From Choice to Gridlock:

Dynamic Bases of Constructive versus Dysfunctional Political Process

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Running Head: Political Dynamics
Abstract

Contemporary politics are characterized by gridlock and conflict, with politicians and lay people of competing political orientations becoming increasingly homogenous on policy positions and divergent relative to those of the other orientation. The dysfunctional state of political process is explored from the perspective of dynamical social psychology, which highlights the tendency for elements of psychological systems to become progressively coordinated and coherent. In social systems, this tendency is manifest as a press for uniformity among members in their beliefs, attitudes, and values. Because people differ in their initial opinions and in their respective strength (e.g., power, expertise, knowledge), this press has the ironic effect of creating clusters of people holding opinions that differ from those held by the majority. Computer simulations are described that depict how clusters of minority opinion emerge and how these opinions can become the majority perspective under certain conditions. Clustering allows minority viewpoints to survive, which is beneficial, but it can also freeze a social system into competing factions that cease working together toward common goals. Certain factors in today’s world (e.g., communication technology) can enhance the dysfunctional potential of clustering. The dynamical perspective provides a basis for speculation about political process in the 21st century.

(200 words)
From Choice to Gridlock:

Dynamic Bases of Constructive versus Dysfunctional Political Process

During the 1964 U.S. presidential race, the Republican candidate Barry Goldwater derided the Republican establishment, arguing that the American public deserved “a choice, not an echo.” His point was that the Republican party was too aligned with the liberal ideology of the Democratic party and thus did not provide a clear choice for voters. Goldwater wanted to reshape his party to challenge decades-long policies based on this ideology, particularly those concerning the economy and social welfare, and to offer instead a vision that reflected an America he felt was more in line with that of the country’s founding fathers.

It’s hard to know whether Goldwater would be pleased with the current state of political discourse in the U.S., but he would certainly have to acknowledge that voting for one party rather than another represents a choice rather than an echo. Republican and Democratic party members, both elected government officials and activists within the party organization, have become increasingly homogenous on policy positions and more divergent relative to members of the other party (Garner & Palmer, 2010; Jensen, Kaplan, Naidu, & Wilse-Samson, 2012; McCarty, Poole, & Rosenthal, 2006). Indeed, the two parties today are at odds concerning policy issues to the point of gridlock. Particularly on domestic and economic issues (e.g.,
healthcare, climate change, taxation, minimum wage, social welfare, education, federal regulations on corporate activity, environmental protection, funding for basic science, education, immigration, subsidies for fossil fuels, funding for alternative energy), the respective bases of the two parties have little if any common ground and thus little interest in compromising to advance legislation.

The increased schism between Republicans and Democrats is illustrated in Figures 1. Each node represents a senator (blue for Democratic, red for Republican) and the intensity of the links between two senators represents the frequency with which they voted in the same way. In 1989 (101st Congress), there was considerable overlap between the parties; even senators at the extreme wings of each party (those at the left and right edges) crossed party lines to cast a common vote. By 2013, however, the links were almost exclusively within each party, indicating virtually no “common cause” voting. In 25 years, the functional network of the Senate had gone from a fairly integrated “ball” of interconnected individuals to separate self-contained clusters.

(Figure 1 about here)

The transformation of American politics from a two-party system with overlapping values and agendas to a two-party system defined in terms of conflict over issues large and small is the focus of considerable speculation (e.g., Mason, 2012; Galston, 2006; Mutz, 2006; Nivola & Brady, 2006; Layman, Carsey,
Horowitz, & Manasce, 2006; Garner & Palmer, 2010; Reilly, 2001). For the most part, these analyses focus on the readily observable surface factors in play, such as the role of mass media, the increasingly sophisticated nature of party and interest group organization, the influence of lobbyists, and the unrestricted money used to fund campaigns and influence voters. The importance of these factors cannot be denied. But group schism is not limited to politics. To the contrary, there is a pervasive tendency for a group of interacting individuals—whether a neighborhood, an organization, or a nation—to develop a structure reflecting subsets of individuals who differ, even nominally, on one or more dimensions of interest (e.g., Abrams & Hogg, 1990; Brewer, 1979; Crano, 2012; Heider, 1958; Sherif, Harvey, White, Hood, & Sherif, 1961; Tajfel, 1982).

