binary between liberal and the pan-nationalist ensemble. As a result, agnostics, who in the network initially overlapped the nationalist ideologues, moved toward the liberal ideologues; at the same time, this once tight-knit, homogeneous group dispersed quickly, losing its occupation of the middle ground, which uncovers the continuing polarity of ideologues.

In sum, the half a million participation records left by Chinese Internet users from 2008 to 2011 provide strong evidence of ideological polarization both as a state and as a process, each of which is discussed in the subsequent sections.

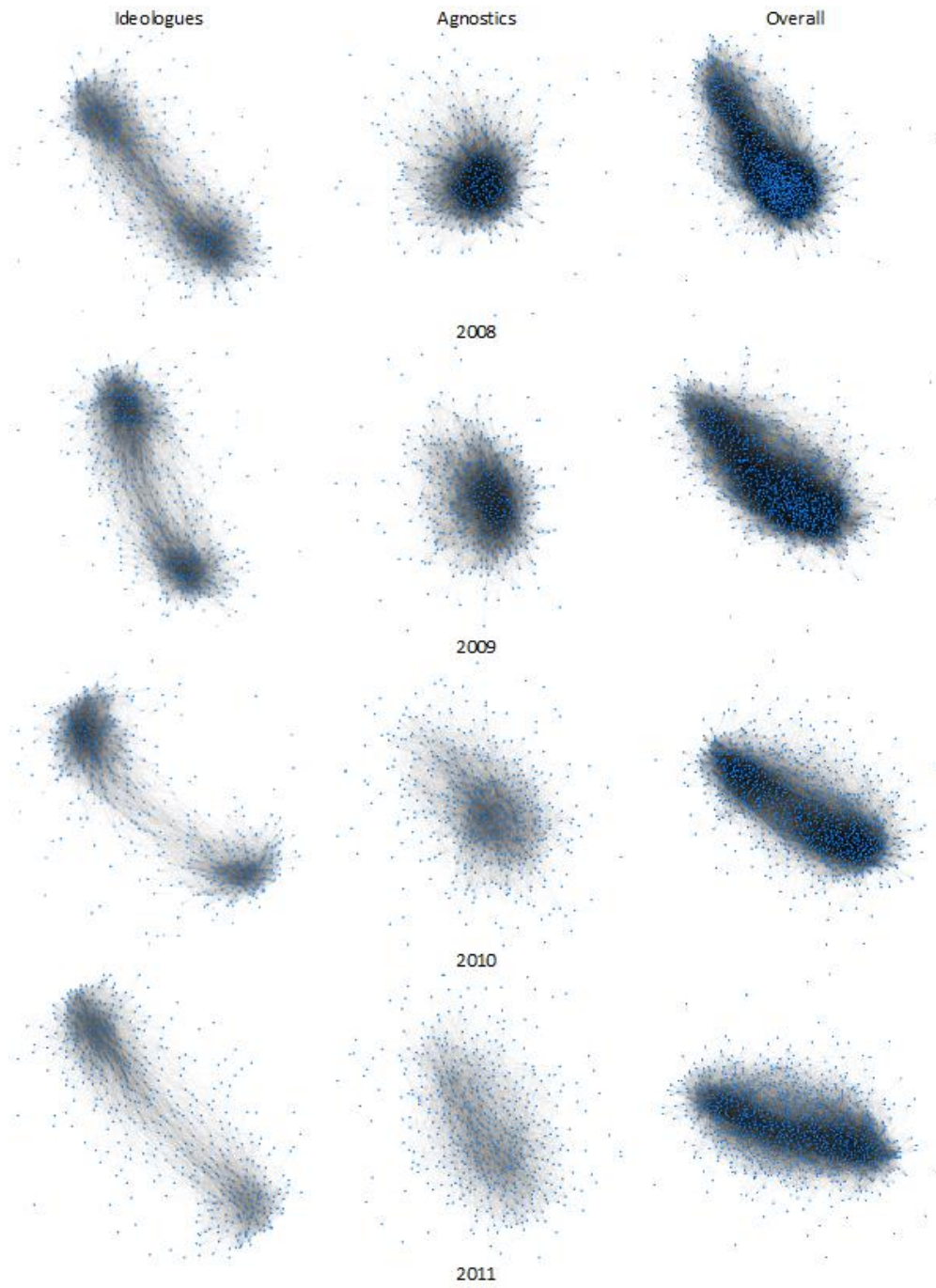Ideologues   Agnostics   Overall

2008

2009

2010

2011

Figure 7. Semantic network: Ideologues and agnostics.

