

ELECTION CAMPAIGNS, SOCIAL COMMUNICATION, AND THE ACCESSIBILITY OF PERCEIVED DISCUSSANT PREFERENCE

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This paper examines the communication of political preferences between citizens during the course of an election campaign. We are particularly concerned with the ability of individuals to make judgments regarding the likely votes of others within their networks of relationships. To this end, we employ the concept of accessibility and its measurement device—response latency or response time—in the context of a computer-assisted telephone interview. We argue that the accessibility of respondent perceptions regarding the voting preferences of their associates depends on a range of individual and contextual factors, and the analysis focuses on variation across individuals, across relationships, and across the temporal contexts of election campaigns.

The communication of political preferences among and between citizens is an important part of democratic politics, but some political messages are communicated more effectively than others, and some messengers are more effective communicators. Identifying the various factors that enhance and impede the effective communication of political preferences is both a significant analytic challenge and a central task in more fully understanding the process of democratic deliberation (Huckfeldt and Sprague, 1995). Communications research shows that clearly and forcefully conveyed messages serve to link the message and the messenger in the perception of the receiver (Huckfeldt et al., forthcoming). Thus, one consequence of effective communication is an enhanced ability to perceive the political preferences of other citizens.

In this paper we are primarily concerned with election campaigns, social

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communication, and the strength and accessibility of the perceptions that citizens hold regarding their associates' political preferences. Understanding the strength and accessibility of perceptions and opinions is one element of a larger analytic challenge in political behavior and public opinion research (Krosnick and Petty, 1995; Fazio, 1995). Some opinions matter more than others, and determining which opinions are important to which individuals under which circumstances are central problems in political analysis. In this context we address general issues of theory and methodology in analyzing the accessibility of the perceptions, opinions, and attitudes held by individual citizens. Recent work in social and cognitive psychology has focused on the cognitive structure of attitudes and opinions (Lodge and Taber, *forthcoming*), where the accessibility of an attitude is defined with respect to the associative strength in memory between an attitude and an attitude object (Fazio, 1990a, 1995). Hence, accessible perceptions, opinions, and attitudes are closely connected to associated objects in memory, and various factors might be responsible for creating this accessibility: the frequency of discussion related to the perception or opinion, the lack of ambivalence with respect to a perception or opinion, and so on.

Just as important, accessibility reveals itself in terms of response latency—the time required for an individual to respond when presented with a stimulus. For example, people who possess accessible perceptions regarding the political preferences of a particular coworker should respond more rapidly when asked for their evaluation of that coworker's likely vote. An individual who responds instantaneously demonstrates an opinion that is more accessible than the opinion of an individual who responds only after extended consideration. Hence, an accessible perception may have fundamentally different consequences than an inaccessible perception, even if both perceptions identify the coworker as a likely Republican voter.

While pioneering work on accessibility and latency has occurred in experimental laboratory settings (Fazio et al., 1982), more recent efforts have incorporated these conceptual and methodological tools within computer-assisted telephone interviews (Bassili, 1993, 1995a, 1995b; Sniderman and Carmines, 1997). In this paper we continue in the tradition of these CATI studies by employing accessibility and response latency as tools for assessing social communication among citizens over the course of an election campaign. As part of a 1996 election study, 2,174 main respondents were interviewed between early March 1996 and early January 1997, and response time measures were included for various questions in the study. Our goal is to assess the utility of these response time measures for studying political communication among citizens, and our more general goal is to assess their utility for the analysis of electoral politics.

Two empirical strategies are employed in this context. First, we compare response latencies across individuals, across relationships, and across the tem-

poral contexts of an election campaign. Second, we explore the relationship between response latencies and meta-attitudes—the respondents' evaluations regarding their own attitudes, beliefs, or opinions (Bassili 1996). Before turning to these analyses, we consider accessibility and response latency more broadly in the context of political analysis.

THE PROBLEM: IDENTIFYING OPINIONS THAT MATTER

One of the primary problems that continues to plague the study of public opinion and political behavior is the identification of meaningful attitudes, beliefs, and opinions. Some of the earliest research on public opinion (Converse, 1964) alerted students of political behavior to the danger of opinion creation during the course of a survey interview. Lacking well-thought-out, previously articulated opinions, respondents were being encouraged to create their responses on the spot—responses that might be only tenuously tied to any preexistent belief or opinion. In such a circumstance, investigators run the risk of creating the opinion they are attempting to study, thereby producing measures of opinion that are unreliable and temporally unstable (see Achen, 1975). Such a problem is especially pernicious because it suggests the need to discriminate between authentic attitudes and attitudes of the moment, between people who really hold an opinion and those who formulate such a perception on the fly. In short, the report of an opinion by a respondent offers little basis for taking the opinion seriously.

This theme was most recently revisited and extended by Zaller and Feldman (1992) in their theory of the survey response (also see Zaller, 1992). According to Zaller and Feldman, survey responses are often created on the spot because few people carry around highly articulated responses to potential survey questions. Rather, they formulate their responses based on a variety of considerations, and the mix of considerations that produces the response depends on circumstances both internal and external to the individual, including the form and content of the survey question, the sophistication of the respondent, the political context created by the external environment, and more.

As a consequence of these challenges, students of political behavior have employed various measures related to the strength of opinions and attitudes. How extreme are citizens in their reported opinions (Abelson, 1995)? How certain are individuals with respect to their judgments (Gross et al., 1995)? Such information is frequently collected in the form of “meta-attitudes” (Bassili, 1993, 1996)—respondents are, in effect, asked questions regarding their opinions about their opinions. For example, if you believe that access to abortions should be unrestricted, how likely are you to change your mind? Or, in an example familiar to many political scientists, if you think of yourself as a Democrat, how *strongly* do you think of yourself as a Democrat? In terms of

the current effort, if you believe that your coworker will support Bob Dole, how difficult or easy was it for you to make that judgment?

Although a great deal of progress has been realized in this manner, measurements of meta-attitudes are subject to many of the same problems as the original attitude measures. If people are capable of creating opinions on the spot, they are also capable of creating opinions *regarding* these opinions on the spot, and consequently their own perceptions of their own opinions are subject to a wide range of extraneous effects. Indeed, if the strength of an opinion or perception is related to the manner in which it is stored in long-term memory, then the ability of respondents to provide information regarding the strength of their own opinions is seriously called into question. Rather, they can only provide, at best, second-hand perceptions based on symptomatic indicators—ease of recall, emotional intensity, and so on (Bassili, 1996). In the present paper we take a different approach to the problem by introducing the cognitive concepts of accessibility and associative strength, as well as a measurement device, response latency or response time.

LATENCY, ACCESSIBILITY, AND ASSOCIATIVE STRENGTH

Fazio (1990, pp. 89–94) identifies three measurement uses for latency data: the ease with which individuals form an inferential construct, the efficiency with which individuals process information and make judgments, and the strength of association between objects in memory. In this paper, we are primarily concerned with this final use of latency data, although the first two uses are certainly relevant to the concerns of many political scientists. In particular, we are concerned with latency as a measure of the strength of associations in memory and how long it takes voters to tell us for whom their associates will vote. Thus, we are employing the response time (or the response latency) to measure the accessibility of a judgment regarding the vote preference of one's associate—the strength of association in the respondent's memory between the associate and support for one of the candidates.

