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Networks, Interdependence, and Social Influence in Politics

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This chapter addresses social influence in politics as it is realized among individuals who are located within networks of social interaction and communication. A series of issues is addressed: the problematic role of social communication in the realization of influence; the potential for self-selected patterns of association; the social contingencies operating on influence within dyads; the consequences of disagreement frequency within larger networks for influence within dyads; the role of social cognition in affecting patterns of influence; the multiple faces of influence for changes in attitudes, attitude strength, ambivalence, and more; the role of cognitive complexity in inhibiting influence; and the role of biology and personality in affecting who is influential and who is susceptible to influence.

Keywords: social networks, influence, self-selection, communication, disagreement, expertise, personality

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One could craft an example of citizenship in which a person engages the political world while having few, if any, politically relevant encounters with other people. Our hypothetical citizen might follow politics solely by reading a local newspaper, watching political programs on television, and checking out political reports and commentary on the Internet. Together, these news sources may provide a solid base of information, one that enables the person to hold well-grounded opinions on various issues of the day. As to electoral politics, upon selecting favored candidates, the person might visit those candidates' websites, and even send in financial contributions to their campaigns. On Election Day, our isolated citizen would fill out the ballot while standing in the privacy of the voting booth, having had only the most cursory of interactions with election workers before receiving a ballot. The person we have described may well be a functional, competent citizen. However, what he or she never does is discuss politics with others. No complaints are voiced to friends about the state of the economy, the sluggishness of the bureaucracy, or the corruption of a scandal-plagued legislator. No jokes are shared with coworkers about a politician's embarrassing blunder at an international forum or a candidate's gaffe during a recent debate. Our hypothetical citizen experiences politics alone.

The citizen we have described here is not entirely far-fetched. Some people surely do strive to keep their political views entirely to themselves, and to avoid all conversations, and indeed all social interactions, that touch on politics. However, extreme political recluses such as the individual in our example are rather uncommon. Most citizens are of a different sort. Some might prefer not to discuss politics, yet be unable to escape the proselytizing of highly politicized relatives, neighbors, or coworkers. Others acknowledge and perhaps even welcome multiple social processes and encounters that carry political significance. Examples of the social aspects of politics abound. People attend town hall meetings. They go to rallies to hear candidates' speeches. They join associations, volunteer for campaigns, and go door-to-door to work on behalf of petition drives. Or, more mundanely, they have casual conversations with friends, relatives, and other acquaintances, conversations that sometimes include the exchange of information about politics and sometimes are marked by disagreement over the merits of a new policy proposal or the attributes of a public official or political candidate.

Research on social influence in politics considers the possibility that these various types of social interaction are politically consequential. By social influence in politics, we mean interpersonal encounters that affect at least one of the participants' subsequent patterns of political behavior, such as by prompting the formation of a new attitude, inducing change in an existing attitude, or motivating the person to take action, such as by voting in an election. For most people, citizenship includes a social component; the hypothetical political recluse we have described is an exception, not the norm. If most people experience at least occasional social interactions that involve politics, then scholars have the potential to improve our understanding of mass political behavior by exploring the nature and significance of those exchanges. In this chapter, we review research in this area. We do so with an eye toward demonstrating the value of scholarly attention to social influence in politics. In short, our contention is that full answers to pivotal questions about how and how well people execute the tasks of citizenship require acknowledgment of the social component of politics (see also Searing, Solt, Conover, & Crewe, 2007).

The few examples of politically relevant social interaction cited above are sufficient to support a few basic premises regarding the social components of political behavior. First, social interactions relevant for politics come in many forms, from the casual chat that touches on politics, to a spur-of-the-moment choice to attend a campaign rally, to membership and participation in a public

interest group. The possible social aspects of politics are broader still if we include matters such as seeing political yard signs and bumper stickers while driving through one's neighborhood, or reading about the opinions of others, such as in a news report regarding a recent public opinion poll, or by scanning letters to the editor in the local paper. Second, people vary in their levels of social exposure to political information. Our friends and acquaintances may talk about politics nearly every time we see them, or only from time to time. Our neighborhood may be a hotbed of campaign activity, or a place where campaign signs and political bumper stickers are quite scarce. Third, people have some control—but not full control—over social exposure to political information. We can choose our friends, but we may not always be able to steer conversations with them toward or away from politics. We can choose which neighborhood to live in, but not our actual neighbors, and not whether those neighbors knock on our door to ask us to sign petitions or to donate money to social or political causes.

Although research in political psychology about mass politics considers many phenomena, one of the chief concerns of research in this area is information. Scholars seek to understand what information about politics citizens encounter, how that information is processed, and how—and how well—information is used to update political attitudes and to guide political decisions and behaviors. Because some political information is transmitted socially, it follows that part of the effort by political psychologists to study citizen politics will explore relevant aspects of social communication. In political science, this research most often is labeled as being about social influence (for a discussion of political communications, including the news media, see Valentino and Nardis, chapter 18, this volume). Although social influence in politics may come in many forms, this chapter focuses primarily on the political significance of people's everyday encounters with their more or less regular associates—the relatives, friends, coworkers, neighbors, fellow parishioners, and casual acquaintances who make up their social networks. In pursuing this topic, we are ignoring large literatures regarding other forms of social influence—for example, literatures on reference groups and social identities (see Huddy, chapter 23, this volume). We justify this omission on two counts. First, a single review could not feasibly do justice to all the literatures relevant to social influence in politics. Second, we believe that network studies constitute an increasingly important area for scholarship on social influence.

Assume for the moment that a person has informed researchers that her social network includes four people, and that she speaks with each of them about politics on at least an occasional basis. If the analyst's ultimate goal in studying social networks is to further our understanding of the role of information in mass politics, it should be apparent that several aspects of our subject's social network will be of interest to us. At the very least we might want to know (1) whether, compared with other people's social networks, this one is large or small; (2) just how often politics comes up in conversation; (3) whether our subject and the members of her social network generally hold similar or dissimilar views about politics; (4) the nature and existence of relationships among the members of our subject's network; and (5) whether these networks of relationships have political consequences for our subject, such as increasing her basic knowledge about politics, influencing her thoughts about an issue or a candidate, or motivating her to vote in an election or volunteer on behalf of some cause. Digging even deeper, we might ask why it is that this person has a large or small network, discusses politics with a given level of frequency, does or does not encounter dissimilar points of view, and is or is not influenced by these political conversations.

This is a large number of questions. Fortunately, they can be reduced to two basic categories. The first concerns the effects of social networks. That is, does what goes on in people's social

networks matter for subsequent patterns in political behavior? If the answer is no, research on social influence in politics can stop at this point. There would be little or no reason for political psychologists to explore the intricacies of social networks if those networks do not matter for politics. If the answer is yes, then we must consider subsidiary questions pertaining to network content and composition. In other words, what are the important features of social networks? Possibilities include the size of the network, the frequency with which a person and her conversation partners discuss politics, how politically well informed the network's members are, and whether our subject and the others in her network generally tend to agree or disagree when they talk about politics. Second, some research considers those forces that exert effects on social networks. Why do social networks differ in their content, composition, and, ultimately, their effects on political behavior? One factor is individual preference. Some people are social and outgoing, whereas others interact mostly with a few close friends. Some people welcome new ideas and viewpoints, whereas others have made up their minds and are resistant to alternate perspectives. Life circumstances provide a second set of factors. For example, a waiter at the Capitol Diner likely will be drawn into or overhear more conversations about politics while at work than will a tollbooth attendant. And finally, social and political events also may influence social networks. Conversations about politics arise for a reason. Often, that reason is something in the news, such as a dire new report about the state of the economy, the onset of a military invasion, or the occurrence of a major political speech. What goes on in social networks is likely shaped by what goes on outside of those networks, and whatever influence networks exert may be a product of their capacity to help people to learn about and make sense of the broader political world.

The remainder of this chapter is organized into several sections. The first provides a brief history of early research on social influence in politics. The second discusses the methodological approaches and data sources used in research on social networks. The remaining sections then tackle the core substantive topics we have introduced. Most of these relate to the possible effects of social networks. We walk through the types of effects networks might produce, and what research has found regarding the conditions under which these effects are most likely to be observed. Following review of research on the effects of social networks, the chapter then steps back to consider factors that possibly shape or moderate either patterns in social communication or the effects of such discussions.

1. Historical Perspectives on Social Influence in Politics

Scientific research on politics became increasingly common in the 1940s and 1950s, and several of the discipline's most important and influential research traditions trace back to that era. For scholars interested in social communication about politics, the efforts of Columbia University's Paul Lazarsfeld and his colleagues established a vital foundation. The Columbia researchers used panel surveys to explore the interrelationship between news media and interpersonal discussion as influences on electoral decision-making and other forms of social judgment. Their efforts constitute the most important precursors to the subsequent research on social networks discussed later in this chapter. Their works also outlined an influential perspective on the nature of media effects in American politics and society.

Rather than gathering data using national surveys, the Columbia researchers focused on single locations. Moreover, to facilitate study of the flow of information and possible changes in people's attitudes and behaviors, panel surveys—surveys in which the same individuals are

interviewed at multiple points in time—were conducted. The surveys sought to measure the effects of both news media and social communication.