Mean of Issue Domain Scores

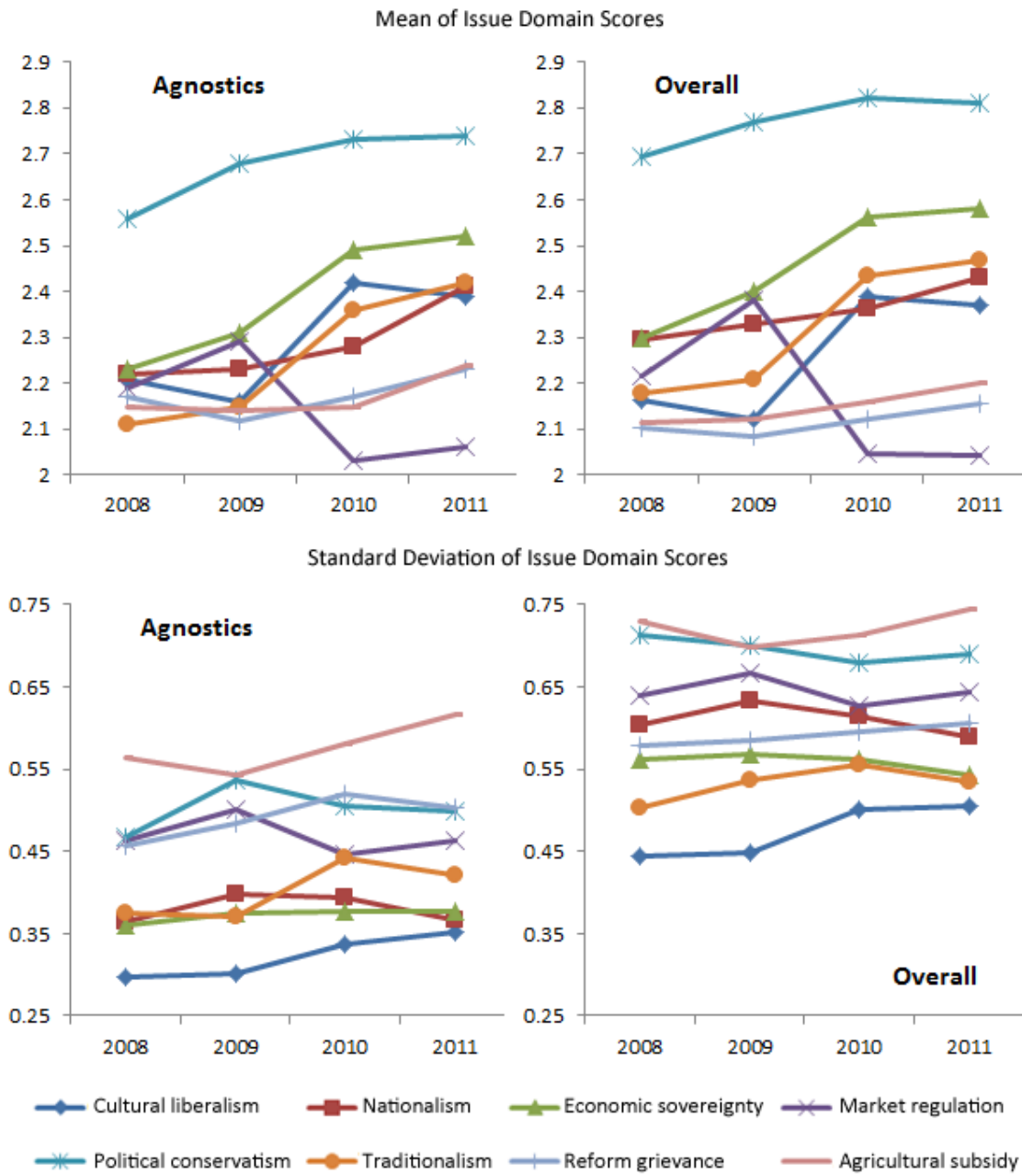Standard Deviation of Issue Domain Scores

Figure 8. Changing political preferences among agnostics.