Accessible attitudes, opinions, and beliefs are distinguished by their position in long-term memory. They are accessible because they are readily and easily available in the individual's cognitive structure. In this way, accessibility provides an alternative way to think about attitudes and nonattitudes, opinions and nonopinions. If a person's perception regarding a coworker's vote preference is highly accessible, we might say that he or she possesses a true opinion regarding the subject. If the perception is highly inaccessible, we might say he or she possesses a nonopinion because the respondent is forced to construct the perception based on various environmental cues and heuristic devices (Converse, 1995; Huckfeldt et al., forthcoming).¹

The concept of accessibility is more than a new bottle for old wine, how-

ever. The explanatory power of accessibility lies in its relationship to theories regarding cognitive process. Accessible opinions, perceptions, and beliefs are easily retrieved from memory, and hence accessibility provides important information regarding the relative importance of opinions and beliefs held by individual citizens. What are the factors that enhance associative strength and accessibility?² In particular, what are some of the factors that might enhance the accessibility of an individual's perceptions regarding an associate's political preferences? People who feel deeply and strongly about particular sets of issues think about them more, and hence they hold opinions that benefit from repeated consideration, thereby making related constructs and opinions "chronically" accessible (Higgins and King, 1981; Bargh et al., 1988; Higgins and Bargh, 1987). In the context of perceptions regarding the political preferences of others, we might thus expect stronger partisans to possess more accessible opinions regarding their associates' partisan preferences.

Moreover, perceptions regarding the political preferences of an associate should be more accessible if an individual has been confronted with the associate's preferences more recently (Wyer and Srull, 1981). A variety of factors might affect how recently political discussion has occurred between two associates, but we are particularly interested in the consequences of a high-visibility presidential election campaign for stimulating social communication. To the extent that the campaign encourages political discussion, we should expect an increase in the accessibility of perceptions regarding the political preferences of associates due to a higher likelihood of recent political communication—a higher likelihood stimulated by a change in the individual's surrounding social context (Higgins and King, 1981).

In summary, associative strength and accessibility are centrally related to the processing of information by individuals. The accessibility of perceptions regarding the political preferences of particular associates should be centrally related to structured patterns of social communication—to the processing of information *between* and *among* citizens that occurs in the context of an election campaign. One way to measure associative strength and accessibility is with latency data regarding response times. In the context of a computer-assisted telephone interview (CATI), latency data provide the times of response to survey questions based on the computer clock—the individual processing time that an individual requires in responding to a question or stimulus.

THE STUDY

The database for this paper is taken from a 1996 election study conducted by the Center for Survey Research at Indiana University. Our study is primarily concerned with patterns of communication over the course of the cam-

paign, with interviews beginning in late February 1996 and ending in early January 1997. Our main sample, upon which this analysis is based, includes 2,174 respondents drawn from the voter registration lists of two study sites: (1) the Indianapolis metropolitan area defined as Marion County, Indiana, and (2) the St. Louis metropolitan area defined as the independent city of St. Louis combined with the surrounding (and mostly suburban) St. Louis County, Missouri. Our preelection sampling plan was to complete interviews with 40 main respondents each week before the election, equally divided between the two study sites. After the election, an additional 800 main respondents were interviewed, once again divided between St. Louis and Indianapolis.³

In an earlier era of paper-and-pencil surveys and personal interviews, it would have been impossible to measure unobtrusively the time required by respondents to answer questions. But in the modern era of CATI and computer-assisted personal interviewing, technology and instrumentation are available to incorporate accessibility and response latency into the dominant technology of voting and opinion studies—the survey interview. Indeed, Bassili (1993, 1995a, 1995b) has successfully measured response latency in several studies, and Sniderman and Carmines (1997) incorporate a measure of response time into their study of racial attitudes and opinions. Our goal in this paper is to pursue the path opened in these efforts by reporting on analyses that incorporated response latencies into a telephone survey of attitudes, opinions, and perceptions during the course of an election campaign.

Within the context of CATI, the most readily available method for measuring response time is an interviewer-activated timer, hereafter referred to as the “activated timer.” Using this method, the interviewer was instructed to start a timer with a key stroke immediately after reading a question. As soon as the respondent began to answer the question, the interviewer stopped the timer with the same key stroke, and the CATI system used the computer clock to record the elapsed time in hundredths of a second. As might be expected, there were numerous opportunities for measurement error to occur, and hence the interviewer was asked whether the timing occurred successfully after the respondent’s answer was recorded. Quite clearly, the interviewer played a crucial role in the implementation of the activated timer, and training was very important.

A second type of timer was also employed in our study. This “latent timer” was invisible not only to the respondent but to the interviewer as well. The timer was activated when the respondent’s response was recorded to the previous question, and it was stopped when the interviewer recorded the respondent’s answer to the current question. Hence, the latent timer recorded the elapsed time from the end of one question to the end of the subsequent question, thereby measuring not only the time required to answer the question but the total time required both to ask and to answer. Although the latent

timer has several obvious disadvantages, it has several advantages as well. In particular, it requires little interviewer training or effort, and it is therefore easily implemented for each and every item in the survey, including items that invoked an activated timer.

Our analyses depend primarily on the use of the activated timers, and a number of procedural details must be addressed with respect to their use. First, respondents sometimes answered a question before the question was completely read. In such an instance, the interviewer was instructed to record the response time as being simultaneous by instantaneously turning the timer on and off.⁴

Second, after stopping the timer and recording the respondent's answer to the question, the interviewers were asked whether the timing was successful, and thus we were able to redefine unsuccessful timings as missing data. The primary reason for an unsuccessful timing was a "trigger-happy" interviewer who stopped the timer too quickly.

Third, respondents sometimes asked for clarification about a question. Interviewers were instructed to let the timer run during these questions, and thus the distribution of response times is highly skewed—an issue we address in the analyses.

Finally, interviewers occasionally and inadvertently erased valid timings by using a skip command to return to an earlier question at the respondent's request. In these instances, the new timing was artificially low due to the interviewer's action in returning to the original place in the interview. Although interviewers were instructed to reset such activated timers to missing, we were able to validate the activated timings by comparing them with the latent timings. If the latent timing was too short to allow a question to be read, both the latent timer and the activated timer were set to missing.⁵

RESPONSE TIMES AND SOCIAL NETWORKS

The primary goal of our study is to assess the consequences of election campaigns for patterns of democratic deliberation within electorates. Within this context, a central question becomes: How is the dyadic political synapse between two citizens affected by the dynamic logic of an election campaign? In order to address these issues, we employ a social network name generator to construct measures of the connecting ties between our respondents and the other individuals who reside within their closely defined microenvironments (Burt, 1986; Huckfeldt and Sprague, 1995).

Every respondent to the survey was asked to provide the first names of not more than five discussion partners. A random half of the sample was asked to name people with whom they discuss "important matters"; the other half was asked to name people with whom they discuss "government, elections, and

politics" (Burt, 1986; Huckfeldt and Sprague, 1995; Huckfeldt et al., 1995). After asking a battery of questions about every discussant, the interviewer asked the respondent to identify the presidential candidate supported by each of the discussants. Before election day, the interviewer asked the respondent for whom the discussant was likely to vote.⁶ After election day, the interviewer asked the respondent how the discussant voted. Immediately after asking the question, the interviewer used a key stroke to start a computer clock. As soon as the respondent answered the question, the interviewer used a second key stroke to stop the clock before recording the respondent's answer. The CATI system then asked the interviewer whether the timing was successful. Finally, the interviewer asked a follow-up question: "How difficult or easy was it to say how [discussant's first name] voted?"

We might profitably conceive a baseline speed of response (Fazio, 1990), idiosyncratic to each respondent, that is affected by a range of individual characteristics. As a matter of empirical explanation, this baseline might be modeled on the basis of personality traits and attitudes—strong partisans may, in general, respond more rapidly to questions about politics. Alternatively, as a matter of statistical control, we might take into account the baseline speed of response, measured as a mean response time, when considering response latencies with respect to particular survey questions. Finally, deviations from the baseline speed of response for particular respondents are affected by the immediate context of specific survey questions, and particularly by learning processes that occur during an interview.