Three central works were published by Lazarsfeld and his colleagues. The first, The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign (Lazarsfeld, Berelson, & Gaudet, 1948), reported on research conducted in Erie County, Ohio, during the 1940 presidential campaign. In this study, news media were observed to exert relatively little impact on voters, especially when compared with the impact of social communication. Lazarsfeld and his colleagues further examined the impact of information on electoral behavior in 1948, reporting their results in Voting: A Study of Opinion Formation in a Presidential Campaign (Berelson, Lazarsfeld, & McPhee, 1954). In this project, data were gathered in Elmira, New York. Last, in Personal Influence: The Part Played by People in the Flow of Mass Communication (Katz and Lazarsfeld, 1955), the researchers considered not only information about politics, but also social information such as people's views of new movie releases. Of particular interest in this study was the possibility that information in the news was disseminated through the mass public as a result of interpersonal communication initiated by a relatively small number of opinion leaders via what was referred to as a two-step flow of communication.

Soon after the onset of the Columbia research program, scholars at the University of Michigan launched the American National Election Studies (ANES; e.g., Campbell, Converse, Miller, & Stokes, 1960). Although a tremendously valuable resource for the study of elections and voting, one legacy of the Michigan approach was a relative lack of attention to social communication. Consideration of possible social influence was pushed to the back burner largely as an artifact of methodological approach. ANES data are drawn from national surveys, making it difficult to study the effects of any given individual's social context and interpersonal network. If we have data from 1,500 survey respondents and we wish to study the interconnections among them, doing so logically will be dramatically more challenging if our 1,500 respondents are drawn randomly from across an entire nation than if they are drawn from a single city or county. Compared with the Columbia scholars' focus on individual localities, the ANES approach enjoys an overwhelming advantage in terms of breadth of scope. However, that advantage is gained partly at the expense of depth of insight regarding the intricate networks and contexts possibly operating on the individual. In any case, as a consequence of the growing prominence of the ANES data following publication of The American Voter in 1960, it was some time before scholars began reconsidering the questions regarding social influence highlighted by Lazarsfeld and his colleagues. Today, research on social influence in politics enjoys unprecedented breadth and vibrancy. Much of this work makes use of survey-based methodological approaches that build on those pioneered by the Columbia researchers, but other methods also are important in contemporary research on networks and politics.

2. Measures and Methods

Scientific inquiry on political discussion networks takes several forms. As was the case in the 1940s and 1950s in the research conducted by Lazarsfeld and his colleagues, the most commonly used approach involves gathering data via surveys. As an alternate to surveys, other research makes use of qualitative, or observational, methods. Laboratory experiments also have been conducted to study particular aspects of discussion networks. In this section, we first will review some of the key approaches and issues in survey-based research on discussion networks. Following this, the unique properties of observational and laboratory designs will be considered, and examples of both will be introduced.

There are two basic variants in survey questions about political discussion. One type of question asks about overall patterns in political discussion, without making reference to particular individuals. For example, respondents may be asked how many days in the past week they have discussed politics, or how often they have attempted to convince a friend or acquaintance which way to vote in an upcoming election. These questions can be useful because responses can be contrasted with similar measures pertaining to other behaviors. For instance, in addition to asking about the frequency of political discussion, a survey may include items using the same format to measure how many days in the past week the respondent has read a newspaper or watched the news on television. Similarly, the question about efforts at persuading others how to vote may be asked along with questions about the frequency of donating money to candidates, attending campaign rallies, and other forms of participation. Collectively, data from these items permit political discussion to be assessed within broader information and participatory contexts.

The second survey-based approach to gathering data about political discussion is to ask respondents to identify particular individuals with whom they discuss politics or other important matters. Using this method, the first step is for the survey interviewer to obtain a list of names from the respondent. Depending on the survey, the respondent may be asked to provide up to three, four or five names. Collectively, the discussion partners identified by a given respondent operationally constitute that person's network. Respondents vary in how many discussion partners, or discussants, they identify. Therefore, a simple count provides a measure of network size. Network size may offer an indication of how politically engaged the respondent is, and it also may matter for social influence. For instance, the impact of a particular discussion partner on the respondent intuitively might be expected to lessen as network size increases—as the individual discussion partner becomes one voice among many.

Given the right prompt, many people probably could name more than three or four individuals with whom they have conversations about politics or important matters. For these people, the three or four discussants identified on a survey represent a larger network. It follows that it may be important which discussants the respondent thinks to list. Outside of the realm of political discussion, it is well established that survey respondents often offer very different answers depending on how questions are phrased and framed. This implies that the prompt used on surveys to induce respondents to think about their discussion partners also might be consequential. The prompt, or introduction, read by the survey interviewer in an effort to elicit the names of respondents' discussants is referred to as a name generator. One type of name generator asks respondents to list individuals with whom they discuss "important matters." The "important matters" name generator gained popularity among sociologists, and it is the approach that has been used when the General Social Survey has included questions about discussion networks (e.g., Burt, 1984; Marsden, 1987; McPherson, Smith-Lovin, & Brashears, 2006).

When asked about "important matters," the respondent could have a great diversity of considerations in mind. In an effort to focus attention on conversations—and conversation partners—specific to the domain of politics, an alternate to the "important matters" name generator makes reference to government, elections, or political affairs. Huckfeldt and Sprague (1995) used this approach in their 1984 South Bend Study, asking respondents after the November 1984 US elections, "Can you give me the first names of the three people you talked with most about the events of the past election year?" Since that 1984 study, variants of the "political affairs" name generator have been employed on several other surveys.

The difference in name generators gives rise to questions regarding whether the two approaches yield consistent depictions of respondents' social networks. Much of the leverage on this question emerged through examination of data from the 1996 Indianapolis–St. Louis survey (Huckfeldt, Levine, Morgan, and Sprague 1998; Huckfeldt and Mendez, 2008; Klofstad et al., 2009). On that survey, respondents were randomly assigned to be read one of two name generators, one focused on "important matters" or one involving "government, elections and politics." Upon comparing networks identified using these differing approaches, Klofstad et al. (2009) found relatively minor differences and arrived at the justifiable conclusion that political networks are not constructed to create a politically safe haven of like-minded associates. That is, since political communication networks resemble "important matters" networks in most respects, it would appear that a great deal of political conversation occurs with the people who are readily at hand—the same people with whom the respondents discuss most matters of interest.

At the same time, there is a substantial body of evidence to suggest that political communication networks do not perfectly overlap with the networks measured using an "important matters" name generator. Most importantly, some people who play important roles in political communication networks are likely to be excluded by an "important matters" name generator. First, it would appear that the important matters networks run the risk of underrepresenting workplace associates (Mutz & Mondak, 2006). This is important because these associates are encountered through a shared environment (the workplace) that is nonvoluntary and instrumentally oriented, and hence they hold out the promise of being the "weak ties" who expose individuals to a wider variety of information and viewpoints (Granovetter, 1973; Huckfeldt et al.,1995). Second, other analyses of the Indianapolis–St. Louis survey demonstrate subtle but important effects due to the name generator. In spite of the fact that the identified networks are likely to overlap, the mean frequency of political communication is higher in politically defined networks, and respondents report a somewhat higher mean frequency of political disagreement (Huckfeldt & Mendez, 2008). Once again, the important matters name generator would appear to exclude some potentially important discussants. Finally, Huckfeldt, Levine, et al. (1998) show differences in the cognitive processes underlying the two alternative means of identifying network associates, with important implications for network identification.

The analyses of Klofstad et al. (2009) and Huckfeldt and Mendez (2008) reach the important conclusion that, because "important matters" and "politics" name generators produce similar depictions of networks, most people discuss politics with many of the same individuals, with whom they have other sorts of conversations. Rather than forming topic-specific networks, most people appear to converse with many of the same discussants regardless of whether the topic is a generic "important matter," something pertaining to "government, elections and politics," or perhaps even more mundane issues such as a new movie or restaurant. At the same time, it would be a mistake to conclude that there are no important differences between important matters networks or political networks or other specialty topic networks (see Katz & Lazarsfeld, 1955). Hence, and most crucially, the important matters network name generator runs the risk of excluding political discussants who play particularly important roles in the political communication process.

Once a name generator has been used to identify a survey respondent's discussion partners, several follow-up questions are asked about those discussants. The specific questions differ across surveys. However, it is common for these batteries of network items to ask about matters such as how it is that the respondent and the discussant know one another, how frequently they

talk, how often politics comes up as a topic of conversation, the discussant's levels of interest in and knowledge about politics, how often the respondent and discussant agree or disagree with one another, and what the respondent perceives the discussant's political views to be—what party the discussant supports, which candidate the discussant voted for in a recent election, and so on. Data from these various follow-up items enable researchers to explore which types of relationships and which attributes of discussants are most strongly associated with particular effects.

A limitation of asking respondents about their discussion networks is that the resulting data tell only one side of the story. The analyst sees a given discussion dyad—the relationship between two conversation partners—from the point of view of the survey respondent, but not from the point of view of the identified discussant. It could be, for instance, that the respondent has misidentified the discussant's party affiliation, or that the respondent and discussant disagree about how often they disagree. Some network studies have addressed this concern by surveying respondents about their discussion partners and then contacting some of those discussants and also surveying them (e.g., Huckfeldt & Sprague, 1995). The second sample, the one composed of the discussants named by the original respondents, is referred to as a snowball sample. This is because this second group of respondents is not identified via conventional random sampling techniques; instead, these respondents are identified as a byproduct of the initial survey. By merging data from the initial respondents with those obtained from their discussion partners, numerous important questions can be considered. Chief among these is the accuracy of social perception: if the respondent perceived that the discussant voted for the winning candidate in the most recent national election, how likely is it that this perception is accurate? Reciprocity also can be examined. For instance, the respondent named the discussant as one of his or her top three (or four or five) discussion partners, but did the discussant, in turn, name the respondent, or did the discussant identify different individuals?