State of Polarization: Over a New Nationalist Sentiment on the Chinese Internet

With regard to the state of polarization, the findings question the common tendency to concentrate a priori on whether they support the current political system when considering the political attitudes of Chinese Internet users. Instead, this study suggests that China's online ideological landscape divides primarily over militant nationalism. Although strongly correlating with *nationalism* in the identified belief system, the actual scores of *political conservatism* indicate that people, on the whole, tend to disfavor the idea, and more so over time (see Figure 9). It is *nationalism*, instead, that exhibits distinct bimodality (i.e., potent feelings stirred on both sides), and receives slightly below 2.5 average scores (i.e., a weak affinity in aggregation). Therefore, even though among ideologues, nationalist tendencies accompany better tolerance of the current authoritarian regime, drawing an equation between nationalism and regime support may be an exaggeration. This echoes qualitative research on contemporary Chinese nationalism that highlights the persistent tension between popular nationalism and the party-state (Shen & Breslin, 2010; X. Wu, 2007).

Moreover, this study reveals an aggressive "rising China" mentality among the population. The *nationalism* issue domain, as reflected by its constituent statements (see Table 1), stresses a (malign) *nationalist* desire to dominate rather than (benign) *patriotic* loyalty to one's country, which are two distinct orientations (Gries, Zhang, Crowson, & Cai., 2011). Furthermore, the indigenous belief system entails a coalition of this *nationalism* and other values, including *political conservatism*, *economic sovereignty*, and *traditionalism* (see Table 1 and Figure 4). Placed in the larger historical context, this finding may indicate a crucial shift of popular Chinese political beliefs particularly since 2008.

The year 2008, when CPC started recording responses, was "a year of great significance," full of tumult and trauma (Merkel-Hess, Pomeranz, & Wasserstrom*.*, 2009). The Great Sichuan Earthquake was followed by overseas protests during the Beijing Olympics torch relay, and then an unprecedentedly extravagant Olympics with Chinese athletes' outstanding performance. August 2008 also marked the beginning of the financial downturn in the West. Scholars on China's propaganda system note that the state has been using this series of events as opportunities for major propaganda efforts to govern through consent. They observe that the Chinese government strives to renew the country's image both internationally and domestically; material prosperity and traditional values have become increasingly accentuated in media and policies—a sharp contrast to the party-state's earlier attitudes in the history of the People's Republic of China. They further highlight that China's modern-day propaganda is "politics-lite," relying on scientific theory and sophisticated methodology (Brady, 2012). Textual analyses of recent Chinese best-sellers reveal similar findings. For instance, asserting that China should rise as the global superpower through "doing trade with sword," the 2009 book *China Is Not Happy* is considered an embodiment of "capitalist imperialism" (Lu, 2012, p. 12).

Telling the story from the side of Chinese citizens, audiences, and publics, the present study suggests that, in response to larger economic and geopolitical changes mediated by Chinese state propaganda, a China-as-super-power mentality, a new complication of Chinese nationalist sentiment, is indeed emerging. Meanwhile, liberal-oriented ideologues, whose values are individualist and rights-based, and who exhibit certain pluralistic tolerance, stand in comprehensive opposition to this sentiment, which attests to its salience in the popular realm. Identifying the nature of the ideological antagonism is useful

for future research on online debate/deliberation, online activism, collective movements, and political discourses in China.

This study also points to a general ignorance of economics, which bears significance in assessing the prospect of polarization. As the harm of attitude polarization is well acknowledged in advanced democratic societies as militating against social and political stability (DiMaggio et al., 1996), the current polarization on the Chinese Internet as such is pernicious yet on another level: that of establishing democratic culture, civic understanding, and shared political prospects. In recent years, an intellectual war purportedly between the left and the right is reported to dominate China's academic and public discussion (Davies, 2009). The left–right demarcation is also adopted for academic content analysis on online debates and for layperson self-identification (e.g., Le & Yang, 2009; Tea Leaf Nation, 2012). As a correction to this account, this study shows that due to people's fuzzy notions about economic subjects, the popular belief system online does not entail such a clear-cut divide.