With this in mind, what looks like a political and historical issue—the increasing divergence of political parties in contemporary United States—can be reframed in terms of social psychological principles. Actually, the issue is even more basic than psychology. In recent years, the principles and methods of nonlinear dynamical systems, which have provided integration for a wide variety of topics in the physical sciences (e.g., Strogatz, 2003; Schuster, 1984), have been adapted to the subject matter of social psychology (e.g., Vallacher & Nowak, 2007; Vallacher, Read, & Nowak, 2002). So rather than focusing on the motives that characterize the surface features of group dynamics (e.g., dominance, need to
belong, trust), this chapter explores contemporary political process in terms of basic dynamic principles that find expression in a wide variety of personal, interpersonal, and collective processes (Vallacher, Van Geert, & Nowak, in press).

The first section provides an overview of the dynamical perspective and describes a formal model of group dynamics generated by this perspective. This model illustrates how the iteration of a minimal set of rules can promote the emergence of majority and minority opinion in a social system and reversals of these opinions under certain conditions. The next section develops the implications of this model for political process and provides insight into how this process can become dysfunctional when various factors are introduced. The chapter concludes with speculations about the future of political process in light of the dynamics of group functioning described in the preceding sections.

**Dynamic Foundations of Group Structure**

In the dynamical perspective, the phenomenon of interest is conceptualized as a set of interconnected elements that evolves in time, with the elements influencing each other to achieve a coherent state that characterizes the system as a whole. Elements can represent anything from neurons (in neural systems) to individuals (in relationships or groups) to nations (in international relations). Mutual influence means that the elements may change their state to achieve a coherent global state. In mental systems, divergent momentary mental states (thoughts, memories)
converge over time on a global perspective (e.g., attitude, narrative) that provides higher-order meaning for the lower-level thoughts. In social systems, coherence takes the form of a shared reality, with members of the group or society adjusting their higher-order mental states to embrace shared beliefs, values, and norms.

**Self-Organization, Emergence, and Multistability**

Because the elements of a system adjust their states in response to one another, the process is referred to as *self-organization* (e.g., Holland, 1995; Kelso, 1994; Strogatz, 2003). If the individual elements are initially in very different states, many iterations of mutual influence may be necessary before the system converges on a higher-order state that provides system-level coherence. If individuals in a group initially have very different attitudes, for example, many rounds of social interaction may be necessary before they come to agreement regarding the issue.

The higher-order state that emerges by means of self-organization constrains the subsequent behavior of the system and its component elements. In a social system, once the members of a group have converged on a shared reality (e.g., an attitude or moral value), contradictory information and internal dissent represent threats to the system’s coherence and are actively resisted. The source of disruptive information can be suppressed, for example, and a group member who challenges the prevailing group perspective can be marginalized or punished.
A single higher-order state, however, may prove unable to provide coherence for all the system’s elements. A social system, for example, may consist of individuals whose opinions are difficult to reconcile with the prevailing collective perspective. In such cases, another coherent state may emerge that provides an alternative frame for integrating members’ opinions. Systems characterized by two (or more) coherent states that vie for dominance are referred to as multistable. Multistability has implications for change in a system’s behavior. If one coherent state is undermined, the system (or subsets of the system) may shift to the alternative coherent state rather than undergo adjustments to the first state. Change, in other words, tends to be abrupt and dramatic (nonlinear) rather than gradual and incremental. Social systems, for example, may be characterized by competing perspectives, such as liberal versus conservative ideology, that vie for dominance in public opinion. If change occurs, it can appear to be out of proportion to the events or information that challenged the prevailing view (Nowak & Vallacher, 1998, 2001; Vallacher & Nowak, 2007).

A transition from one coherent state to another is especially likely when the topic has high subjective importance for members of the social system (Latané & Nowak, 1994). When considering an important economic issue, for instance, a society may change rapidly and in dramatic fashion from one perspective (e.g., liberal sympathy for immigrants) to a conflicting perspective (e.g., intolerance of
Attempts to achieve common ground between individuals or groups with equally coherent but distinct perspectives can prove difficult, if not futile, when the issue is emotionally charged and subjectively important.