These questions are central in research on the effects of social communication, and we will return to them below. Survey-based research has been the dominant approach in the study of political discussion networks, and most of the works described in later sections of this chapter examine survey data. First, though, a brief mention of two additional approaches in the study of social networks, observational studies and laboratory experiments, is warranted.

Using survey data, researchers can identify properties of individuals' networks and can devise statistical tests designed to attempt to measure whether social communication matters for subsequent patterns in political behavior. However, one area in which survey applications do not fare well is in providing insight regarding the actual content of people's political conversations. How does politics come up as a topic of conversation? What subjects are discussed? Do these exchanges bring some sort of give and take, do they spark disagreement, or do they lead to feelings of awkwardness and discomfort among participants? With survey data alone, these are difficult questions to answer. As an alternative, researchers sometimes attempt to observe the occurrence of actual conversations about politics. Field research of this type can offer a useful complement to other methodological approaches.

In the past decade, Walsh (2004; 2007) has observed political conversations as part of two major projects. In the first, the investigation focused primarily on a diner at which a large group of men, mostly senior citizens, met each morning. Part of the challenge in this research was for Walsh to meet, be accepted by, and ultimately join the discussion group in question. Once this hurdle had been crossed, actual conversation, including conversation about politics, could be observed. Among other noteworthy findings, Walsh saw that discussion moved fluidly from one topic to

another, with political matters coming and going mostly as unplanned elements of the conversation. This observation supports the conclusion that political discussion often is simply a subset of discussion in general rather than being a deliberate focal point for conversations with select discussion partners. Walsh also found that news coverage often provided a starting point for political discussion, but that participants frequently supplied their own frames to help make sense of what was in the news rather than relying exclusively on how news media had depicted a story. Consistent with this, Walsh observed that identity was an important component of political discussion. Most members of the group had known one another for decades, and many saw one another nearly every day. Consequently, the conversation partners shared a strong sense of group identity. In Walsh's view, a participant's identity with the group led the person to understand political issues via a shared perspective with other group members.

Walsh's second observational study (2007) considered political exchanges in a more formalized setting, community-sponsored forums on race. Although these forums differ in structure from casual conversations about politics, suggestive insights still emerged regarding the nature of political discussion. For instance, Walsh noted that personal anecdotal experiences were highly influential on forum participants' views. That is, if a participant conveyed the story of a relevant personal experience, that anecdote would strongly influence the opinions and interpretations of other members of the discussion forum. This observation brings insight regarding both the occurrence of social influence and a key aspect of social communication—the reporting of a relevant personal experience—that gives rise to such influence.

Laboratory experiments provide a second alternative to survey research as a means to study social networks. As with laboratory research on other topics, a chief benefit of laboratory methods for network studies is that experiments permit careful attention to matters of process. In particular, the analyst's capacity to derive causal inferences is expanded. With survey data on discussion networks, analyses are inherently correlational. The research can demonstrate, for instance, that a person's exposure to conservative viewpoints via political discussion corresponds with an increased likelihood that the person will vote for a conservative candidate, but the evidence will not be definitive that the network exerted a causal influence. Greater certainty about cause and effect can emerge using experimental designs.

Several types of experiments have been employed in research on social networks. We will offer a few illustrative examples. Parker, Parker, and McCann (2008) embedded experimental treatments in a panel survey of undergraduates to determine if social communication produced lasting effects on individuals' judgments regarding public hazards. Students were recruited to discuss with their friends hazards such as mercury levels in canned tuna, and the friends were later surveyed as a means to gauge the impact of social communication on the message recipients' policy views. Ahn, Huckfeldt, and Ryan (2010) conducted small-group experiments using a computerized platform as a means to study the relative value people assign to the effects of expertise and shared values on social cue-taking. Participants were charged with the task of obtaining information about candidates from one another in an interactive setting. Mondak (1995a; 1995b) introduced a quasi experiment, or natural experiment, by capitalizing on the fact that a strike had shut down the city of Pittsburgh's newspapers during the 1992 US elections. Data from Pittsburgh were contrasted with data from Cleveland, a demographically similar city in which newspapers remained available. Absent newspapers in Pittsburgh, political discussion of local elections decreased, but the influence of socially communicated political views on the vote choice increased.

The studies mentioned here provide a sense of the diversity of topics and experimental methods researchers have introduced in the study of social networks. In each of these studies, aspects of the information context were varied, whether by the researcher or by unique circumstances. As a result, the researchers were on relatively firm ground when seeking to identify causal effects on participants' attitudes and behaviors.

Surveys, observational approaches, and experiments all are means to an end. Regardless of method, the goal in this stream of research involves improving our understanding of social networks and their possible effects on political behavior. We should also note that research on social influence in politics is not limited to these approaches. For instance, some studies have used mathematical models and computer simulations to examine phenomena such as the social diffusion of information (Albert & Barabasi, 2002; Axelrod, 1997). Others have mapped out patterns of linkages among individuals in varied contexts, such as among members of the US House of Representatives (Tam Cho & Fowler, 2010; Fowler, 2006) and users of Facebook (Gaines & Mondak, 2009). Regardless of how social networks are studied, the forms that network effects might take require careful consideration. We turn next to an overview of the two basic manners in which political discussion might alter a person's patterns of political engagement, by providing a person with new information and by influencing the person's judgments and behaviors. Following this overview, we delve deeper into the conditions under which social communication should be expected to be the most consequential.

3. Possible Effects of Social Communication about Politics: Information and Influence

When a person engages a conversation partner in political discussion, what outcome might we expect? One possibility, of course, is that the discussion will produce no discernible impact. People chat with one another all of the time about a plethora of subjects, and it seems unlikely that each such exchange would bring notable lasting effects for the participants. In the political domain, it is entirely possible—indeed, perhaps likely—that when two people talk about a candidate, policy, or public official, their casual endeavor to pass the time will fail to alter either person's future attitudes and behaviors. Keeping this potential for an absence of effects in mind, we must consider what sorts of tangible results political discussion might produce, and in what circumstances. When studying social networks, effects will not be observed in the absence of communication, but the sheer existence of communication does not ensure that effects will be seen (McClurg, 2003). In other words, communication is a necessary, but not a sufficient, condition for exchanges within networks to give rise to discernible effects on political attitudes and behavior.

As with exposure to any form of communication, exposure to social communication can produce two broad classes of effects: the first focused on influence and the second focused on information. As will become clear, information and influence often are closely interrelated. The first type of effect associated with social networks is influence. With respect to political discussion, influence occurs when a conversation leads one of the participants to form an opinion, to change an opinion, or to engage in some behavior. One example of this type of influence might be an update in a person's evaluation of the president. Another example is if the discussion leads one of the individuals to finalize his or her vote choice in an upcoming election. Or, with respect to political participation, the conversation might convince a person to vote (or not to vote) in that election. The empirical record abounds with important works that have generated evidence pointing toward these forms of social influence (e.g., Pattie & Johnston, 2001). In addition to the actual

identification of social influence, other research in this area focuses largely on exploration of the conditions that foster influence. Scholars examine what it is about a person, the person's discussion partner, and their dyadic relationship that makes influence more or less likely to occur.

Among the several issues to be examined below, two require preview. First, demonstration that influence has occurred, particularly within the parameters of survey-based research on social networks, is not an easy task. In many instances, self-selection stands as a plausible alternate to influence. For instance, suppose that a person identifies with the Blue Party, but has three political discussion partners who identify with the Yellow Party, and the person in question also ends up voting for the Yellow Party in the next national election. The person's decision to vote Yellow may be the product of social influence. After hearing for weeks or months from friends and acquaintances about the merits of the Yellow Party, the person may, at last, have been influenced to vote against the Blue ticket. However, an alternate possibility is that, prior to any conversations, the person already was leaning toward the Yellow Party in this year's election. Indeed, this emerging preference may be why the person was willing to take on supporters of the Yellow Party as political discussion partners. Thus, it may be that no actual social influence took place. As we will see, differentiating influence from self-selection can be a vexing task.

Second, how a person's initial views relate to those of a discussion partner affect the possibilities for influence to occur. If two people agree on everything, if they are always on the some page as one another, then influence will not be observed. Minds cannot change when the speakers are always in perfect harmony. Instead, it is only where initial points of view differ—where the conversation is marked by at least some level of implicit or explicit disagreement—that influence can take place. Although the presence of disagreement is a logical precondition for influence, it is one that brings its own complications. Intuitively, we should expect that many individuals will prefer to avoid disagreement. If this is the case, then opportunities for social influence are closed off from the start. Further, even if people are exposed to different points of view, they may be resistant to those perspectives. Rather than yielding to their conversation partners' points of view, people may instead dig in their heels and cling to their own opinions. The particular significance of disagreement will receive expanded attention below.

In addition to influence, social communication may produce political effects by fostering the dissemination of information. Political discussion results in an information effect when a participant learns something new or otherwise acquires expanded political competence. Facts are transmitted. Expertise is gained. The individual comes away from the conversation at least somewhat more capable of understanding one or more aspects of the political world, and perhaps somewhat more capable of forming evaluative judgments about political phenomena. The occurrence of such information effects presupposes (1) that one of the discussion partners entered into the conversation knowing something that the other person did not, (2) that the individual attempted to share this information, and (3) that the information was received by the second individual. Thus, similar to much of the research on the effects of news media, research on the capacity of social communication to foster an increase in participants' information levels examines the circumstances under which these three conditions are or are not met. In other words, this research investigates the possible social transmission of political expertise.