Among both ideologues and agnostics, people's understanding of economic subjects, compared to that of other issue domains, is the least organized (see Figure 3). This reflects the absence of principles, such as pro-market liberalization or socialist welfarism, to guide stances on specifics. The weak constraint within this realm confirmed what a CPC creator observed from public discussion on the content of the assessment: "Clueless about economics—this is the collective reaction to the economic statements from most people, myself included" (Farmostwood, 2007). Aside from inadequate general economic education in China, the lack of instituted public participation in economic decision making may be the major historical cause. More importantly, when using substitute economic measures to probe the structure of belief systems, results show no alignment between economic preferences and the liberal-nationalist opposition that divides the cultural and political domains. Those who embrace *cultural liberalism* do not necessarily adopt economic liberalism, and their nemeses in public cyberspace—that is, the nationalists and those politically anti-(Western) democracy—have no better likelihood of caring about economic inequality either (see Figure 6).[8] In fact, this specific lack of ideological orientation suggests much room for conversation, negotiation, and becoming. Compared to mainstreaming liberal or nationalist ideologues, establishing a consensus base with shared knowledge of economic operations and domestic reality throughout the population may be more productive for pulling in the two ends of the polarity.

Process of Polarization:
Polarization Through Internet Use Under Authoritarian Rule?

The results show that polarization as a process increased over time, which largely results from agonistics, who do not think according to the *nationalism–cultural liberalism* binary, constantly dispersing away from the middle ground. The literature on Internet use and ideological polarization in democratic societies may shed light on this finding. Public opinion research emphasizes that different structural

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[8] Although *market regulation* is associated with *nationalism*, without a steady correlation with *reform grievance* and *agricultural subsidy*, it seems to reflect the ready activation of the People's Republic of China's conventional belief in a strong, intervening state rather than being seen as a means to help the poor. Similarly, *economic sovereignty* views the nation as a monolithic economic entity, which by itself does not qualify as economic left.

locations may render a populace systematically heterogeneous in political beliefs (Baldassarri & Goldberg, in press; Converse, 1964). Structural location is constituted by various aspects of social and economic status, and also by Internet use, a dimension proved to assume comparatively more importance in shaping people's opinions in the Chinese context. In fact, what CPC captured from 2008 to 2011 resonates with findings based on national representative samples (Lei, 2011; M. Tang et al., 2012). That is, although the Internet penetrated to more conservative populations of lower education and higher age, participants in general kept distancing themselves from state ideologies and conventional ideas (see Figure 9).

Even more interesting is the apparent polarization that took place within a brief four-year period, whereas in democratic societies, trends of political polarization are examined spanning several decades. Moreover, as in electoral democracies, two-party competition constantly nurtures ideological polarization among the public through all possible channels in everyday life, in China media remain controlled by the party-state and political affairs are reported uniformly on the whole. It is not groundless, therefore, to speculate that in China's case Internet use not only played a role in brewing and propagating doubts about the China-as-superpower mentality; it also facilitated ideological polarization and dispersion revolving around this controversial theme. This supports previous scholarship in emphasizing that the Chinese Internet served as an alternative to education, family, and other social venues, where different political understandings may develop (Lei, 2011; M. Tang et al., 2012; A. Wu, 2012).

Notably, the overarching ideological opposition in the popular political culture, to which ideologues subscribed, predated CPC data collection in 2008. It was thus a legacy from early Internet users, then 15% of the populace. Complementing the present findings, online ethnography and discourse analysis detailed the rich dynamics dating back to early 2006 that gave rise to relevant political discourses in Chinese liberal blogosphere (A. Wu, 2012). Without data on the budding phase of local belief systems, little can be said about how the polarizing trend relates to the establishment of local belief systems (RQ2b). That is, whether, in authoritarian regimes where the state controls ideological apparatuses, the formation of a shared belief system and polarization of public opinion concur as a result of Internet use. However, using RCA to dissect the polarization phenomenon into discrete trends of agnostics and ideologues offers an opportunity to consider possible dynamics between Internet use and opinion changes while taking account of the level of ideological identification.