Uniformity in Groups

Putting people together in groups should be a breeding ground for chaos and conflict. The potential for self-interest to bias one’s interactions with others would seem to guarantee highly complex and constantly evolving patterns of group behavior as the members attempt to advance their respective egoistic agendas. Extensive research on group dynamics, however, suggests quite the opposite—interacting individuals tend to become increasingly uniform over time in their beliefs, opinions, and desired courses of action (e.g., Festinger, Schachter, & Back, 1950). Even if the group members initially disagree with one another, there is a tendency for uniformity in beliefs and opinions to develop over time. The group-level outcome of social interaction, however, does not simply reflect a compromise among members’ individual opinions. Instead, the opinion that emerges as a result of repeated social interactions is typically more extreme than the average of group members’ initial opinions (Moscovici & Zavalloni, 1969; Myers & Lamm, 1976).

The press for uniformity among interacting individuals has clear adaptive benefits, providing the social consensus and coordination necessary for group action and harmony. But this dynamic tendency has downsides as well. It can
promote mindless conformity to inaccurate perceptions of reality (e.g., Asch, 1956; Sherif, 1936), undermine the self-regulatory mechanisms necessary for impulse control (Zimbardo, 1970), and lead to decisions and recommendations that reflect a greater concern with reaching consensus than with developing an effective policy (e.g., Janis, 1972). Once a group has achieved a shared reality, moreover, any member who challenges the validity of this higher-order state by expressing a contrary view is subject to enormous pressure to change (Schachter, 1951). If the emergence of group-level coherence were the only dynamic at work, dissenting points of view would be stifled, if not eliminated altogether. Adaptive group functioning requires a balance between intrinsic dynamics promoting group uniformity and an oppositional dynamic tendency that allows for the survival of opinions that depart from the prevailing group sentiment.

The Emergence of Majority and Minority Structure

There is abundant evidence that majority and minority opinion can co-exist in a social system (Crano, 2012). The dynamic properties described above—mutual influence among interconnected elements, self-organization, multistability, and nonlinear change—provide insight into how this is accomplished. All that is needed to complete the picture is insight into the nature of influence among the individuals ("elements") comprising the political system. Such insight is provided in a formal model initially developed by Nowak and his colleagues (e.g., Nowak,
Szamrej, & Latané, 1990). Computer simulations of this model show how the iteration of a few simple rules of reciprocal influence are sufficient to generate stark division in a social system, with different attitudes becoming segregated in clusters of like-minded individuals. Ironically, the same rules that promote uniformity in groups are responsible for the survival of minority opinion.

The model assumes that social influence has two basic functions—one describing the combined effect of different people on a single person, the other describing how a single person’s influence is divided across different people (Latané, 1981). Three variables are common to both functions: the number of people influencing or being influenced, the respective strength of these people, and the physical or psychological immediacy of the people to one another. The influence of a group grows as a power function of the number of people with an exponent of about 0.5. The joint effect of the group’s influence thus grows as a square root of the number of group members. Strength represents an individual’s potential for influence; it can reflect both stable characteristics (e.g., social status, persuasive skill) and topic-relevant attributes (e.g., relevant knowledge). Finally, influence depends on the immediacy of individuals, with influence decreasing as a square of the physical or psychological distance between individuals.

In computer simulations, each individual is characterized by three properties: his or her opinion on a topic, his or her strength, and his or her position in a social
space. For simplicity sake, individuals are characterized as having one of two opinions on an issue (e.g., pro vs. con)—a reasonable assumption for important issues, which tend to admit to two coherent but competing perspectives (Latané & Nowak, 1994), as noted earlier. The group is modeled as a cellular automata consisting of $n$ individuals, represented as boxes (cells) on a two-dimensional grid (see Fig. 1). The color of the box represents the individual’s opinion (e.g., light gray denotes pro, dark gray denotes con), and the height of the box represents the individual’s strength. Each individual discusses the issue with other group members to learn the degree of support for each opinion. He or she gives the greatest weight to the opinions of members who are closest to him or her and have the greatest strength. An individual’s own position is also taken into consideration and given the greatest weight by virtue of immediacy (minimal distance). In each round of interaction, each individual adopts the opinion that is most prevalent. Specifically, the strength of influence of each opinion is expressed as follows:

$$I_i = \left( \sum_{j=1}^{N} \left( \frac{s_j}{d_{ij}^2} \right)^2 \right)^{1/2}$$