Any survey involves a learning curve on the part of respondents, particularly within a battery of similar questions. Hence, the order of the discussant vote preference questions was varied according to the number of identified discussants. The first question was always asked with respect to the first named discussant. Respondents who named three discussants were asked, in sequence, about the first, the third, and the second. Respondents who named four discussants were asked about the first, the fourth, the third, and the second. Finally, respondents who named five discussants were asked about the first, the fifth, the second, the fourth, and the third. Particularly when the first discussant is eliminated from the analysis, such an ordering makes it possible to discriminate between two potential order effects: the order in which the respondents were asked their opinions regarding the discussants—the "question order" or learning curve—and the order in which respondents initially named the discussants—"the discussant order." Indeed, once the first discussant is eliminated, the two orderings are only weakly related ($r = -.14$).

One of the biggest problems with latency data is the noise that is inevitably present in measures of response time, and this problem is exacerbated in the context of a nonlaboratory setting. Hence, one of the analytic challenges is to define missing data, and we employed the following sequence of steps.

1. The activated timing is set to missing whenever the interviewer reports an unsuccessful timing.
2. The activated timing is set to missing when the latent timer (which includes the time required to ask the question) indicates a time interval that is too brief for a question to be read. What constitutes a time interval that is too short for reading a question? Our procedure is to treat any latent timing shorter than 1 second as being too short. Of course, some questions require much more time to be read, but hardly any would require less time. One second is a reasonable estimate of the minimal time required to read a simple stimulus. Just as important, we are using this filter to clean the data of instances in which an interviewer has simply skipped through a series of questions and timers without stopping to record an activated timer as missing. One second provides a sufficient interval of time for the interviewer to skip through the questions, and hence we judge it to provide an acceptable procedural guideline.
3. The activated timing is set to missing when the recorded time lies more than 3 standard deviations above the mean for the remaining sample. Even after trimming the tail in this manner, the distribution is still significantly skewed, and hence the mean for any set of timings is a less-than-optimal measure of central tendency. In general, when we calculate a mean response time, we first log the individual times and then take the mean of the logs.

Interviews were conducted with 2,174 respondents, and these respondents identified 5,491 discussants. Each of these respondent-discussant pairs provides a potential case for the analysis of response times with respect to the perceptions of discussants' political preferences. This means, in turn, that individual respondents are represented in multiple rows within the data matrix, and we are engaged in one version of a pooled analysis, where the pooling unit is the individual respondent. In order to both avoid correlated dependent variables and take account of individual-level differences in response time, we include a control variable for the baseline speed of response, which is the mean response time for all the perceptions of discussants *except* the discussant represented in that particular row of the matrix. To illustrate, if the respondent has three discussants, the baseline would be based on the mean response time for the two not being considered in the particular case. We adopt this procedure to avoid creating a measure that is correlated with the dependent variable by construction. As discussed earlier, each of the response times is logged before the mean is constructed. In summary, the baseline speed is estimated with respect to the respondent's other discussants, and hence it takes account of variation within a single respondent's set of response times, as well as among respondents in the entire sample.

DISCUSSANT ORDER AND THE LEARNING CURVE

How important is the learning curve for the speed with which respondents answer the questions regarding their discussant's voting preferences? Even after eliminating the first discussant, the regression model⁷ in Part A of Table 1 shows a reasonably pronounced effect on response time of -15.2 . Thus, a respondent with five discussants would be expected to respond nearly a half second faster to the last question than to the second question. (Recall that the order in which the questions are asked is different from the order in which the discussants were identified.) As Figure 1 shows, the effect would become more pronounced if the first discussant is added to the analysis.

In the context of the learning curve, how important is the sequence in which the discussants are identified by the respondent? A guiding principle of egocentric social network research is that discussants identified later in the sequence should be more weakly tied to the main respondent (Granovetter, 1973; Burt, 1986). Do we see evidence of these weak ties in the speed with which respondents respond to questions regarding the discussants' voting preferences? Part B of Table 1 shows an effect on response time that lies in the expected direction, where the candidate preferences of discussants named later require more time to be identified. The magnitude of this effect is similar to the magnitude of the question order effect, where the fifth question would be answered about a half second faster than the second question.

Notice that to this point we have not yet explored the effects of any respondent supplied information that might affect accessibility. That is, we have not yet entertained any respondent reports regarding the various characteristics of the respondent and perceptions of the discussant that might help explain why some perceptions are more accessible than others. Before turning to these other factors, however, we focus on one more situational variable that lies beyond the reach of the respondent—the political-temporal context of the interview.

TIME AND CAMPAIGN EFFECTS

How are citizens' perceptions of each other affected by the progress of the campaign? As the campaign progresses and opportunities accumulate for the communication of preferences among citizens, we might expect citizens to develop more accessible perceptions of their associates' preferences. Our research design included interviews spread over a 10-month period. When the first interviews were conducted, the outcome of the Republican primary campaign was uncertain, and no one knew whether Ross Perot would be a candidate, with the possible exception of Perot himself. The final 40% of our interviews were conducted after the election, when the outcome was an accomplished fact. Hence, we might expect that accessibility should be affected by

TABLE 1. Response Time for Perceptions of Discussants' Political Preferences, with the First Discussant Deleted

A. By the baseline speed of response and by question order			
	Coefficient	<i>t</i> -Value	
Constant	-129.109	-4.225	<i>N</i> = 3199
Baseline speed	79.915	14.638	<i>R</i> ² = .07
Question order	-15.229	-3.851	<i>S</i> = 241
B. By the baseline speed of response, question order, and discussant order			
	Coefficient	<i>t</i> -Value	
Constant	-186.396	-5.357	<i>N</i> = 3199
Baseline speed	81.381	14.885	<i>R</i> ² = .07
Question order	-13.550	-3.276	<i>S</i> = 241
Discussant order	14.036	3.424	
C. By the baseline speed of response, question order, discussant order, and campaign week			
	Coefficient	<i>t</i> -Value	
Constant	-164.341	-4.535	<i>N</i> = 3199
Baseline speed	81.023	14.822	<i>R</i> ² = .07
Question order	-13.553	-3.327	<i>S</i> = 240
Discussant order	13.809	3.370	
Campaign week	-0.721	-2.164	
D. By the baseline speed of response, question order, discussant order, campaign week, and the interaction between discussant order and campaign week			
	Coefficient	<i>t</i> -Value	
Constant	-226.142	-5.047	<i>N</i> = 3199
Baseline speed	81.210	14.865	<i>R</i> ² = .07
Question Order	-13.367	-3.283	<i>S</i> = 240
Discussant Order	33.337	3.588	
Campaign week	1.568	1.519	
Discussant order × Week	-0.744	-2.341	

Response time for perception of discussant: measured in hundredths of seconds.

Baseline speed of response: mean of the logged response times for the perceptions of the remaining political discussants.

Question order: order in which the respondent is asked for the perception of a particular discussant (range is 2 to 5).

Discussant order: order in which the respondent provided the name of a particular discussant (range is 2 to 5).

Campaign week: the week during the study in which the interview was completed (range is 1 to 43).

Note: For these and all subsequent linear models, the *p*-value for the regression is less than .001; *S* is the standard error of the estimate.

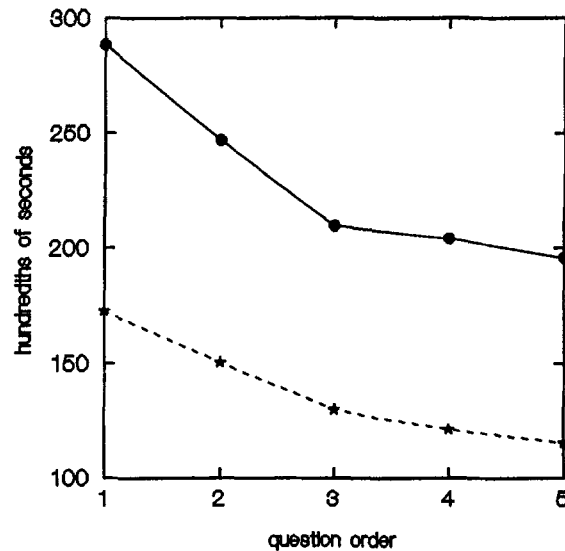


FIG. 1. Mean response time by question order. *Note:* The top line is the simple mean. The bottom line is the anti-log of the mean of the logs.

the dynamic unfolding of the campaign: Choices are clarified, preferences solidify, and effective communication occurs.