Never a monolithic term, *Internet use* entails various activities individuals enact in the technology-enabled environment. How Internet access may affect a person's political outlook, therefore, depends on her actual pattern of Internet use and content of habitual exposure. Existing research in Western democracies is concerned with Internet use of two types of citizens: partisans and dropouts. For citizens with partisan identification who are keen on politics and public affairs, Internet technologies may channel their self-enhancing tendency by offering partisan information on demand. It is plausible that the ideologues this study identifies are such politically interested users. Actively seeking political content online, they had thus internalized the established political belief system. They engaged the Internet also in similar ways. Liberals inhabited liberal-leaning blogosphere and forums, such as Bullog (*niubo*) and 1984bbs; nationalists dwelled on their equivalent such as Iron Blood (*tiexue*) and Strong Nation (*qiangguo*). In each niche, inhabitants invested ample energy refuting and ridiculing the alternative stance. The liberal–nationalist polarity persisted.

According to the same Western literature, politically uninterested citizens (sometimes categorized as "avoiders" or "apoliticals"), when granted more options and convenience online, may in turn indulge themselves in the world of entertainment and escape political information altogether (Hindman, 2009; Ksiazek, Malthouse, & Webster, 2010; Prior, 2007). More likely to fall under this category, the agnostics identified by this study may be similarly preoccupied with entertainment-related applications, such as gaming, audio, and video downloads/streaming. Does this mean, then, that whereas ideologues use the Internet to attune their ideological positions according to the dominant belief system, agnostics who are unaware of these abstract principles are more likely to stay put? The results suggest otherwise (see Figure 8). It is the fast dispersion of agnostics, which amounts to the thinning of middle opinion holders, that contributes to the overall polarization phenomenon.

What explains this development may be the way in which the Internet reconfigures the Chinese information regime, which is much more disruptive than it is in Western democracies. In China, switching to the Internet does not *dilute* the apoliticals' political knowledge and participation, because no democratic politics operate off-line to begin with. It seems reasonable to imagine that on the Chinese Internet, these individuals were nonetheless exposed to different sets of political views inaccessible off-line, although likely in a tangential manner. Insufficient contact with political information and conversations from either the liberal or the national niche explains their inability to organize their stances on discrete matters according to the grand liberal–nationalist ideological opposition. Meanwhile, they encountered varied bits and pieces of political discourses that spilled over to their entertainment/leisure-oriented habitats, a phenomenon also noted elsewhere (Wojcieszak & Mutz, 2009). These sporadic encounters may have been responsible for creating substantial diversity in this once-homogenous population that used to stick to state ideology and other dogmas. In general, apoliticals had more reservation on aggressive nationalism, the current political system, and traditionalism; but they found ideas of *cultural liberalism* too radical and out of place (see Figure 9), as these ideas were hard to make sense of without systematic framing and mutual elucidation. In sum, the nature and directionality of opinion changes among agnostics suggest different processes through which Internet use affects apoliticals in nondemocracies: significant diversification consequent of disenchantment with the conventional and authoritative beliefs being maintained by the state on the one hand, and indifference or inability to recognize alternative value preferences on the other.

Conclusion

Taking full account of the Chinese political and cultural context in which the Internet was embedded, it is imperative to think of the technology as not just channeling preexisting opinions but also reconfiguring the information regime and sites of socialization, which may cultivate new stances and mind-sets (Zhao, 2010). On the ground, the Chinese Internet has been teeming with such dynamics for years, during which natural calamities, political events, astounding figures, and arbitrary policies were made into narratives and controversies that engaged millions. The evolving attitudinal structures among online publics within which future political change will occur beg particular scholarly attention.