4. Influence versus Self-Selection

The occurrence of a conversation about politics between any two individuals can be viewed as the culmination of a complex process, a process that brought the two people together, and that did so

in a manner in which one or both ultimately felt comfortable raising politics as a topic of discussion. Some of the forces that brought the two conversation partners together were within their direct control, others were ones for which the individuals perhaps had an indirect say, and still others may have operated independently from the discussants' personal choices and preferences. Acknowledging the presence of these various interrelated forces is essential if scholars are to succeed in distinguishing between possible social influence and self-selection. Failure to take the issue of self-selection seriously leads to the temptation to overstate the prevalence and magnitude of social influence.

If life unfolded like a laboratory experiment, social influence would be easy to demonstrate. Encounters with political discussion partners would be completely exogenous to personal preferences, political or otherwise, much as exposure to an experimental manipulation occurs entirely outside of the control, and even awareness, of the study's participants. In this context, we merely would need to observe whether an encounter with a discussion partner led the individual to form a new attitude or change an old one. If such an effect were to be observed, we would conclude that social influence occurred.

Juxtaposed against the laboratory experiment, consider the case of two coworkers chatting about politics during a coffee break. The fact that these individuals work together at all may be the consequence of macro processes of sorting and mixing, processes that, as Schelling (1978) noted, can create homogeneity absent individual intention and communication (see also Achen & Shively, 1995). After all, something led the two coworkers to be employed at the same company at the same time. Perhaps, for example, they are young engineers working in a midsized electronics development company. Market forces outside of their control created incentives that encouraged them to acquire training in engineering and then to seek employment in this particular company. Once cast together as coworkers, the two may have found one another as discussion partners because they were rationally motivated to search for trustworthy informants who shared their interests and preferences (Downs, 1957), or because they carefully constructed amenable friendship circles within an otherwise diverse workplace context (Finifter, 1974). Last, when their conversation turns to politics, one or both of the coworkers may engage in self-censoring to avoid the unpleasantness of political disagreement with an associate (MacKuen, 1990) or even because aspects of the broader political context creative disincentives for political discourse (Conover, Searing, & Crewe, 2002; Mondak & Gearing, 1998).

In this example, the coworkers certainly did not choose careers in engineering so as to alter their future exposure to political discussion, yet their choices had this effect, nonetheless. Upon finding themselves together at work, each of the two enjoyed at least some capacity to seek out or to avoid conversation with the other, and, once conservation ensued, to seek out or to avoid politics as a topic of discussion. By the time one of the workers complained to the other about the president's poor handling of a recent issue, it is far from certain that room for social influence remained. Instead, it may be the case that the second worker selected into this conversation due to his or her own concern with the president's performance, and a corresponding desire to hear a coworker support this critical perspective. The endogeneity of this real-world example contrasts starkly with the exogeneity of the laboratory experiment. The critical lesson is that identification of a causal relationship—in this case, the occurrence of social influence—is an extraordinarily challenging task.

Apart from caution in the interpretation of statistical results, what can be done to address self-selection and the corresponding problem of endogeneity? A first step, albeit not a definitive one,

is to ensure that statistical models fully account for a person's own circumstances, values, and political predispositions before seeking to determine whether the person's attitudes were influenced by those of a discussion partner. In the example of the two coworkers, the dependent variable might be the first coworker's assessment of the president's handling of the economy. In a statistical model, individual-level predictors might include the person's education level, job status, personal economic situation, partisan affiliation, and support or opposition to the president in the last election. The last variable to add to the model is a measure of the coworker's views, whether it be this person's partisanship or opinion about the president's handling of the economy. If this variable yields a significant effect on the dependent variable over and above any influences of the individual-level controls, we would have reasonable grounds for confidence that social influence has occurred—that is, the second coworker's views truly have influenced the first's. Unfortunately, this analytical structure brings no means for self-selection to be ruled out conclusively, because it remains possible that selection, and thus endogeneity, took place via some other factor that has been omitted from the model. In short, this design may enable the researcher to rule out the obvious threats to the inference that social influence has transpired, but it does not enable the researcher to rule out all such threats.

A related concern with this approach is that any correlation between the preferences of the respondent and the discussant would be assumed to represent the impact of the latter on the former even though reciprocal or reverse influence is possible. That is, perhaps the respondent influenced the discussant rather than vice versa, or each influenced the other. Scholars have addressed this concern by representing the discussant's political views with an instrumental variable, one that is presumably immune to reciprocal effects (e.g., Huckfeldt & Sprague, 1991; 1995). For example, the discussant's partisan affiliation can be represented with data about the discussant's parents' partisan preferences. Those parental partisan affiliations cannot have been affected by a conversation between the survey respondent and the respondent's discussion partner, yet those affiliations will predict, at least coarsely, the discussant's current views. Thus, an instrument reliant on parental partisanship will capture some of the partisan flavor of the subsequent political conversation without falling victim to the tangle of possible reciprocal influence.

A second step toward assessing the problems of self-selection and endogeneity is to demonstrate that the composition of political discussion networks is at least partly beyond the control of any individual participant. Several forms of evidence support this conclusion. For one, to a substantial extent, the composition of interpersonal political discussion networks is a function of the composition of the larger environment. For instance, people who reside among conservatives are more likely to converse with conservatives, quite apart from their own political predispositions (Huckfeldt & Sprague, 1988). The implication is that people generally do not exert ardent control over their discussion networks, but instead merely take political discussion as it comes. Consistent with this view, a second point is that political discussion often is unplanned. When talking, people jump from topic to topic, as different statements cue new thoughts and recollections (Walsh, 2004). The stochastic nature of conversation itself inherently constrains an individual's capacity for selective avoidance of politics or any other topic. Last, researchers have capitalized on the two types of name generators addressed above, the "important matters" and "politics" generators, to show that political discussion networks are no more homogeneous or free from disagreement than more generalized networks (Huckfeldt & Mendez, 2008; Klofstad et al., 2009). Thus, if social influence occurs outside of the realm of political discussion, then it quite likely also occurs when conversations turn toward political matters.

A third approach to demonstrating social influence despite the possible effects of self-selection entails differentiating among the contexts in which communication networks are formed. For instance, research on political discussion within the workplace, an important source of communication networks, establishes that conversation often occurs among coworkers and other casual acquaintances who are cast together for economic rather than social reasons (Mondak & Mutz, 2001; Mutz & Mondak, 2006). When asked about patterns of political discussion at work, many respondents indicate that it was their discussion partners, not themselves, who typically brought up politics as a topic of conversation, and that, given a choice, many respondents would have preferred not to discuss politics. In these instances, political discussion is the product of involuntary association, not purposive self-selection. Partly as a result of these patterns of interaction, individuals are more likely to be exposed to heterogeneous preferences at work than in many other contexts. When apparent social influence is identified within workplace-based discussion networks, the unique properties of these networks bring analytical leverage useful for distinguishing actual influence from self-selection.

More recently, a new wave of experiments (Visser & Mirabile, 2004), field experiments (Levitan & Visser, 2009), and longitudinal research (Lazer, Brian, Carol, Katz, & Neblo, 2010) has addressed the endogeneity problem head-on, with focus on the formation of political communication networks among new students enrolled as freshmen at the University of Chicago and as first-year graduate students at Harvard University's Kennedy School of Government. In these studies, the researchers either could construct social networks in the laboratory or could monitor students' patterns of behavior as they arrived on campus and experienced the formation of new networks. Although there is evidence of sorting and homophily in these studies, the sorting is not based on politics or political preferences, even for the Lazer et al. (2010) study of graduate students in public affairs. Further, although politics was not central to the formation of students' networks, all three studies document important patterns of social influence among the students. The point is not that people fail to pursue personal preferences in selecting associates. Rather, this work suggests that maintaining political agreement is a relatively unimportant criterion for network formation. As a consequence, individuals end up being located in politically diverse networks, networks that carry a large potential for political influence.

A related literature addresses the endogeneity of social interaction effects within the context of partisan canvassing and contacting strategies that take place as part of voter mobilization efforts. In an innovative series of field experiments, Green and Gerber (1999; 2000) study mobilization efforts initiated by canvassers who are typically unknown to the people who are contacted. These studies demonstrate significant and consistent effects on the likelihood that, upon being contacted by a canvasser, a person will turn out and vote. Moreover, Nickerson (2008) identifies second-order consequences that arise due to these contacts. Specifically, not only does the contact affect the likelihood of turnout by the person who is contacted, but also the likelihood that others in the household will vote as well. Social influence can be inferred in this case. In Nickerson's field experiment, canvassers knocked on doors and either encouraged a resident to vote or delivered a message regarding the value of recycling. If a woman was assigned to the voter turnout treatment and an effect was later observed on the likelihood that her husband voted, communication between the wife and the husband about the party canvasser's message—that is, social influence—almost certainly drives the effect.

None of the studies discussed here claims that self-selection and the associated issue of endogeneity are unproblematic for research on social influence. Indeed, establishing causal

relationships in research on social influence remains both a serious concern and a vibrant topic of scholarly exchange (e.g., Cohen-Cole & Fletcher, 2008; Fowler, Heaney, Nickerson, Padgett, & Sinclair, 2011). People choose neighborhoods in which to reside, churches to attend, and career paths to follow. People choose friends and acquaintances. People choose to enter into conversations with others, and they choose to steer those conversations toward or away from politics. The accumulated research does not deny self-selection, but it does establish that self-selection is insufficient to preclude social influence, including in the political domain. First, politics is not the only criterion that is invoked when people select their associates, and it does not appear to be a particularly important one. Second, discussion networks are, by and large, representative of the communities (e.g., neighborhoods, workplaces) from which they are drawn. Third, although many people might prefer to avoid hearing wrongheaded opinions from their colleagues and acquaintances, avoidance is not always a practical or even a viable option.