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1 The spatial configuration in cellular automata is not intended to convey a literal translation of physical space, but rather is a representation of a basic social space. Individuals may have high psychological immediacy despite being on different continents, for example, if they interact frequently by social media, skype, and the like. By the same token, individuals who are physically adjacent (e.g., in a residential neighborhood) may have little or no contact and thus have very low immediacy.
where $I_i$ denotes total influence, $s_j$ corresponds to the strength of each individual, and $d_{ij}$ corresponds to the distance between individuals $i$ and $j$.

To begin the process, one individual is chosen at random, and influence is computed for each opinion in the group. If the resultant strength for an opinion (e.g., pro) is greater than the strength of the individual’s current position (con), his or her opinion changes to match the prevailing position. This process is then repeated for each individual in the group. The procedure is then repeated until there are no further changes in the distribution of opinions in the group. This typically requires several rounds of simulated discussion, because a person who had previously changed his or her position to match that of his or her neighbors may revert to the original position if the neighbors change their opinions.

Representative results of the computer simulations are presented in Figure 2. Figure 2a represents the starting configuration, consisting of a majority of 60% (light gray) and a minority of 40% (dark gray). The majority and minority members are randomly distributed, and each group has the same proportions of strong and weak individuals (tall vs. short boxes). Figure 2b depicts the equilibrium that is reached after six rounds of simulated discussion. The majority is now 90%, leaving only a 10% minority. Note, however, that the minority opinion has survived by forming clusters of like-minded people and that these clusters are largely formed around strong individuals.
These two group-level outcomes—polarization and clustering—are routinely observed in the computer simulations of the model (cf. Latané, Nowak, & Liu, 1994). Polarization reflects the greater influence of the majority opinion. In the initial random configuration (Fig. 1a), the average proportion of neighbors holding a given opinion corresponds to the proportion holding this opinion in the group as a whole. Because the average group member is surrounded by more majority than minority members, minority members are more frequently converted to the majority position than vice versa. Majority members are converted to the minority position, though, if they are located close to an especially influential minority member, or if more minority members happen to be at this location.

Clustering results from the relatively strong influence exerted by an individual’s neighbors. When opinions are distributed randomly, the sampling of opinions through social interaction provides an accurate depiction of the distribution of opinions in the larger group. However, when opinions are clustered, the same sampling process yields a highly biased result. Because the opinions of one’s closest neighbors are given the greatest weight, the prevalence of one’s own opinion is likely to be over-estimated. Hence, opinions that are in the minority in global terms can form a local majority. Individuals can therefore maintain a minority opinion in the belief that it represents a majority position. Clustering is a
pervasive feature of social life, evident in attitudes, religions, musical preferences, and clothing fashions, as well as in political ideology (e.g., Latané, 1981).

Various factors have been identified that stall the progressive integration process, preventing complete unification and hence preserving minority opinions in groups (Latané & Nowak, 1997; Lewenstein, Nowak, & Latané, 1993; Nowak, Lewenstein, & Frejlak, 1996). Individual differences in strength, for example, are critical to the survival of minority clusters. By counteracting the sheer number of majority opinions, strong leaders prevent minority clusters from decaying.

Individual differences in strength, moreover, tend to become correlated with opinions: because the weakest minority members will most likely adopt the majority position, the average strength of the remaining minority members will grow over time at the expense of the majority. This scenario provides insight into why individuals advocating minority positions are often more influential than those advocating majority positions (e.g., Moscovici, Lage, & Naffrechoux, 1969).