Relying on a unique historical data set, this study explores ideological polarization among Chinese Internet users assisted by insights from the long-established research tradition on voters' cognition and behavior in democratic societies, including literature concerning Internet use and political polarization. It draws attention to various uncharted features regarding the evolving value systems, political cultures, and

their relations to Internet use in China. First, results on the state of polarization suggest that the overarching ideological division on the Chinese Internet neither splits over regime support, as much scholarship takes for granted, nor is it between the left and the right, as many popular and journalistic accounts assume. Instead, it is a division between cultural liberalism and nationalism. This finding contributes to our understanding of Chinese public opinion, popular political discourse, and online activism. Nationalism is further found to connect to certain political and cultural values, constituting a China-as-superpower mentality. With an expansionist, militant overtone, this new strand of Chinese nationalist sentiment asserts China's superiority over other countries in terms of economic prospect, cultural heritage, and even political system. The antagonism between its subscribers and its liberal-oriented objectors characterizes the Chinese ideological landscape online in the post–Beijing Olympics era of global economic recession.

Second, this study reveals a rapid process of overall polarization, to which two latent interpretive communities contributed differentially. Ideologues recognize the binary belief system and divided accordingly into camps of liberals and nationalists. Agnostics, an equally sizable group whose political preferences lack ideological organization, occupied the middle positions. It is the agnostics' significant diversification over time that accounts for the overall polarization. The study discusses how this observed polarization process may connect to specific Web use patterns in China. It further speculates on how Internet use may have influenced people's political views, especially those of the apoliticals, through different mechanisms when the technology became embedded in nondemocratic societies under stringent information control.

References

Baldassarri, D., & Goldberg, A. (in press). Neither ideologues, nor agnostics: Alternative voters' belief system in an age of partisan politics. *American Journal of Sociology*.

Brady, A.-M. (Ed.). (2012). *China's thought management*. Abingdon, UK: Routledge.

Carlson, A., Gallagher, M. E., Lieberthal, K., & Manion, M. (2010). *Contemporary Chinese politics*. Cambridge, UK: Cambridge University Press.

China Internet Network Information Center. (n.d.). Retrieved from http://www1.cnnic.cn/index.htm

Chinese Political Compass (CPC). (n.d.). Retrieved from http://zuobiao.me

Converse, P. E. (1964). The nature of belief systems in mass publics. In D. Apter (Ed.), *Ideology and discontent* (pp. 206–261). New York, NY: Free Press.

Damm, J. (2007). The Internet and the fragmentation of Chinese society. *Critical Asian Studies, 39,* 273–294.

Davies, G. (2009). *Worrying about China*. Cambridge, MA: Harvard University Press.

DiMaggio, P., Evans, J., & Bryson, B. (1996). Have Americans' social attitudes become more polarized? *American Journal of Sociology, 102,* 690–755.

Esarey, A., & Xiao, Q. (2011). Digital communication and political change in China. *International Journal of Communication, 5,* 298–319.

Farmostwood. (2007). Walking left, walking right [Chinese]. Retrieved from http://blog.farmostwood.net/167.html

Farmostwood. (2008). Periodic summary of the Chinese Political Compass (BDWM version) [Chinese]. Retrieved from http://blog.farmostwood.net/politics_bdwm_2008summary

Freeman, L. (1979). Centrality in social networks conceptual clarification. *Social Networks, 1,* 215–239.

Friendly, M. (2002). Corrgrams. *The American Statistician*, *56*(4), 316–324.

Goldberg, A. (2011). Mapping shared understandings using relational class analysis: The case of the cultural omnivore reexamined. *American Journal of Sociology, 116,* 1397–1436.

Gries, P. H., Zhang, Q., Crowson, H. M., & Cai, H. (2011). Patriotism, nationalism and China's US policy: Structures and consequences of Chinese national identity. *The China Quarterly*, *205*, 1–17.

Hindman, M. (2009). *The myth of digital democracy*. Princeton, NJ: Princeton University Press.

Hollander, B. A. (2008). Tuning out or tuning elsewhere? Partisanship, polarization, and media migration from 1998 to 2006. *Journalism & Mass Communication Quarterly, 85,* 23–40.

Iyengar, S., & Hahn, K. S. (2009). Red media, blue media: Evidence of ideological selectivity in media use. *Journal of Communication, 59,* 19–39.

Klapper, J. T. (1960). *The effects of mass communication*. New York, NY: Free Press.

Knobloch-Westerwick, S., & Meng, J. (2011). Reinforcement of the political self through selective exposure to political messages. *Journal of Communication, 61,* 349–368.