5. The Importance of Disagreement

When two people discuss politics, the potential for social influence hinges in part on the mix of their initial positions and on their receptivity to alternate points of view. If two discussion partners absolutely always agree with one another, their conversations never will result in opinion change. Information may be exchanged, as would be the case if one of the individuals learned something new and shared it with the other. But one discussion partner's opinions would never move toward the other's if they always began in the same place. Thus, at least some level of disagreement must exist if social influence is to be observed. However, it is logically the case that too much disagreement is also problematic. If two discussion partners absolutely always disagree with one another, then, once again, their conversations will never result in opinion change. At least in terms of an impact on opinion, social influence presupposes that discussion partners disagree at least some of the time, but also that at least one of the individuals is occasionally receptive to the other's perspectives.

Recognizing the important role disagreement plays in establishing the potential for social influence, scholars have devoted particular attention to studying the bases and consequences of disagreement in political discussion. More specifically, research has examined how much disagreement actually exists in social networks, the factors that lead disagreement to be sustained rather than snuffed out, the possible positive effects of exposure to diverse perspectives through social communication, and the potential for disagreement to result in unexpected adverse consequences. Each of these lines of inquiry warrants consideration.

Previously, we noted that in survey-based research on social networks, a respondent's interpersonal discussion network is operationally defined as being composed of the individuals the respondent names when asked to list conversation partners. Some respondents name zero discussion partners, others name one or two, and still others provide the maximum number of names requested (typically either three, four, or five). Disagreement between the respondent and his or her discussants can be represented in numerous manners. One criterion might be the vote choice in the most recent national election. A respondent and discussant would be coded as being in agreement if they voted for the same candidate. Similarly, partisan affiliation could be used as the basis for determining whether a respondent and discussion partner are in agreement. In the United States, for example, disagreement would be recorded if a Republican respondent has a Democratic discussion partner. Yet another means to measure levels of disagreement is to ask the respondents to gauge it. For example, a survey might ask, "When you talk with (name) about

politics, how often do you disagree: always, sometimes, rarely or never?" Last, a researcher might measure disagreement by using data from each of these approaches to form a summative index.

Disagreement can be represented at the level of the discussion dyad or at the level of a survey respondent's full discussion network. In the latter case, the key distinction in the literature is whether the person's network is wholly homogeneous or whether at least some disagreement is present. For instance, suppose that the Republican respondent from the example above names four discussion partners, including three fellow Republicans and one Democrat. In this case, we would characterize the respondent's network as including a diversity of partisan viewpoints because the network is not fully homogeneous.

Viewed at the dyadic level, most political discussion dyads, or pairs of discussion partners, are characterized by agreement, not disagreement. As our analysis of self-selection highlighted, there are two key reasons for this. First, macro-level sorting processes work to bring similar people together and to keep dissimilar people apart. We resemble our neighbors in terms of socioeconomic status, our coworkers in terms of education level and professional interests, and our fellow parishioners in terms of faith. Each of these dimensions correlates at least modestly with political predispositions. A liberal surrounded only by other liberals faces only two choices in terms of political discussion: talk with a fellow liberal, or do not talk at all. Second, although, as we have seen, it has its limits, some self-selection takes place. Disagreement is, well, disagreeable. Consequently, many people prefer to avoid it and are willing to expend at least some effort to do so.

Although the odds of encountering disagreement in any given discussion dyad are relatively low, diversity within three- or four-person interpersonal networks is considerably more common. Indeed, in an analysis of data from the 2000 US presidential election between George Bush and Al Gore, Huckfeldt, Johnson, and Sprague (2004) note that the modal condition in interpersonal discussion networks was exposure to disagreement. In other words, all Bush voters did not converse exclusively with fellow Bush voters, and all Gore voters did not converse exclusively with other Gore voters. It is not uncommon, for instance, to observe a Gore voter with a four-person discussion network composed of three fellow Gore voters and one Bush supporter. Precise interpretation of the data depends partly on how nonvoters, undecided voters, and supporters of other candidates (e.g., third-party candidates Pat Buchanan and Ralph Nader) are categorized. On this point, Mutz (2006) indicates that fewer networks would be labeled as including diverse points of view if the definition were limited to include only (a) Bush voters with at least one discussant who voted for Gore, and (b) Gore voters with at least one discussant who voted for Bush. Regardless of how one classifies respondents and discussants who are other than Bush or Gore voters, two clear points remain. First, political conversations, whether at the dyadic or network level, are more likely to be characterized by similarity in viewpoints than by dissimilarity. But second, for a large portion of citizens, at least some exposure to cross-cutting perspectives takes place.

The continued presence of some diversity of viewpoints in many individuals' discussion networks can, itself, be assessed from two perspectives. One question we already have considered is why levels of diversity are not greater than they are. The combination of structural forces and self-selection helps foster homogeneity in interpersonal discussion networks. But this question also can be turned on its head: why is it that disagreement is observed at all? In light of the factors that act to discourage the occurrence of conversations between individuals with differing political

views, why is it that political disagreement survives rather than being pushed to the point of extinction?

The puzzle posed by the persistence of disagreement arguably is more challenging than the question of why levels of disagreement are not even greater than they are. First, as we have emphasized, key factors work to discourage the airing of diverse political points of view. But second, given the potential for social influence, the persistence of disagreement may seem curious. Suppose, for example, that a person who considers herself to be a Blue Party supporter finds herself, despite the factors that discourage exposure to disagreement, having a series of conversations about politics with an affiliate of the Yellow Party. If social influence occurs, what would we observe over time? Logically, disagreement between our subject and her discussion partner should not persist for long. One option, of course, is that the each will throw up her hands in despair over the other's obstinacy, and they will stop having these disagreeable conversations, or even break off their relationship. Alternately, social influence could take place. In this scenario, the strength of our Blue Party supporter's positions could eventually wear down her Yellow Party acquaintance, and eventually convert the latter to the Blue side (or at least to becoming an independent). And the opposite process obviously is possible as well, with the Yellow Party gaining a new supporter when our erstwhile Blue Party subject is persuaded to switch sides.

The potential for social influence to extinguish political disagreement seems all the more plausible when we step back and consider such influence from the perspective of broader psychological research. Relevant and important work has been conducted on an interrelated array of topics, including conformity effects (Asch, 1955), cognitive dissonance (Festinger, 1957), attitudinal consistency (Heider, 1958), the rational use of socially supplied information to reduce information costs (Downs, 1957), and, more recently, motivated reasoning (Lodge & Taber, 2000; Taber & Lodge, 2006; see also Taber & Young, chapter 17, this volume). All of these research traditions and their associated empirical works point to the conclusion that people generally seek to resolve—not maintain—dissonance. Collectively, these research traditions would seem to suggest that if individuals do not avoid disagreeable messages, they ought to be convinced by them. That is, if social communication is influential, and if avoidance fails, one would expect that communication to be persuasive. Over time, either our Blue Party supporter or her Yellow Party acquaintance should exhibit changing preferences. But, as we have seen, research on political discussion networks establishes that some diversity of views is present in a substantial portion of them. If social communication is persuasive, how can we account for the persistence of political diversity within interpersonal networks (Abelson, 1964; 1979)?

Disagreement can be found in some individuals' networks, but not in others. Network density has emerged as a key determinant of whether disagreement persists. Network density refers to the relationships among all of the members of a network. A high level of density exists if all of the members are tightly connected to one another. Suppose, for example, that Alice and Emma were each asked to name three political discussion partners. Alice names Bonnie, Carol, and Denise. The four all attended high school together, and they have been close friends ever since. Alice's network would have the maximum value on a measure of density, because all four of the individuals in the network know one another well. In contrast, Emma names as discussion partners her sister Faye, her college roommate Grace, and her coworker Hanna. Faye, Grace, and Hanna either do not know one another at all, or they have met in passing solely due to their mutual acquaintance with Emma. In this case, network density would be categorized as low.

Network density matters because disagreement is more likely to occur between individuals who do not share a common circle of friends. Put differently, a person is more likely to be exposed to disagreement if her network has a low level of density. In the case of the present examples, it is far more likely that we would observe political disagreement in Emma's discussion network than in Alice's. With Alice, we would expect disagreement, if it was ever present at all, to have been resolved long ago. If Alice were the only Blue Party supporter among her circle of friends, she either would have dropped Bonnie, Carol, and Denise in favor of a more congenial set of associates, or she would have been persuaded to switch to the Yellow Party. With Emma, it may be that Emma herself and Faye and Grace all support the Blue Party, but disagreement persists within Emma's network because Hanna sides with the Yellow Party. And, for her part, Hanna's only Blue Party discussion partner may be Emma. That is, Hanna is the source of political diversity in Emma's network, and Emma is the source of diversity in Hanna's. Apart from one another, their respective networks are homogeneous.