We begin in Part C of Table 1 by examining the effect of the political-temporal context, measured as the campaign week in which the interview occurred.⁸ The metric begins with week 1, which is the first week of March, continues through the election (week 36), and culminates at the end of the study (week 43). As Table 1C shows, response time decreases as a function of campaign time. Hence it appears that respondents' perceptions of their discussants' political preferences become more accessible as the campaign progresses.

In light of the effect for discussant order, it is reasonable to ask whether the two effects are contingent on one another. That is, does the clarifying effect of the campaign depend on which discussant is being perceived? Alternatively, does the effect of discussant order vary across the campaign? We investigate these possibilities in Part D of Table 1, where a multiplicative interaction between time and discussant order is included in the model. The model demonstrates a statistically discernible effect due to the interaction, such that (1) the effect of discussant order is reduced across the campaign and (2) the effect of the campaign is enhanced for discussants identified later in the sequence. Before examining these effects more carefully, we take advantage of the experimental condition that is embedded in the name generator for identifying discussion partners.

POLITICS VERSUS IMPORTANT MATTERS

The respondents were randomly assigned one of two social network name generators: One asked for the names of those people with whom they discussed "important matters" (Burt, 1986), and a second asked for the names of those people with whom they discussed "government, elections, and politics" (Huckfeldt and Sprague, 1995). Thus the question arises, do people respond differently to the different questions? Perhaps more meaningfully, is the structure of the explicitly defined political discussion network different from the structure of a more generally defined network? And what are the consequences for this analysis?

TABLE 2. Response Time for Perceptions of Discussants' Political Preferences, for Important Matters Discussants and Political Discussants, with First Discussant Deleted

A. By the baseline speed of response, question order, discussant order, campaign week, and the interaction between campaign week and discussant order					
	Important Matters Discussants		Political Discussants		<i>t</i> for Coefficient Difference
	Coefficient	<i>t</i> -Value	Coefficient	<i>t</i> -Value	
Constant	− 133.757	− 2.225	− 323.931	− 4.858	2.122
Baseline speed	74.812	10.123	88.611	11.003	1.264
Question order	− 2.896	− 0.521	− 23.452	− 3.947	2.528
Discussant order	4.410	0.343	61.233	4.563	3.056
Campaign week	− 1.381	− 0.977	4.455	2.955	2.826
Discussant order × Week	0.151	0.341	− 1.588	− 3.483	2.737
	<i>N</i> = 1632		<i>N</i> = 1567		
	<i>R</i> ² = .06		<i>R</i> ² = .10		
	<i>S</i> = 232		<i>S</i> = 248		
B. By the baseline speed of response, question order, discussant order, and the campaign week					
	Important Matters Discussants		Political Discussants		<i>t</i> for Coefficient Difference
	Coefficient	<i>t</i> -Value	Coefficient	<i>t</i> -Value	
Constant	− 145.845	− 3.003	− 186.632	− 3.458	.563
Baseline speed	74.825	10.128	87.940	10.884	1.200
Question order	− 2.877	− 0.518	− 24.108	4.045	2.607
Discussant order	8.366	1.497	19.387	3.232	1.345
Campaign week	− 0.925	− 2.032	− 0.516	− 1.061	.614
	<i>N</i> = 1632		<i>N</i> = 1567		
	<i>R</i> ² = .06		<i>R</i> ² = .09		
	<i>S</i> = 232		<i>S</i> = 248		

The model of Table 1D is reestimated in Part A of Table 2 separately for those respondents who were asked the political discussion name generator and for those respondents who were asked the important matters name generator. Within the important matters sample, the estimates show no effects for question order, discussant order, campaign week, or the interaction. In contrast, the estimates for the political discussion sample are quite dramatically enhanced, both with respect to the important matters sample and with respect to the results of Table 1D.⁹ How should we understand these patterns of effects?

First, in terms of the important matters sample, the order in which discussants are identified is evidently orthogonal to their importance with respect to political discussion. Moreover, because the order in which they are identified is unrelated to their political importance, reordering them with a control for the order of identification fails to reveal a learning curve effect on response time. In other words, because discussant order is unrelated to accessibility, controlling for discussant order fails to reveal a question order effect. In summary, if the important matters discussants are identified in an order that is related to the underlying strength of the relationship (Burt, 1986), then it would appear that this order is unrelated to the strength and accessibility of perceptions regarding discussant preferences. This is an important result: *Weak ties are not necessarily weak sources of political communication and information* (Granovetter 1973).

Second, the results for the political discussion sample provide a stark contrast: The effects of discussion order, question order, campaign week, and the interaction are all quite dramatic. Within the context of this multiplicative interaction, it is helpful to display the effects graphically, while holding other variables constant at mean values.¹⁰ This is done in Figure 2, using both two-dimensional and three-dimensional projections onto the plane, and we see a revealing pattern of effects. At the beginning of the campaign, discussant order has a pronounced effect on accessibility, with perceptions of earlier named discussants being more accessible. At the end of the campaign, discussant order has no effect primarily because the accessibility of perceptions regarding later named discussants increases dramatically during the course of the campaign. The campaign has the net effect of bringing politics to the forefront of most relationships, even within relationships that are more peripheral in their political importance to the respondent. Thus, as the campaign progresses, political ambiguity is reduced throughout a person's network of relations.¹¹

The lack of an effect for campaign week within the important matters sample should be seen within the context of highly correlated regressors. When the models of Table 2A are reestimated without the interaction term in Table 2B, we see the effect of campaign week reappear for the important matters discussants, while it nearly disappears for the political discussants. The order

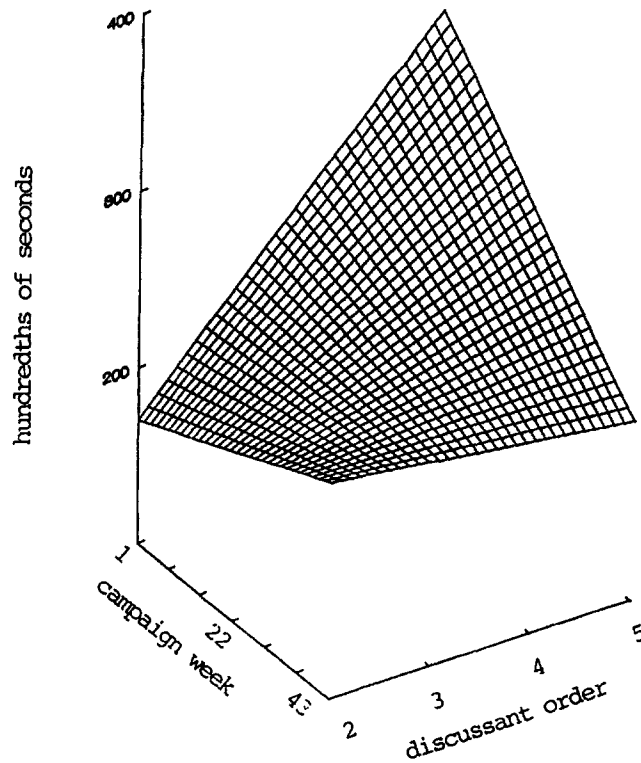
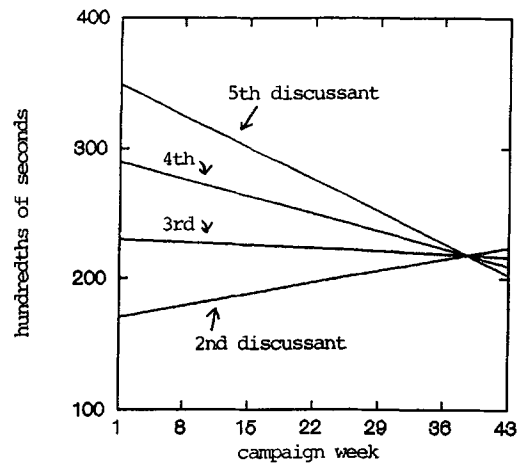