Ksiazek, T. B., Malthouse, E. C., & Webster, J. G. (2010). News-seekers and avoiders: Exploring patterns of total news consumption across media and the relationship to civic participation. *Journal of Broadcasting & Electronic Media,* 54, 551–568.

Le, Y., & Yang, B. (2009). Ideological and political factions of China's Internet users [Chinese]. *Twenty-First Century, 112,* 22–36.

Lei, Y.-W. (2011). The political consequences of the rise of the Internet: Political beliefs and practices of Chinese netizens. *Political Communication, 28,* 291–322.

Li, S. (2010). The online public space and popular ethos in China. *Media, Culture & Society, 32,* 63–83.

Liu, F. (2010). *Urban youth in China*. New York, NY: Routledge.

Lu, X. (2012). A Burkean analysis of *China Is Not Happy*: A rhetoric of nationalism. *Chinese Journal of Communication, 5,* 194–209.

Luskin, R. C. (1987). Measuring political sophistication. *American Journal of Political Science, 31,* 856–899.

Merkel-Hess, K., Pomeranz, K., & Wasserstrom, J. N. (2009). *China in 2008: A year of great significance*. Lanham, MD: Rowman & Littlefield.

Monge, P. R., & Contractor, N. (2003). *Theories of communication networks*. New York, NY: Oxford University Press.

Nathan, A. J., & Shi, T. (1996). Left and right with Chinese characteristics: Issues and alignments in Deng Xiaoping's China. *World Politics, 48,* 522–550.

The Political Compass. (n.d.). Retrieved from http://www.politicalcompass.org

Prior, M. (2007). *Post-broadcast democracy.* New York, NY: Cambridge University Press.

Shen, S., & Breslin, S. (2010). *Online Chinese nationalism and China's bilateral relations*. Lanham, MD: Lexington Books.

Shi, T., & Lou, D. (2010). Subjective evaluation of changes in civil liberties and political rights in China. *Journal of Contemporary China, 19,* 175–199.

Stewart, D. W. (1981). The application and misapplication of factor analysis in marketing research. *Journal of Marketing Research, 18,* 51–62.

Stroud, N. J. (2008). Media use and political predispositions: Revisiting the concept of selective exposure. *Political Behavior, 30,* 341–366.

Sunstein, C. R. (2007). *Republic.com 2.0*. Princeton, NJ: Princeton University Press.

Tang, L., & Sampson, H. (2012). The interaction between mass media and the Internet in non-democratic states: The case of China. *Media, Culture & Society, 34*, 457–471.

Tang, M., Jorba, L., & Jensen, M. J. (2012). Digital media and political attitudes in China. In E. Anduiza, M. J. Jensen, & L. Jorba (Eds.), *Digital media and political engagement worldwide*. Cambridge, UK: Cambridge University Press.

Tang, W. (2005). *Public opinion and political change in China*. Stanford, CA: Stanford University Press.

Tea Leaf Nation. (2012). A pictorial guide to China's politics: Left v. right. Retrieved from http://tealeafnation.com/2012/02/a-pictorial-guide-to-chinas-politics-left-v-right

Wallis, C. (2011). New media practices in China: Youth patterns, processes, and politics. *International Journal of Communication, 5,* 406–436.

Wheeler, A. (2011). Some example corrgrams in SPSS base graphics. Retrieved from http://andrewpwheeler.wordpress.com/2011/12/21/some-example-corrgrams-in-spss-base-graphics/

Wojcieszak, M. E., & Mutz, D. C. (2009). Online groups and political discourse: Do online discussion spaces facilitate exposure to political disagreement? *Journal of Communication, 59,* 40–56.

Wright, K. B. (2005). Researching Internet-based populations: Advantages and disadvantages of online survey research. *Journal of Computer-Mediated Communication*, *10.* doi: 10.1111/j.1083-6101.2005.tb00259.x

Wu, A. X. (2012). Hail the independent thinker: The emergence of public debate culture on the Chinese Internet. *International Journal of Communication, 6*, 2220–2244.

Wu, X. (2007). *Chinese cyber nationalism.* Lanham, MD: Rowman & Littlefield.

Zhao, Y. (2010). Directions for research on communication and China. *International Journal of Communication, 4,* 573–583.