Minority survival is also made possible by nonlinearity in attitude change. When individuals can move incrementally adjust their opinions (e.g., from “slightly pro” to “extremely pro”), groups invariably become unified in their support of the majority opinion (Abelson, 1979). When attitudes are binary (e.g., either “pro” or “con”), however, change is nonlinear, operating in accord with a threshold function. Thus, individuals maintain their opinion until social influence
reaches a critical level, at which point they switch from one categorical position (e.g., pro) to the other (con). There is a clear contrast, then, between a linear change rule, which implies a normal distribution of opinions, and a nonlinear change rule, which implies a bimodal distribution. Whereas the linear rule promotes unification, the nonlinear rule enables minority opinion to survive in clusters. As noted earlier, a normal distribution tends to develop for relatively unimportant attitudes, but a bimodal distribution is typically observed for attitudes of high personal importance (Latané & Nowak, 1994). This suggests that social consensus can be achieved by decreasing the subjective importance of the topic. In the political arena, such detachment is unlikely to be observed.

**Implications for Political Dynamics**

The political arena has a natural resonance with the dynamic properties outlined above. Individuals, whether citizens or elected representatives, communicate with one another regarding subjectively important issues. The people with whom an individual interacts most frequently and who have the greatest strength (e.g., credibility, charisma, communication prowess) have a disproportionate impact on his or her opinions. If the individual is strong, he or she can resist influence to change his or her opinions (up to a point) and he or she can have a disproportionate impact on others. Over time, the group will move in the direction of the opinion that is most prevalent. The minority point of view,
however, will survive in clusters of like-minded individuals who are stronger on average than individuals holding the majority opinion. Because of their greater strength, these individuals can hold their own despite the pressure from the majority, as expressed by politicians, the media, or the public at large. A point of view (e.g., policy stance, ideological position) that appears to be marginalized, in other words, can continue to survive, find expression, and even win converts.

The Double-Edged Sword of Clustering

The survival of minority opinion is clearly important for the adaptive functioning of a social system—whether an organization, an academic department, or a society. To be sure, a shared reality reflecting convergence on common values, beliefs, knowledge, and standards of conduct is essential for social harmony and collective action that requires trust and cooperation (e.g., Festinger, 1950; Steiner, 1972). But diversity of opinion is equally essential. Dissent and contrary views allow groups to correct collective decisions that could prove counter-productive, to adapt to new information and changing circumstances, and to introduce new ways of thinking and acting (e.g., Crano, 2012; Janis, 1972; Johnson, 2010; Moscovici & Nemeth, 1974; Page, 2008). In light of the tendency for social systems to develop a shared reality, the countervailing forces that prevent the collapse of minority opinion can be viewed in a positive light. A healthy social system is one in which these oppositional tendencies—the convergence on a shared
reality and the survival of minority perspectives—work in tandem to promote adherence to shared goals while remaining the flexibility to change course when such accommodation is called for.

An optimal balance between achievement of a shared reality and maintenance of minority opinion, however, is becoming increasingly difficult to achieve in contemporary life (Vallacher, Coleman, Nowak, Bui-Wrzosinska, Liebovitch, Kugler, & Bartoli, 2013). Throughout the vast majority of human history, social interaction occurred face-to-face in the context of groups of people who occupied a common geographical space. In daily life, one could not avoid contact with others who had somewhat different life experiences and personalities, and who held views that did not always square with one’s own. Such contact may have prompted attempts to influence one another to adopt the same views, but at least people were exposed to alternative ways of thinking and acting.

In today’s world, technology has given people the power to control their interpersonal contacts and exposure to contrary ideas. With telephones and social media, we can ignore our next-door neighbors and reach out instead to people elsewhere on the planet who share and thus support our desires, values, and beliefs. The evolution of the internet over the past two decades has reinforced the self-selection into networks of like-minded others. From blogs and forums to websites catering to narrowly defined perspectives, people can find support for ideas and
beliefs that are not only different from that of their neighbors but out of step with those that are widely shared in society. Conspiracy theories that might otherwise be challenged or discredited, for example, are able to flourish without fear of contradiction because of the opinion clustering made possible by the internet.

Even television, which was originally envisioned as a medium for providing common news and entertainment to people who otherwise would not interact and share the same information, has become a source of clustering that works at odds with a shared reality. The reality of people who watch FOX news often has little overlap with the reality of those who watch MSNBC. The input to both forums may be the same—a school shooting, a congressional action, or a snowstorm for that matter—but by the time the raw information is framed by news anchors and a ready arsenal of commentators, it has been assimilated to a higher-order frame that is consistent with the prevailing perspective of the respective networks.