FIG. 2. Interactive effects of discussant order and campaign week on response time, for political discussants name generator. *Source:* Table 2A estimates, second model.

in which the important matters discussants are named is unrelated to accessibility, and including it in an interaction term with campaign week only serves to produce correlated regressors without any enhancement in statistical purchase. In contrast, the order in which discussants are identified in response to the political discussion name generator has important implications for the accessibility of perceptions regarding discussant preferences and it is centrally related to the potential for campaign effects on accessibility. In summary, although the effect of the campaign dynamic is best understood within the context of discussant order for the political discussants, it is best understood apart from that context for the important matters discussants.

RESPONSE LATENCIES AND SUBSTANTIVE SURVEY RESPONSES

How well are response latencies predicted on the basis of substantive responses to survey questions? In Table 3 the response latencies are reconsidered in the context of several factors that might account for the accessibility of respondent perceptions regarding their discussants' political preferences. Part A of Table 3 only includes the campaign week and a series of survey responses as explanatory variables. The first model provides estimates for the sample that responded to the important matters name generator, while the second model provides estimates for those individuals who responded to the political discussion name generator. First, we might expect that respondents who are highly partisan would possess more accessible judgments regarding their associates' political preferences. Second, we might also expect respondents to be more aware of a discussant's political preferences if they report a higher frequency of political discussion with that particular discussant, if they report a higher frequency of overall interaction with the discussant, and if they believe that the discussant is knowledgeable regarding politics. Finally, we might expect that judgments regarding a discussant's political preference would be more accessible for discussants who are relatives and close friends. As the table shows, these expectations are generally sustained—the exceptions being the lack of statistically discernible effects for close friends (see Huckfeldt and Sprague, 1995, chapter 9), imputed discussant knowledge, and general interaction frequency. Although the reported frequency of political discussion fails to produce a discernible effect for the important matters sample, it does produce a discernible effect for the political discussion sample. Moreover, the final column of *t*-values shows that there are no statistically discernible differences in the magnitudes of effects between the samples.

We estimate similar models in Part B of Table 3, but a control is included in each model for the baseline speed of response. The estimates in Part B parallel those in Part A, with several exceptions. Once again, there are no discernible differences in the magnitudes of effects between the two samples,

TABLE 3. Response Time for Perception of Discussant's Political Preference as a Function of Both Situational and Survey Measures, with First Discussant Deleted

A. As a function of survey measures and week of interview					
	Important Matters Discussants		Political Discussants		<i>t</i> for Coefficient Difference
	Coefficient	<i>t</i> -Value	Coefficient	<i>t</i> -Value	
Constant	287.598	8.720	225.731	6.253	1.267
Campaign week	-1.051	2.177	-0.993	1.900	.082
Partisan	-15.905	2.384	-22.787	3.163	.701
Relative	-54.561	3.624	-30.899	1.900	1.068
Close friend	-19.418	1.181	-13.194	0.775	.263
Pol. knowl.	6.357	0.571	13.354	1.106	.426
Interact freq.	-3.409	1.311	-0.723	0.245	.684
Pol. dis. freq.	10.575	1.336	30.219	3.016	1.548
	<i>N</i> = 1565		<i>N</i> = 1513		
	<i>R</i> ² = .02		<i>R</i> ² = .02		
	<i>S</i> = 241		<i>S</i> = 259		
B. As a function of survey measures, week of interview, and baseline speed of response					
	Important Matters Discussants		Political Discussants		<i>t</i> for Coefficient Difference
	Coefficient	<i>t</i> -Value	Coefficient	<i>t</i> -Value	
Constant	-94.134	1.804	-218.013	3.871	1.615
Baseline speed	71.376	9.232	85.221	10.044	1.208
Campaign week	-1.017	2.155	-0.639	1.251	.544
Partisan	-6.773	1.027	-10.863	1.523	.421
Relative	-52.425	3.568	-32.723	2.058	.911
Close friend	-18.828	1.173	-6.991	0.421	.512
Pol. knowl.	8.360	0.768	9.713	0.821	.084
Interact freq.	-2.677	1.056	-0.254	0.088	.633
Pol. dis. freq.	8.910	1.152	26.152	2.668	1.390
	<i>N</i> = 1551		<i>N</i> = 1491		
	<i>R</i> ² = .07		<i>R</i> ² = .08		
	<i>S</i> = 234		<i>S</i> = 251		

Response time for perception of discussant: measured in hundredths of seconds.

Pol. knowl.: respondent assessment of discussant's political knowledge; range is 1 (great deal) to 3 (not much).

Pol. dis. freq.: political discussion frequency; range is 1 (often) to 4 (never).

Interact freq.: frequency of interaction; range is 0 (seldom/never) to 7 (every day).

Partisan: strength of partisan attachment; range is 0 (independent) to 3 (strong identifier).

Relative: 1 if discussant is a relative; 0 otherwise.

Close friend: 1 if a nonrelative discussant is a close friend; 0 otherwise.

but while the effect of the campaign week lies in the expected direction for the political discussion sample, it fails to produce a substantial t -value. Second, partisanship fails to produce a discernible effect for either sample—a consequence of the fact that it is correlated with the baseline speed of response ($r = -.15$). Finally, by including the baseline speed of response, noise is reduced, r^2 values are increased, and the standard errors of the estimates are reduced.

Hence, response latencies are not only subject to explanation based on the objective circumstances of the interview setting—the order of questions, the week of the interview, etc.—but also on the basis of respondent-supplied information. In this way, response time becomes another piece of information regarding the respondent and his or her preferences, judgments, and perceptions that might be analyzed in a manner similar to any other piece of survey information.

LATENCIES AND META-ATTITUDES

What is the relationship between response latencies and meta-attitudes? If the relationship is positive, why not just ask questions rather than timing responses? In assessing the response times to particular stimuli, we are attempting to evaluate the accessibility of various opinions and perceptions held by the respondent. Are the opinions held firmly or weakly? Was it easy or difficult to make the judgment? And so on. The alternative to response time is simply to ask the question, thereby depending on the respondent's own assessment regarding the strength of his or her perception. We included both types of measures in the study, and hence we are able to compare the two. In the context of perceptions regarding individual discussants' political preferences, we asked respondents "how difficult or easy" it was to provide the perception. The respondents reported that it was very difficult, somewhat difficult, somewhat easy, or very easy. We coded these perceptions on a scale of 1 to 4, where "very easy" is 4. Respondents who did not know their discussants' political preferences were not asked this follow-up question, and they are coded as 0 on the measure.