These examples suggest that disagreement can be sustained by the nonoverlapping structure of an individual's network, a key lesson emphasized in Huckfeldt, Johnson, and Sprague (2004). For Alice, there is not a nonoverlapping component to the network because Alice and her three discussants all are tightly linked to one another. As a result, disagreement has no grounds on which to flourish. In contrast, Emma's discussion partners do not all know one another, and conversations with Hanna expose Emma to different points of view. Emma is willing to engage in these discussions, and perhaps even welcomes them, partly because the rest of her network—that is, Faye and Grace—is congenial to her perspectives, and thus Emma is not being bombarded with exclusively contrary viewpoints. Critically, the very same aspect of Emma's network that facilitates her exposure to disagreement also acts to constrain opportunities for social influence. That is, consonant discussion with Faye and Grace acts both to increase Emma's willingness to hear a different point of view from Hanna and to make it difficult for Hanna to influence Emma's political opinions. After all, influence could occur only if Hanna's discourse was so compelling as to counter the inertia of Emma's existing views and their reinforcement via discussion with Faye and Grace. In more technical terms, what this implies is that complex networks of association foster agreement, but also sustain disagreement. Therefore, dyadic influence cannot be understood apart from attention to other aspects of the discussion partner's networks and contexts. Ultimately, the residual components of a network (Faye and Grace, in our example) mean that social influence can be self-limiting, but also that disagreement can be sustained.

Our point is that situating dyads within broader networks and contexts is vital to understanding both the persistence of disagreement and the potential for social influence. Individuals are embedded in networks and contexts of social and political communication. In our examples, each hypothetical person we have mentioned is embedded within a network, and each also is embedded in multiple contexts—the neighborhood, church, workplace, and so on. If individuals are embedded in networks and contexts, then so, too, are dyads. Whether communication within a dyad is politically influential depends on the wider distribution of opinions and beliefs (Huckfeldt, Beck, et al., 1998; McClurg, 2006a; 2006b; Jang, 2009). More specifically, the influence of any message depends on messages previously received from others in the network (Huckfeldt, Johnson, & Sprague, 2002; McClurg, 2004; Nickerson, 2008). When it comes to political opinions and beliefs, individuals rarely adopt views that receive minority support within their communication networks (Huckfeldt, Johnson and Sprague, 2004). Thus, as in our example involving Emma and her three discussion partners, circumstances external to Emma and Hanna's dyadic relationship—namely, the fact that Emma is in agreement with her other two discussion

partners—facilitate the persistence of disagreement (Emma retains Hanna as a discussion partner), but also limit the potential for social influence.

Thus far, we have examined the importance of disagreement as a precondition for the occurrence of social influence, and we have addressed the puzzle about why disagreement persists in some networks rather than being extinguished. The final matters regarding disagreement to be considered involve its effects. Social influence is, of course, one possible effect of exposure to diverse political viewpoints. That is, upon hearing the case for an opposing perspective, a person could change her mind and adopt her discussion partner's position (thereby eliminating their disagreement). Apart from such a stark attitudinal transformation, several other possible effects of exposure to disagreement have been the targets of empirical study. Some of these are generally considered to be positive in the sense of improving the quality of citizenship, but other consequences of disagreement may be less desirable.

In terms of citizenship, the chief advantage of cross-cutting political conversations—exchanges in which multiple perspectives are voiced, and participants thus are exposed to diverse points of view—may be their capacity to promote civility and understanding. Three related effects have been considered in empirical research. First, engaging in a conversation marked by political disagreement may help the discussion partners to understand the rationales underlying opposing viewpoints. Thus, rather than dismissing the other side as misguided, uninformed, or even unpatriotic, the person who is exposed to disagreement through social communication may learn that there are legitimate, reasoned bases for holding opposing views. Consistent with this hypothesis, Mutz (2002a; 2006) demonstrates that survey respondents' levels of awareness of the rationales underlying opposing political views increase as a function of exposure to disagreement in political discussion, and that political conversations in the workplace are especially well suited to fostering such awareness (Mutz & Mondak, 2006).

A second, and similar, possible effect of exposure to political disagreement is an increase in tolerance. Political tolerance exists when a person is willing to extend the full rights of citizenship to all others, including to members of controversial or disliked groups (Sullivan, Piereson, & Marcus, 1982; Mondak & Sanders, 2003). Participation in cross-cutting political conversations has been hypothesized to heighten the extent to which individuals value the free exchange of ideas, including unpopular ones, thereby increasing levels of tolerance. Evidence consistent with this hypothesis has been reported in several studies (e.g., Mutz, 2002a; 2006; Mutz & Mondak, 2006; Pattie & Johnston, 2008).

The third seemingly positive effect of political disagreement examined in recent research is a decrease in polarizing emotions. The logic is that exposure to cross-cutting views will temper a person's emotional enthusiasm for the in-party candidate, and also reduce negative emotions toward the out-party candidate (for a lengthier discussion of political emotions see Brader & Marcus, chapter 6, this volume). As a result, the gap in emotions toward the two candidates will shrink, leaving emotional responses that are less polarized. Parsons (2010) reports evidence that disagreement produces such a decrease in polarizing emotions. However, that effect, in turn, corresponds with a decline in political interest and a reduced likelihood of subsequent political participation. This suggests that exposure to disagreement may be something of a mixed blessing. Although at first glance, especially in an era marked by heated political rhetoric, a decrease in the intensity of emotions about politics may seem to be a positive result, muting those emotions may have the effect of lessening some people's commitment to civic engagement.

The broader implication is that political disagreement, regardless of whatever other benefits it may engender, conceivably has the effect of demobilizing prospective voters. Mutz (2002b; 2006) called attention to this possibility. Examining data from the United States, Mutz found that exposure to disagreement corresponds with a reduced propensity for political participation. One explanation for this is that exposure to mixed political signals may foster ambivalence. However, Mutz identified no support for this account. Instead, an individual-level disposition, conflict avoidance, was found to be central to the demobilizing influence of political disagreement. Specifically, a decrease in participation levels was most apt to occur among individuals who scored high in conflict avoidance and who were exposed to disagreement through social communication.

Mutz's (2002b; 2006) findings sparked several follow-up investigations designed to assess whether the demobilizing impact of political disagreement is present in all conditions and contexts. Subsequent studies have suggested that demobilization occurs only among individuals who are part of the political minority within the broader context (McClurg, 2006a), and that the occurrence of demobilization hinges in part on how disagreement is defined (Nir, 2011) and on the actual substantive content of cross-cutting political conversations (Lee, 2012). Further, outside of the United States, exposure to disagreement has been shown to correspond with increases, not decreases, in participation levels in Belgium (Quintelier, Stolle, & Harell, 2012) and Britain (Pattie & Johnston, 2009).

Huckfeldt, Mendez, and Osborn (2004) address the issue of political engagement within the context of network size, based on an analysis of candidate evaluation in the 2000 presidential election. First, their analyses show that people located within larger political networks are more likely to be politically interested and engaged, but they are also more likely to encounter political disagreement. As a consequence, attitude polarization regarding candidates is reduced—people are more likely to see both the strengths and the weaknesses of candidates. At the same time, attitude intensity is increased—people are able to provide more reasons for their attitudes toward the candidates (see Thompson, Zanna, & Griffin, 1995). The implications for political mobilization are partially offsetting, since the lack of polarization retards political engagement, while higher levels of intensity encourage it. Perhaps more importantly, these effects suggest a qualitative change in the basis for political involvement, moving away from the more partisan to the more thoughtful and balanced.

Collectively, these studies suggest that the possible negative influence of social exposure to disagreement on political participation is neither ironclad nor unconditional. As research in this area proceeds, the growing empirical record will help to determine whether the net effect of disagreement on civic engagement is positive or negative. Likewise, further refinement should be expected in our understanding of how disagreement interacts with individual-level dispositions and features of the social context.

In the past two sections, our review of research on self-selection and disagreement has concerned the broader issue of social influence. The guiding questions have been whether, and under what circumstances, political discussion holds the potential to influence participants' attitudes and patterns of behavior. But social influence is only one of two general effects associated with interpersonal discussion networks. The other is the possible social communication of political expertise. Irrespective of any direct influence on attitudes and behaviors, political discussion may increase a person's available stock of information, or it may improve the quality of the person's

political judgments. In short, talking about politics may help people to better perform the duties of citizenship. Numerous studies have examined this possibility.

6. Political Discussion and the Transmission of Expertise

Some individuals thrive on politics and political information. For them, attending to politics involves more than the fulfillment of civic duty. Following politics may constitute something of a hobby, or even a passion. These individuals voraciously read newspapers and magazines, they watch programs about politics on television, and they regularly consult various politically oriented websites. And, in the process, they accumulate large amounts of information about politics.

Whenever people develop expertise in an area, many will seek to share that expertise with others. This is true, for example, of our friends and acquaintances with gourmet tastes in food and wine, those who are highly attuned to the world of independent film, and those who are diehard fans of professional soccer. Likewise, it holds in the political realm. Many individuals are political experts who realize psychic and social rewards from engaging in political discussion (Ahn et al., 2010). We might even say that these individuals experience negative information costs (Fiorina, 1990). For people such as these, political arguments, observations, and facts come readily to mind. Moreover, they willingly share this information. Whether documented by their own self-reports or the reports of their associates, individuals with high levels of expertise also demonstrate relatively high levels of political discussion (Huckfeldt, 2001).

Political experts lie at the heart of democratic politics, and they may play a central role in fostering political discussion (see also Chong, chapter 4, this volume). This status has been acknowledged in research dating back to the Columbia studies (Lazarsfeld et al., 1948; Berelson et al., 1954). These efforts differentiated between citizens who were opinion leaders and those who were opinion followers, although later work (Katz, 1957) suggested that the distinction was not so clear-cut in that even would-be opinion leaders can be susceptible to external influence.