The increasing gridlock in contemporary politics is easy to appreciate from this perspective. In formal terms, social influence in Goldwater’s time conformed to the same basic dynamics as it does in ours. Politicians maintained or changed their positions depending on the prevailing opinions of those with whom they interacted, reflecting the tendency for people to adopt a shared perspective. But things were considerably different fifty years ago. For one thing, there was far less jet travel enabling politicians to head home every weekend. Consequently, they—like
humans throughout history—had sustained face-to-face contact with others sharing the same space (e.g., the halls of Congress, the northwest quadrant of Washington DC) on a fairly continual basis. Democrats and Republicans talked to each other, even socialized on occasion, and certainly smoked cigars together. This spatial constraint alone may have curbed the tendency to communicate only with like-minded others and think only within the confines of the resultant clusters.

Of greater significance are the other features of 21st century technology noted above. Politicians, like lay people, can self-select with whom they interact and communicate by means of social media (Twitter, Facebook, etc.), internet websites, and television networks. It is one thing for the average citizen to create and retreat into virtual echo chambers that reinforce any imaginable idea or belief. When politicians do the same, the consequences are potentially more significant and dire. Beliefs bordering on conspiracy theories—that President Obama is not really a U.S. citizen, that climate change is a hoax, that there is a secret wing of the Government intent on rounding up dissidents, that the terrorist attacks of 9/11 were known in advance by the Bush administration—can go unchecked when politicians communicate only with people who share these beliefs.

But the more troubling aspect of the nature of clustering made possible by technology is the inability—or felt lack of necessity—of people in political life to respect and tolerate, let alone accommodate to, alternative perspectives and
opinions. When politicians no longer feel the need to forge a shared reality with their opponents, gridlock is an inevitable consequence. Why compromise when one receives social support from one’s enclave of colleagues and supporters, and lots of campaign (and lobbyist) money from those on the outside who share one’s views? Clustering of minority opinion may be a safeguard against tyranny of the majority, but in today’s environment it can also stand in the way of compromise solutions that would advance the collective good.

*Volatility in Political Advantage*

There are sometimes marked shifts in political sentiment and corresponding shifts in the relative popularity of political parties. An ideology or policy position that had been held only by a minority of citizens (and politicians) can suddenly become a majority opinion in the society. A host of ideas and policies—for example, gay marriage, the legalization of marijuana, racial integration, and abortion rights—that were once marginalized in public opinion have become embraced by the majority of people in the U.S. and elsewhere in a relatively short time-span. The model of dynamic social impact shows how a minority opinion can survive if it can create coherent clusters of individuals sharing that opinion. But for a society to undergo a transition, the minority opinion has to go beyond survival to supplant the majority position. This is unlikely to occur unless the minority opinion has some advantage in its appeal vis a vis the majority opinion.
Such reversals in relative appeal are conceivable in light of the tendency for multistability to emerge in systems. In many societies, for example, there is tension between the competing narratives of individualism, with its emphasis on personal responsibility, and interdependence or collectivism, with its emphasis on social responsibility and sensitivity to the needs of others (e.g., Markus & Kitayama, 1991; Nisbett, 2003; Triandis, 1995). A change in social, economic, and environmental conditions can conceivably promote a swing from one orientation to the other. When cultures experience scarce resources, for example, people tend to act in line with collectivist attitudes, sharing rather hoarding whatever resources are available (Smaldino, Schank, & McElreath, 2013).

Insight into the reversal of majority and minority opinion, including political preference, has been generated within the cellular automata platform of social influence (Nowak, Lewenstein, & Szamrej, 1993; Nowak & Vallacher, 2001). An attitude or policy may come to be viewed as more compatible with a society’s value system, more advantageous in some way, or simply more prominent because of mass media exposure or external events. Nowak et al. (1993) represented the join effect of such factors in the model by introducing “bias” into the simulation rules. They did this by simply adding a constant value to favor one of the attitude positions. Computer simulations were then run to determine the combined effects of social interaction and bias.
Figure 3 depicts a typical result of the simulations when there is a bias favoring the minority position. Panel A shows a starting configuration of 10% minority, randomly distributed in the population. The minority opinion would not be able to survive in this configuration without the presence of bias, because its low frequency in the population makes it hard for its advocates to find like-minded people with whom they can cluster. Because of bias, however, the minority opinion is able to grow, as indicated in Panel B. Note that the new opinion forms clusters around the original seeds of the minority opinion. As Panel C shows, the clusters of new continue to grow and begin to connect with one another. When the clusters of initial minority become fully connected, the initial majority is reduced to island-like clusters. Finally, a new equilibrium is reached—although clusters of the old opinion still exist, well entrenched as islands in the “sea of new” (Panel D).