What is the relationship between the response latency and the meta-attitude? As the ordered probit model of Table 4 shows, the relationship is very strong. Even when the mean speed of response is controlled in Part B of the table, the meta-attitude produces a coefficient that lies in the appropriate direction with a substantial t -value. The magnitude of the relationship, displayed in Figure 3, is quite substantial. Response time is dummy coded at its median (1.3 seconds), and the probability that a respondent finds it "very easy" to provide the judgment regarding a discussant decreases by more than .3 from the accessible to the inaccessible half samples. Correspondingly, the

TABLE 4. The Relationship Between Response Time and Metaperception for the Perceptions of Discussants' Political Preferences, with First Discussant Deleted: Ordered Probit Models

A. Metaperception by dummy coded response time			
	Coefficient	t-Value	
Constant	1.731	48.710	$N = 3212$
Response time (dummy)	-.887	21.244	$\chi^2 = 450$
			$DF = 1$
			$p = .00$
Threshold (1)	.152	10.446	
Threshold (2)	.588	23.873	
Threshold (3)	1.187	40.344	
B. Meta-perception by dummy coded response time and the baseline speed of response			
	Coefficient	t-Value	
Constant	1.908	14.032	
Baseline speed	-.038	1.381	$N = 3174$
Response time (dummy)	-.868	19.807	$\chi^2 = 447$
			$DF = 2$
			$p = .00$
Threshold (1)	.151	10.341	
Threshold (2)	.586	23.677	
Threshold (3)	1.180	39.930	
C. Distribution of perceived difficulty			
	%	Cumulative %	
Don't know	12.7	12.7	
Very difficult	3.6	16.3	
Somewhat difficult	11.8	28.1	
Somewhat easy	19.6	47.7	
Very easy	52.3	100.0	
$N =$		3716	

probability that the respondent reports not knowing increases by more than .15.

At the very least, these data suggest that response latencies are closely related to meta-attitudes. But if we assume that people form judgments of their own opinions based on the accessibility of the opinions in their own memories (Gross et al., 1995), then these data suggest that the effect of accessibility on the respondents' evaluations of their own perceptions is quite profoundly important. Do the two devices—the meta-perception and the accessibility of the perception—measure the same thing? We reformulate this question slightly to ask if they are interchangeable in analyses.

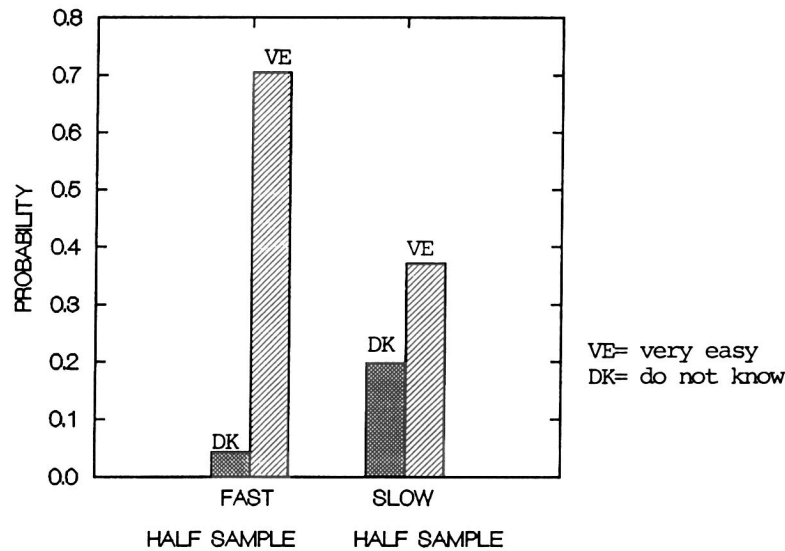


FIG. 3. Metaperception as a function of accessibility: perceived difficulty in judging discussant vote as a function of response time (divided at median). *Source:* Table 4B estimates.

COMPARATIVE PERFORMANCE OF META-ATTITUDES

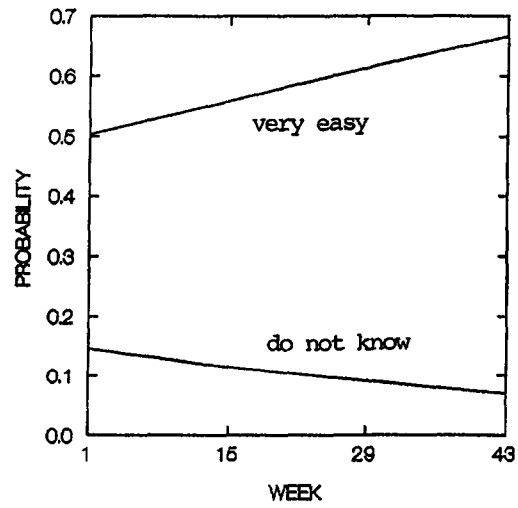
In reformulating the analysis to focus on the respondents' evaluations of their own opinions, several issues are quite naturally transformed. First, we might not expect the learning curve to play an important role—people's perceptions of whether it is difficult to answer a question regarding a single discussant's preference would seem to be less sensitive to their prior experience in answering the same question with respect to other discussants. Second, it is unclear whether mean response time for questions regarding other members of the network should be related to the difficulty people perceive in answering a question regarding any single member of the network. Third, it is also unclear whether the effect on accessibility produced by discussant order translates into a similar discussant order effect on the reported difficulty in perception. Finally, the analysis of Figure 2 is based wholly on situational measures for explanatory variables—the week of the interview, the order in which the respondent provides names to the name generator, the order in which questions are asked. Are these situationally defined explanatory variables able to explain people's evaluations of their own perceptions as well as the response time in providing these opinions? If not, why not?

TABLE 5. Perceived Difficulty of Perception, with First Discussant Deleted: Ordered Probit Models

A. By situational variables					
	Important Matters Discussants		Political Discussants		<i>t</i> for Coefficient Difference
	Coefficient	<i>t</i> -Value	Coefficient	<i>t</i> -Value	
Constant	1.624	6.979	2.257	8.741	1.597
Baseline speed	-0.179	4.906	-0.224	5.801	.778
Discussant order	0.024	.870	-0.036	1.271	1.526
Question order	-0.014	.519	0.035	1.255	.526
Campaign week	0.010	4.224	0.005	2.380	1.374
Threshold (1)	.137	7.449	.157	7.110	
Threshold (2)	.529	16.864	.576	16.038	
Threshold (3)	1.046	27.241	1.148	26.664	
	<i>N</i> = 1617		<i>N</i> = 1556		
	χ^2 = 44		χ^2 = 46		
	DF = 4		DF = 4		
	<i>p</i> = .00		<i>p</i> = .00		
B. By situational and survey measures					
	Important Matters Discussants		Political Discussants		<i>t</i> for Coefficient Difference
	Coefficient	<i>t</i> -Value	Coefficient	<i>t</i> -Value	
Constant	1.060	6.791	1.597	10.412	2.350
Partisan	0.216	7.270	0.188	6.308	.771
Relative	0.440	6.530	0.272	4.105	1.846
Close friend	0.149	2.045	0.178	2.504	.211
Campaign week	0.011	5.199	0.008	3.762	1.147
Pol. Knowl.	-0.068	1.363	-0.199	3.993	1.790
Interact freq.	0.024	2.097	0.011	.906	.836
Pol. Dis. Freq.	-0.329	9.607	-0.322	7.967	.245
Threshold (1)	.177	8.513	0.168	7.550	
Threshold (2)	.613	18.423	0.647	17.801	
Threshold (3)	1.183	29.595	1.248	29.148	
	<i>N</i> = 1796		<i>N</i> = 1745		
	χ^2 = 244		χ^2 = 178		
	DF = 7		DF = 7		
	<i>p</i> = .00		<i>p</i> = .00		

We begin in Table 5A by using an ordered probit model to reevaluate the analyses of Tables 1 and 2 with a new dependent variable, where response time is replaced by the respondent's evaluation of how difficult it was to answer the question. The interaction variable between week of interview and

RAPID RESPONDERS



SLOW RESPONDERS

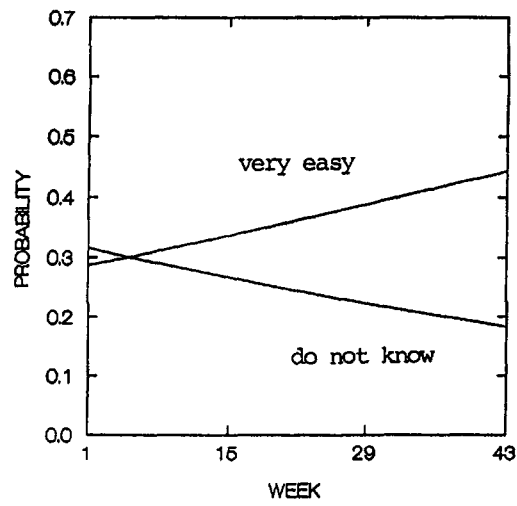


FIG. 4. Perceived difficulty in judging discussant vote as a function of mean response time and campaign week. *Source:* Table 5A estimates, first model.

discussant order generated anemic t -values, and hence it is eliminated from the analysis. As the table shows, neither discussant order nor question order generate a discernible effect, while the mean response time measure and the week of interview both produce substantial t -values for their coefficients. Moreover, the pattern of effects is similar across the two samples—the important matters sample and the political discussant sample.