Differences in levels of political expertise can matter in two important ways for social communication about politics. First, variation across individuals in political expertise may shape patterns in the occurrence of political discussion—that is, which types of individuals do the most talking, which types of people are sought out as discussion partners, and so on. Second, expertise also may be consequential for the effects of political discussion. What a person's discussion partner brings to the table in terms of political expertise logically places an upper bound on what the person can gain from chatting with that discussant. It the discussion partner knows nothing about politics, then the person who talks with that discussion partner will learn nothing. Discourse with an expert discussant does not guarantee that a person's own level of political expertise will be elevated, but the social transmission of political information is precluded from the outset if neither conversation partner possesses any political expertise.

Individuals with high levels of political expertise generally also prefer to engage in relatively high levels of political discussion, but do people with lower levels of political information welcome these experts as discussion partners? Downs (1957, p. 229) suggested that they should. More specifically, Downs argued that political discussion minimizes the information costs of political engagement. Hence, reasonable, efficiency-minded citizens should search for well-informed associates who share their political orientations and draw cues from them via social communication (see also Mondak & Huckfeldt, 1992). Calvert (1985) also focused on the utility of socially communicated information, arguing that information is more useful if it is acquired

from someone with a clear bias independent of the recipient's own perspective. Of course, the recipient's bias adds a serious potential wrinkle. The value of communication with experts may be lost if recipients overestimate the expertise of those with whom they agree and underestimate it among those with whom they disagree (Lord, Ross, & Lepper, 1979; Lodge and Taber, 2000).

The empirical record provides grounds for cautious optimism regarding the social communication of political expertise. First, people engage in political discussion more frequently with discussion partners they judge to be politically expert, and this impact of expertise on discussion frequency is independent from the effects of agreement and disagreement (Huckfeldt, 2001). In short, people talk the most with the people who they think know the most. Second, people's judgments regarding the expertise of their discussion partners are rooted in reality. On a snowball survey of individuals' discussion partners, the discussants were asked a series of factual political knowledge questions. How well the discussants fared in answering these questions was correlated with how favorably the original respondents rated these discussants in terms of political expertise (Huckfeldt, 2001). In other words, people accurately perceive whether their political discussion partners are well informed or poorly informed. But third, there is no evidence to suggest that people weight expert discussants' views more heavily than nonexperts' views (Huckfeldt & Sprague, 1995). This means that people may not listen to experts with more respect. Nonetheless, they do converse with them with greater frequency.

What this suggests as a bottom line is that the dynamics of social communication produce the right result, but arguably for the wrong reason. Expert voices trump nonexperts in political discussion networks, but they do so because experts speak, and are listened to, with greater frequency, not because their views are held in higher esteem. In the aggregate, social communication exerts a positive impact on the level of citizen competence. The key reason that it does so is that those individuals with the greatest political expertise do the most talking.

The research on discussion and expertise reviewed thus far supports the inference that social communication bolsters aggregate levels of citizen competence. Still, a more direct test of this possibility would be useful. Toward this end, several recent studies have examined network effects on expertise by invoking the perspective of "voting correctly." Lau and Redlawsk's (1997; 2006; Lau, Andersen, & Redlawsk, 2008; Redlawsk & Lau, chapter 5, this volume) original investigation of correct voting did not explicitly involve social networks. Instead, the driving question in that research was how well citizens voted with access to less than full information. To gauge this, Lau and Redlawsk contrast the vote choices of experimental subjects in a mock election with their selections upon receiving all available information, and they contrast the votes of survey respondents with ideal votes as defined by the respondents' political predispositions and policy preferences. Results from both methods support the conclusion that voters vote correctly a solid majority of the time—about 70% of the time, on average—but also that many apparently incorrect votes are cast.

Richey (2008), Ryan (2011), and Sokhey and McClurg (forthcoming) all explore the possible effects of social communication on correct voting. Richey (2008) examines survey data. His key predictor is a measure of political knowledge in a person's discussion network, as perceived by the respondent. Richey finds that the likelihood of correct voting increases as individuals converse with more knowledgeable discussion partners. Ryan (2011) uses a laboratory experiment to study the impact of social communication on correct voting. Participants who are uninformed and politically independent fare better in terms of correct voting due to the positive impact of political discussion, but similar gains are not realized among participants who are

partisans. Last, Sokhey and McClurg (forthcoming) examine survey data in an effort to uncover the mechanism linking social communication and correct voting. Like Richey (2008), they find that political discussion exerts a positive effect on the quality of electoral decision making. However, rather than signaling the occurrence of learning, this effect is found to represent a simple heuristic process in which voters draw guidance from their discussion partners. Collectively, these recent studies demonstrate that social communication fosters citizen competence, but also that the effects are modest and limited in scope.

Thus far, the bulk of this chapter has examined research regarding the effects of social networks. Attention has been devoted primarily to the possibility of social influence, including the accompanying matters of self-selection and political disagreement. Extending beyond the question of influence, the present section has considered a second possible effect of political discussion, the potential for social communication to transmit political expertise. What we have not yet considered, except in passing, are the factors that operate to shape patterns in social communication. Political discussion may be influential, but what influences political discussion? We address this question in the chapter's final substantive section.

7. Determinants of Variance in Patterns of Political Discussion

Neither political discussion networks nor the conversations within them emerge independent of external forces. It follows that the failure to acknowledge these forces could lead analysts to overstate the independent impact of social communication for political behavior, and, correspondingly, to understate the significance of antecedent factors. In this section, two very different types of external forces will be considered. The first, which we have noted previously, is the impact of situational, or environmental, constraints on the formation, composition, and content of interpersonal discussion networks. At question is the extent to which factors outside of the individual's immediate control operate to shape the information the person encounters via social communication. Second, we will address the possibility that people's core psychological dispositions, or personality traits, influence their likelihood of engaging in and being receptive to political discussion. In this scenario, factors internal to the individual but external to the other members of the network may shape the potential for social influence. In the extreme, environmental and psychological influences on discussion networks may be thought of as competing. If networks were purely a product of the environments in which they are embedded, no room would exist for psychological dispositions to alter patterns of social communication. Conversely, if people's personality traits were the sole determinants of with whom, how often, and with what effects political discussion transpires, any influence of extraneous environmental factors would be precluded. In actuality, neither environmental nor psychological factors are all-powerful. Thus, a full understanding of the bases of variation in patterns of political discussion requires attention to both.

Earlier, while addressing the limits of self-selection, it was noted that networks must be seen within the contexts that house them (Huckfeldt & Sprague, 1987; 1995). In extreme cases, aspects of the surrounding environment can establish upper and lower bounds on numerous facets of networks, from size to content to density. If everyone in a person's context is a conservative, all of the person's discussion partners necessarily will be conservative. If no one in the context is willing to talk about politics, the person will be prevented from engaging in political discussion. If the available discussion partners all lack political expertise, conversations with them will not improve the quality of the individual's political decision-making. For most people, the contextual supply of potential discussion partners likely is not nearly so one-sided as in our examples.

Nonetheless, it remains the case that where a person lives, works, and worships can affect how diverse and how well-informed the person's political discussants are and how many she has.

The reality that the surrounding context impinges on interpersonal discussion networks brings implications for efforts to foster political discourse. If it were decided, for instance, that steps should be taken by community leaders or workplaces to increase the frequency with which citizens discuss politics, or to increase the level of cross-cutting political exchanges (or if people took it upon themselves to seek out more political discussion), the impact of context in structuring opportunities for interpersonal interaction would have to be acknowledged. Much as in Schelling's (1978) artful discussion of phenomena such as the inescapable mathematics of musical chairs, best wishes cannot overcome structural reality. If liberals in a given context outnumber conservatives by three to one, then we cannot pair up every liberal with a conservative discussion partner unless each conservative is called on for triple duty. If each person in a context has one discussion partner, and if half have discussants with more political expertise than the person himself, then members of the second half will be destined to find the conversations relatively uninformative.

Apart from structuring opportunities for networks to form and take shape, the external context also may matter for the topical content of political discussion. News media are thought to be especially important in this regard. With their two-step model, Lazarsfeld and his colleagues (Lazarsfeld et al., 1948; Katz & Lazarsfeld, 1955) provided early guidance regarding the possible interrelationship between news media and social communication. In the two-step framework, news reports are seen as fueling political discussion because opinion leaders take what they learn from the news and disseminate it via conversations with their associates. Lazarsfeld and his colleagues addressed the two-step model primarily in terms of the value of social communication in expanding the reach of stories that originated in news reports. However, the dynamic they outline also can be considered from the perspective of media's influence on political discussion: if the two-step model is accurate, then news media play an important role in shaping the content of—that is, of setting the agenda for—social communication (Valentino & Nardis, chapter 18, this volume). Logically, this rings true. It seems unlikely that many political topics, especially those on the national and international scenes, become the subjects of interpersonal discussion without first having been the subjects of news reports.

Subsequent works have built on the Lazarsfeld et al. perspective while incorporating insights from the media effects literature. Contemporary research that examines both news media and social communication suggests that the relationship between the two is complex. One study, which treated a newspaper strike as the centerpiece of a natural experiment, found that the occurrence of political discussion declined due to the dearth of raw material from news sources, but also that the influence of discussion rose because of the vacuum left by the shortage of news coverage of local elections (Mondak, 1995a; 1995b). Hence, news media and social communication were complements at one level, but competitors at another. A second study contrasted news media frames with those employed by acquaintances conversing about those same issues (Walsh, 2004). The frames used as part of social communication were a subset of those provided in news reports, suggesting that news frames and selectivity on the part of discussion partners combine to influence the eventual content of political discussion. Druckman and Nelson (2003) tackled a related question experimentally and found that elite framing of a topic is consequential in the absence of subsequent discussion, but that elite frames become irrelevant once a topic has been bandied about by a politically mixed group of discussants.