(Insert Figure 3 about here)

It might appear from Panel D that the transition is complete and irreversible, because the initial majority has been reduced to 20%. Just such a scenario was observed in the late 1980s and early 1990s in former East bloc countries. All referendums and elections were won decisively by anti-Communist parties. In Poland, for example, not a single communist candidate was elected to Parliament in that country’s first free election. Note, however, that the strongest and best-connected members of the initial majority manage to survive the pressure of the
new. As Panel D shows, these individuals now exist in strongholds. This suggests that when bias is withdrawn, a new equilibrium should be reached that favors the initial majority opinion. This scenario, illustrated in Panel E, was in fact observed when people in these countries experienced the costs of the political and economic transformation that had occurred. The old opinion now experiences a rebound, growing to 50% (Panel E). Finally, Panel F shows a reversal of bias, with public opinion favoring the old opinion. As a result, the new opinion is reduced to 20%.

It took about 40 simulation steps with the bias favoring the new opinion for it to prevail, but it took only 5 simulation steps for the old opinion to rebound. But although the new is greatly reduced in numbers, it can survive the pressure of the majority because it now exists in strongholds. Hence, when social sentiments change once again, the new can launch an offensive from these strongholds.

This scenario predicts a potential for dramatic swings in public opinion and political preference under conditions characterized by change and discontent. During periods of societal transition, there may be well-defined strongholds for both the old and the new. The rest of the society can switch between these two options, depending on the momentary bias favoring one over the other. This explains why in almost all European countries of the old socialist camp, post-Communist parties suffered a humiliating defeat but were often able to win the
next election. People who were prominent (i.e., strongest) during the Communist era tended to form networks that provided strongholds for their opinions.

Even relatively stable societies, however, are not immune to events and conditions that can promote notable swings in political preference on a fairly fast timescale. The collapse of the U.S. housing market and the ensuing economic recession in 2008, for example, ushered in several years of shifting ascendance by the Democrat and Republican parties. With each shift in public sentiment, the weaker (i.e., politically disengaged or engaged but ambivalent) members of society were influenced by events to change their preference. However, the respective base of each party, comprised of people who were highly partisan and fully engaged, maintained their political preference even when their views were unpopular on a societal level. When conditions changed—or when expectations were not fulfilled by politicians representing the majority position—the marginalized minority position garnered renewed attention and gained adherents.

In this dynamic, each swing in public opinion creates clusters of increasingly strong individuals, so that the body politic in effect becomes a battle between true believers whose primary concern is victory rather than finding common ground. Those who remain open-minded or uninvolved, and thus weak in social influence, represent the spoils of combat. Ironically, these individuals—Independents who either lack clear positions (unstable) or appreciate both sides of an issue
(multistable)—play the decisive role in elections, precisely because of their susceptibility to shifting conditions that bias attitudes in one direction or another.

**The Future of Political Process?**

The dynamical perspective sheds light on the nature of political process generally and on the current state of politics in democratic societies. Theories are judged not only by their explanatory power, however, but also by their ability to predict—or perhaps even control—how phenomena will be manifest in the future. The picture painted in this chapter is not exactly rosy. The balance between progressive unification of opinion and survival of minority viewpoints has been upset in recent decades, in part because of new means by which a minority opinion can survive in clusters that are immune to influence from the majority. Short of a nuclear holocaust that reduces civilization to stone-age existence, the technology that is largely responsible for this imbalance is not going to disappear. If anything, the pace of technological change is increasing, and the nature of this change seems tilted in favor of increased clustering and decreased crosstalk between clusters.