The magnitudes of several estimated effects from the important matters sample in Table 5A are examined in Figure 4, where we consider the dynamic effect of the campaign separately among “fast responders” and “slow responders.”¹² People who answer quickly with respect to their perceptions of discussants in the remaining network are more likely to report that it is very easy to reach a judgment regarding a particular discussant’s vote preference and they are less likely to report that they do not know. Similarly, as the campaign progresses, respondents are also more likely to say that it is very easy and they are less likely to say that they do not know. Hence, while the analysis does not replicate the rich pattern of results shown in Figure 2, we continue to see important differences across respondents and across time, using similar measures to explain respondents’ evaluations of their own opinions.

Two things are particularly noteworthy regarding the pattern of estimated effects in Table 5(A) and Figure 4. First, the mean response time for the residual network taps an individual-level effect that travels quite well. Some people evidently have more trouble answering questions regarding associates’ political preferences and these difficulties generalize across survey questions with different objects. Second, people’s perceptions are less sensitive to a range of situational variables: discussant order, question order, alternative network name generators. These metaperceptions respond to a reality that is constructed by the respondent and this reality serves to obscure the consequences of these situational factors. In other words, the metaperception is based on what the respondent believes was easy or difficult—a belief that is only partially driven by the accessibility of a perception.

How do the results of Table 5A and Figure 4 compare to a conventional analysis of survey data? That is, do we obtain similar results when we use the answers to survey questions to explain an answer to a survey question? An ordered probit model is employed in Table 5B to regress the respondents’ evaluations of perceptual difficulty on a series of answers to survey questions: the extent to which the main respondent reports being politically partisan, whether the discussant is a relative, whether the discussant is a close friend, the main respondent’s perception of how much the discussant knows about politics, the reported frequency of interaction with the discussant, the reported frequency of political discussion with the discussant, as well as the week of the interview.

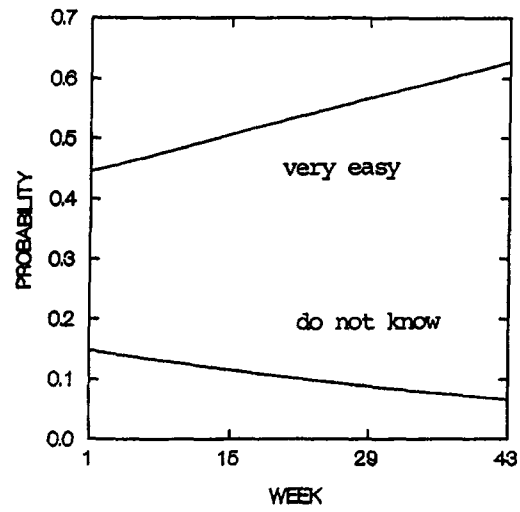
The model is estimated separately, first for the important matters dyads and then for those dyads generated by the political discussion name generator, but the results are once again very similar for both samples. Perhaps the most important difference between the two sets of estimates is that the frequency of social interaction produces a statistically discernible effect for the important matters sample but not for the sample generated with the political discussion name generator. A number of different interaction specifications were examined between the week of interview and the imputed characteristics of the discussants, but none produced a statistically satisfactory *t*-value for the interactive variable's coefficient.

The models do produce a number of discernible (and quite sensible) effects, across main respondents, across discussants, and across time. Highly partisan respondents are more likely to report that it is very easy to judge their discussants' voting preferences, and they are more likely to report that it is very easy to offer judgments regarding the preferences of discussants who are relatives, close friends, knowledgeable about politics, and more frequent political discussants. As before, the main respondents are more likely to report that it is very easy to judge discussants' voting preferences as the campaign progresses.¹³

The magnitudes for two of these effects, based on the important matters sample in Table 5B, are shown in Figure 5. The effect of the campaign dynamic is considered first for the main respondents who report frequent political discussion with a discussant and then for those who report infrequent political discussion.¹⁴ Both factors produce effects that are not inconsiderable, but the effect of frequent political discussion is more dramatic. Indeed, the effect of perceived discussion frequency is more than two times larger than the effect of the campaign dynamic, across the two factors' respective observed ranges.

What conclusions do these comparative analyses allow us to draw? First, these response times and metaperceptions are strongly correlated and both are subject to similar lists of explanatory variables. At the same time, however, they are different measures, and they generate interesting and nontrivial differences in the patterns of effects produced by similar explanatory variables. The response time measures are particularly sensitive to the construction of the survey instrument and hence to a number of survey-situational variables measured without the respondents' answers to survey questions. In contrast, the metaperception is embedded in a reality that is constructed by the respondent and it would appear to be insulated from some of these effects. How do respondents evaluate the strength of their own opinions and perceptions? Certainly one of the pieces of information they might employ is the ease with which they are able to offer the opinion or perception in the first place—the accessibility of the perception in memory.

FREQUENT POLITICAL DISCUSSANT



INFREQUENT POLITICAL DISCUSSANT

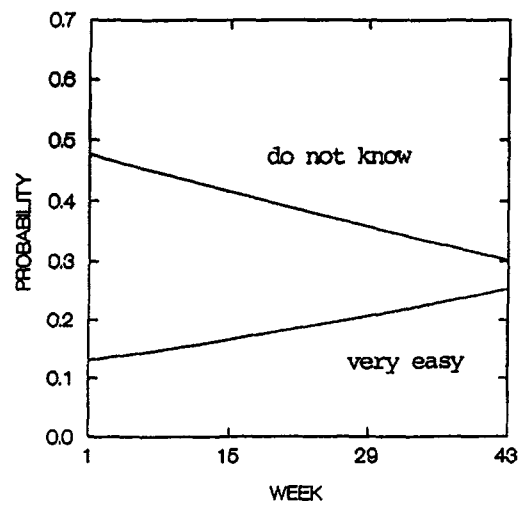


FIG. 5. Perceived difficulty in judging discussant vote as a function of political discussion frequency and campaign week. *Source:* Table 5B estimates, first model.

IMPLICATIONS FOR POLITICAL BEHAVIOR RESEARCH

To what extent is the implementation of response time measures in survey research analogous to the implementation of response time measures in laboratory work? Perhaps more importantly, to what extent is the concept of accessibility as it is measured in this paper comparable to the concept of accessibility as it is measured in the laboratory? The optimistic answer is that survey response time measures are noisier and slower (by some noisy constant) than laboratory response time measures, but both provide an empirical index on the association between two objects in memory. Hence, both are capable of providing an index on the automatic activation of attitudes, perceptions, and opinions.

The less optimistic answer is that survey implementations of response time and accessibility are measuring something quite different from the laboratory. In particular, survey implementations of response time are incapable of capturing the automatic activation effects associated with the use of response time measures in the laboratory and instead they are measuring cognitive processing time on the part of the respondents. Rather than measuring the association in memory between two objects, survey implementations of response time may be measuring the time required to think through and provide a response to a survey question.