The upshot of all of this is that the flow of political information involves complex interactions among elite cues, news reports, and social communication. Although this complexity has long been noted, most theoretical and empirical frameworks continue to focus on individual elements of the information environment rather than endeavoring to integrate the study of elite messages, news media, and political discussion. Situating these three elements relative to one another is no easy task, yet doing so is essential if we are ever to have a holistic, comprehensive model of political communication.

Macro-level forces shape key aspects of social networks, but so, too, do micro-level psychological dispositions, or personality traits. Work in this area holds that core personality traits influence people's basic patterns of behavior. In the realm of social communication, psychological dispositions may matter for phenomena such as how talkative the person is, how receptive to exposure to disagreement, and how susceptible to social influence. We will expand on these possible effects below. First, though, it is important to note that any such influence of personality traits presupposes selectivity on the part of the individual. For instance, the introvert may prefer to avoid political discussion, but that preference only will be consequential for actual patterns of social communication to the extent that macro-level factors do not fully determine network structure and content. The more that political discussion is constrained by context, the less room remains for personal preferences—and thus personality traits—to play a role. Extant research reveals that both macro-level and micro-level factors influence social networks. Hence, our point is not that social communication is either environmentally or psychologically determined, but rather that variables at each level operate within parameters established by other very different types of variables.

Research on personality and politics has experienced a resurgence in recent years due to the emergence of the five-factor, or Big Five, framework (for reviews, see Caprara and Vecchione, chapter 2, this volume; Mondak & Hibbing, 2012). Proponents of the five-factor approach contend that the bulk of variation in personality trait structure can be represented with attention to five broad trait dimensions: openness to experience, conscientiousness, extraversion, agreeableness, and emotional stability. Applications of the five-factor framework in research on political behavior explore the possibility that personality differences influence numerous components of citizenship. Recently, several works have considered specific links between personality and multiple aspects of political discussion. This research advances two interrelated themes. First, people's basic psychological characteristics affect the attributes and consequences of their social networks. Second, it follows that personality traits may bring heterogeneity to social communication. This implies that when other research identifies effects of social networks, those are average effects across all individuals in a sample, and they may mask considerable personality-based individual-level variation.

Among studies examining personality effects on social communication, Kalish and Robins (2006) found relationships between extraversion and both network density and network size. Subsequently, several studies have considered personality as it relates specifically to patterns of political discussion. Positive effects of openness to experience and/or extraversion have been found on the frequency of political discussion (Gerber, Huber, Doherty, & Dowling, forthcoming; Hibbing, Ritchie, & Anderson, 2011; Mondak, 2010; Mondak & Halperin, 2008) and network size (Mondak, 2010; Mondak, Hibbing, Canache, Seligson, & Anderson, 2010).

Beyond aspects of network structure and composition, personality effects also have been observed with respect to the key issues of social influence and exposure to disagreement. Hibbing

et al. (2011) report that social influence on political judgments peaks among individuals who score high in openness to experience. This is a sensible finding in that people low in openness to experience—people who are characteristically closed-minded—should be resistant to efforts to change their views. As to disagreement, a question in the literature has been whether larger networks generally promote higher levels of exposure to diverse points of view (Huckfeldt, Johnson, & Sprague, 2004; Mutz, 2006). Research invoking the five-factor framework has found that the extent to which network size yields greater exposure to disagreement hinges partly on personality. Specifically, larger networks bring more exposure to cross-cutting views for individuals with high levels of extraversion and low levels of agreeableness (Mondak, 2010; Mondak et al., 2010). Extraverts value social interaction for its own sake and are relatively indiscriminate in terms of the selection of discussion partners, whereas introverts strongly emphasize maintenance of congenial social relations and thus steer clear of disagreement. Likewise, people high in agreeableness fundamentally dislike dissonant social relations and seek to avoid them; conversely, people who are psychologically prone to be disagreeable do not value consonance in social interactions—indeed, they often may be the source of disagreement in political discussion networks.

The recent resurgence in attention to personality and politics corresponds with, and is linked to, the flurry of work being conducted on biology and politics (see Funk, chapter 8, this volume, for a review). Students of biology and politics rightly acknowledge that most or all of the effects of biology on political behavior are indirect. It is implausible, for example, that there would be a gene for whether a person will discuss the candidates in an upcoming election or will have a one-person rather than three-person political discussion network. This means that biological variables must operate on politics indirectly, via some linkage mechanism. Students of both biology and politics (e.g., Alford, Funk, & Hibbing, 2005; Fowler, Baker, & Dawes, 2008; Smith, Oxley, Hibbing, Alford, & Hibbing, 2011) and personality and politics (e.g., Mondak, 2010; Mondak et al., 2010) have called attention to the possibility that biology matters for politics partly because biological influences contribute to the shape of people's core personality traits, which, in turn, affect political behavior (for direct tests of this thesis, see Dawes et al., 2011; Hibbing, 2011). In other words, personality traits may be key mechanisms connecting biology to political behavior.

We mention the possible linkages among biology, personality, and politics for two reasons. First, some studies have identified biological bases for differences in social communication. Using a twin study approach, Fowler, Dawes, and Christakis (2009) demonstrated that several facets of social interaction are heritable, which means that some portion of their variation is rooted in biology. More recently, Fowler, Settle, and Christakis (2011) identified correlations in genotypes among individuals in friendship networks. This research even has contemplated the effects of particular genes. For instance, Settle, Dawes, Christakis, and Fowler (2010) found that an individual's number of adolescent friendships predicts subsequent self-identification as an ideological liberal, but only among persons possessing the 7R variant of the dopamine receptor D4 gene.

A second reason to contemplate linkages among biology, personality, and social influence is that doing so may help us to gain leverage on the problem of endogeneity in social influence. For example, we might wish to assess the possible impact of Jane's political views on Joe's, while acknowledging the possible reciprocal effect of Joe on Jane. One approach might be to construct an instrument for Jane's ideology, one informed only by biology and/or personality. With a biology-based instrument for Jane's ideology, for example, we would be able to rule out the

possibility of reciprocal influence; that is, Jane's interaction with Joe would not have altered Jane's genetic profile. Consequently, if any correspondence we identify between the instrument for Jane's political dispositions and Joe's actual political views stems from social influence, it would have to be the result of Jane's impact on Joe.

As these examples highlight, emerging research on personality, biology, and politics brings the potential for scholars to produce new insights on many of the enduring questions central to the social communication literature. By doing so, this research promises to add precision to our understanding of the complex interplay between the macro-level and micro-level factors that shape political discussion and its effects. As such research proceeds, it will be important for scholars to keep in mind the key lessons learned about social networks over the past several decades, and to identify the central questions for which further clarification is needed. We briefly revisit these matters in this chapter's final section.

8. Conclusion and Prognosis

At the outset of this chapter, we introduced a person who is a rarity in modern polities, a political recluse. In contrast with that hypothetical figure, most people have at least occasional social encounters that expose them to other people's opinions and understandings of the political world. This chapter has examined research regarding the significance of those social encounters. Our primary focus has been people's day-to-day conversations, and the potential of those conversations to produce social influence and to transmit political expertise.

Research on the role of social influence on political behavior has continued to gain refinement and precision. In this chapter, we have sought to review these developments as a means both to survey what has been accomplished thus far and to suggest areas in which additional inquiry is needed. A primary argument of this effort is that progress in studying social influence in politics depends on continued innovation in observation and measurement. First, studies of social influence depend on the ability to observe individuals in relationship to other individuals. This requires moving beyond investigations of isolated individuals either in surveys or in laboratories. Studying social influence depends on the capacity to consider the messenger, the message, and the message's recipient. Moreover, while social influence occurs through these dyadic encounters, the dyads are not self-contained. Instead, each dyad is part of each participant's broader social network and is located within a particular social context. This means that continued progress in research concerning social influence in politics depends on the ability to observe the opportunities and constraints for communication and influence that these networks and contexts create.

Second, we are rapidly gaining new knowledge regarding the microfoundations of perception, cognition, and hence influence. In particular, progress regarding the biological and personality foundations of communication and influence lead us to reconsider the nature of social influence. Not only do studies of social influence in politics build on an observational commitment to the careful consideration of interdependence among participants in the communication process, but this work also requires a careful consideration of the exogenous contribution of inherently individual-level characteristics and predispositions. In short, it is neither nature nor nurture but rather the interplay between the two that is responsible for social communication and influence in politics.

Finally, the interaction between messenger, message, and recipient is necessarily based on stochastic processes of communication and influence that cannot be understood apart from their

underlying dynamic logics. At one level this means continued efforts must address problems related to self-selection. At another level, it means developing a more complete understanding of the dynamic structures that are responsible for creating various forms of interdependence among actors.

Enormous progress has been made on all these fronts since the pathbreaking work of Lazarsfeld and his colleagues at Columbia University (Lazarsfeld et al., 1948; Berelson et al., 1954), but a great deal remains to be accomplished. Progress is driven both by theory and observation. Theoretical imagination is required to formulate new questions and methods of observation. These questions and methods, in turn, not only provide answers to existing questions but also the theoretical vision to ask new ones.

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