Although this gloomy scenario is plausible, there is another way to anticipate the future of political process based on an understanding of social dynamics and the factors that promote both uniformity and minority survival. The goal is not to prevent clusters from forming—this is not psychologically viable in light of the dynamics of social life, and it would work against the survival of minority opinion
worth preserving. People will continue to self-select into communities that echo their preconceived biases, beliefs, and concerns, and some bases for self-selection can serve to perpetuate stereotypes, misinformation, and intolerance about those in different communities. The basis of clustering, however, may evolve in the years to come in a way that enables people of different political persuasions to tolerate one another, and perhaps to communicate and implement shared visions.

The cause for optimism is that politics is not the only source of cluster formation. People use modern communication technology—smart phones, social media, websites—to build social networks that go well beyond political ideology and that transcend the simple ingroup-outgroup dichotomies that dominated personal and social identity in the past (Christakis & Fowler, 2009). Today’s world provides an enormous range of opportunities for self-expression, enjoyment, career choice, and other sources of identity creation. Individuals seek out one another from different regions of the world with whom they share a common hobby, artistic preference, or economic agenda, or simply because they wish to interact in an online video game. These bases for social network formation not only displace shared identities rooted in tribalism, ethnicity, and ideology, they also tend to be crosscutting in ways that prevent complete separation between groups from developing (cf. Brewer & Brown, 1998; Roccas & Brewer, 2002;
Varshnay, 2002). The person in another country with whom one discusses music preferences may have different family customs, skin color, or political persuasion.

So which scenario will prevail? Will political gridlock and conflict due to the emergence of sealed-off clusters based on political ideology increase as we progress through the 21st century? Or will the potential for crosscutting bases of social network formation promote communication between groups of people who hold different political views? The dynamical perspective offers some guidance—but no guarantee. To begin with, we can expect relatively stable patterns of social relations to emerge, as they have in the past. Systems are governed by a press for progressive integration and the emergence of multistability, so societal structure will continue to reflect polarization and clustering.

But another feature of nonlinear systems is their potential for bifurcation—the same set of factors can result in the emergence of qualitatively different states (Kelso, 1994; Ruelle, 1989; Vallacher & Nowak, 2007). Whether the factors exacerbating political gridlock and conflict today continue to do so in the future may depend on how these factors play out individually or in interaction. One can envision increased separation between people and politicians of different persuasions. Especially in light of the gerrymandering that locks in political advantage for each party in setting congressional districts, the political basis of clustering may retain its salience for citizens and their elected representatives. But
one can just as easily envision the emergence of constructive political process, particularly if the crosstalk among citizens of different political persuasions gets reflected in the communication patterns of their elected representatives. If people from the left and right can talk to one another, perhaps politicians from the wings of both parties can do the same. Yet another possibility is that some pattern of temporal oscillation—periodic, quasi-periodic, or chaotic—between these scenarios will characterize 21\textsuperscript{st} century political process.

Which scenario (or pattern of scenarios) unfolds may not be entirely beyond prediction and control, however. To be sure, the self-organization responsible for clustering lends a high degree of unpredictability to the outcome. Even minor events can prove critical, shifting the balance between constructive and dysfunctional political process in one direction or the other. But emergence can also be shaped by external forces and information—especially if these sources of influence are provided when the system is a state of disassembly and thus “ripe” for emergence (Vallacher & Wegner, 2012). The challenge for the future is to provide the desired cues for meaning at the right time. In the hands of malevolent forces that play to people’s prejudices and fears, the future could perpetuate or enhance patterns of dysfunctional communication that promote political gridlock and conflict. In the hands of others with the long-term benefits of all in mind, the
constructive scenario could play out. The future of political discourse—and by implication, the quality of life as we move forward—hangs in the balance.
Figure 1. The increased separation of political parties from 1989 to 2013.

(Source: [http://imgur.com/a/Wmoex#0](http://imgur.com/a/Wmoex#0);
http://www.economist.com/blogs/graphicdetail/2013/12/daily-chart)

1989, 101st Congress
2013, 113th Congress
Figure 2a. Initial distribution of opinions in the simulated group

Figure 2b. Final equilibrium of opinions in the simulated group
Figure 3. Reversals in political preference due to changes in societal “bias”
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