How can this problem be addressed and what difference does it make? Future studies might very well be structured to provide direct comparisons of response time measures between survey and laboratory settings. While this study is not designed to provide such a direct comparison, we can provide mean and median response times, adjusted for the noisy constant, to compare with laboratory response times. Numerous trials suggest that it is physically impossible to turn the timer on and off in less than .16 seconds. Hence, we conservatively estimate the mean of our noisy constant to be .2 seconds. The median time of response for the perception of discussant political preference is 1.3 seconds and its mean is 2.2 seconds. Hence, if we correct for the noisy constant, these times become 1.1 seconds and 2 seconds—times that are roughly comparable to a range of response times obtained using various laboratory procedures and designs (Fazio et al., 1982; Fazio and Williams, 1986; Lodge and Taber, forthcoming).

In short, the response times in the survey are not wildly out of line with the response times achieved in the laboratory, and future work should be able to design survey instrumentation to narrow this gap further (Fazio, 1990). But even if the less optimistic interpretation of response time comparability is on target, all may not be lost in terms of laboratory survey comparability. Associative strength may reveal itself in terms of the processing time required to construct answers, which may in turn reveal itself in terms of meta-attitudinal construction. And thus, survey response time measures may lie somewhere

between direct measures of associative strength and meta-attitudinal evaluations of attitude strength.

What are the implications of these and similar comparisons? It has become increasingly clear that the future of political behavior research is tied to work that occurs both in the laboratory and in the survey. Moreover, the boundaries separating the lab and the survey have become increasingly porous and indistinct. Hence, a major agenda in political behavior research is the development of stronger linkages between the measures and methodologies used in both domains and this paper is one modest part of that larger agenda.

SUMMARY AND CONCLUSION

The accessibility of our respondents' perceptions regarding the political preferences of their associates depends on a range of individual and contextual factors. Strong partisans are more likely to hold accessible perceptions, perceptions regarding frequent political discussants are likely to be more accessible, and the election campaign produces more accessible perceptions as its dynamic logic unfolds. Moreover, the accessibility of these perceptions depends on the form and structure of the survey questions used to collect social network information. When a political discussion name generator is employed, the accessibility of perceptions depends on the order in which discussants are identified. In contrast, the order in which discussants are identified is unrelated to accessibility when an important matters name generator is employed. Thus, the order of identification is related to the political significance of the discussant for the political discussion name generator but not for the important matters name generator. Different name generators produce different orderings, and hence a peripheral member of a network defined in terms of important matters may, in fact, be a crucial member of a network defined in terms of political discussion (Burt, 1986).

Although accessibility is an important predictor of the individual respondent's judgment regarding the difficulty of forming a perception pertaining to a discussant's preference, the meta-attitudinal and response time measures perform quite differently in analyses. When individuals make judgments about their own perceptions (or opinions or attitudes), they are likely to employ the accessibility of the perception in reaching the judgment, but they are likely to employ other evidence as well. For example, if Joe is my close friend, shouldn't I find it easier to infer his vote preference? If he is only a passing acquaintance, shouldn't I expect to find it more difficult? The reliability of all such inferential devices is open to question (Tversky and Kahneman, 1974), but the important point for present purposes is that a range of factors beyond

accessibility might generate important consequences for the meta-attitudinal judgment (Bassili, 1996).

This paper has addressed a theory and methodology for examining the importance of political opinions, attitudes, and perceptions. The central theoretical insight is derived from a literature in cognition research: The strength of association between two objects in memory is centrally related to the accessibility of judgments regarding the relationship between the objects. The central methodological insight is that accessibility can be measured in terms of response time: People with accessible opinions, attitudes, and perceptions answer questions more quickly. Does accessibility provide a useful tool for political analysis? Just as important, is it possible to implement response time measures within the context of a conventional CATI survey?

As a theoretical device, accessibility provides leverage on a number of problems that confront the analysis of democratic politics. In particular, accessibility offers fresh insight on the study of political uncertainty and ambiguity. While decision making under conditions of uncertainty has been an important topic in the study of social cognition (Kahneman and Tversky, 1973; Tversky and Kahneman, 1974), it has not fully penetrated the study of political communication among and between citizens. Part of this failure to address the role of ambiguity in politics is due to the lack of a conceptual apparatus, and accessibility helps to fill this void. That is, the accessibility of a perception regarding the messenger might tell us a great deal not only about the message and the messenger but also about the process of communication.

But is it possible to utilize the measurement advantage attached to the concept of accessibility by timing the onset of responses to survey questions over the telephone? The answer to this question is crucial because the conceptual power of accessibility is most fully realized in its measurement. At first consideration, one might wonder—indeed, one might be understandably skeptical. Anyone who has ever conducted an interview knows that the control achieved over the interview setting is far less than the control achieved in the laboratory setting. And thus the inherent problem of noisy measurement can only be magnified in moving from the laboratory to the CATI interview.

At the same time, however, survey analysts are highly accustomed to noisy measures and small coefficients of determination. The ultimate test of the utility of these measures is their empirical performance, and the analyses of this paper, building on the work of Bassili (1993, 1995a, 1995b, 1996) and Sniderman and Carmines (1997), support their potential utility as measurement devices for students of political behavior.

Acknowledgments. This research was supported by a grant from the Political Science Program of the National Science Foundation.

NOTES

1. Bargh et al. (1992) question the role of accessibility in mediating individuals' evaluative responses to attitude objects. Although they argue for a more widespread automaticity in evaluative responses, they also admit that associative strength and accessibility are relevant to nonattitudes. For a critique of the Bargh et al. argument, see Fazio (1993).
2. Fazio (1995) summarizes the evidence regarding the enhancement of accessibility within two categories: rehearsal and perceived diagnosticity. For an alternative analysis, see Higgins and King (1981).
3. The main respondent sample was drawn from lists of registered voters at both study sites. The response rate, calculated as the ratio of completions to the sum of completions, refusals, partials, and persistently unavailable respondents, was 58%. Including respondents in the base who never answered the phone after repeated callbacks yields a response rate of 53%. The ratio of completions to the sum of completions, refusals, and partials is 64%.
4. Our procedures differ somewhat from those of Bassili (1993), in which the timing is coded as missing if the respondent answers before the interviewer finishes the question. Bassili also codes a timing as missing when the respondent asks for clarification regarding a question.
5. After adopting these procedures, a few activated timings showed times of 0, evidently as a consequence of interviewers skipping back and forth through the interview without recording times. Because it is physically impossible to record a time this short, we set such timings to missing.
6. Prior to the end of the nominating season, defined as the end of June, we asked respondents: "As things currently stand, do you think [name] will vote for the Democratic candidate, the Republican candidate, an independent candidate, or do you think [name] probably won't vote?" At the beginning of July, we began asking: "As things currently stand, do you think [name] will vote for Bill Clinton, Bob Dole, some other candidate, or do you think [she/he] probably won't vote?" After the election we switched this question to the past tense.
7. In an analytic context such as this, it is possible to conceive the dependent behavior as a survival time, and hence to replace the least squares model with a maximum likelihood survival model. A parametric survival model based on the exponential distribution produces results that parallel those shown here.
8. In this and later analyses, we considered the possibility that the effect of campaign week might be a spurious by-product of a preelection versus postelection effect on accessibility. But when a dummy variable is included for whether interviews occurred before or after the election, it yields a small coefficient and an anemic *t*-value without altering the effect of campaign week. The effect of week is also maintained when we introduce a second dummy variable for the period beginning at the end of the primary season and extending through the end of the general election campaign. This dummy variable also produces a weak coefficient and an anemic *t*-value.
9. Indeed, the final column of *t*-values shows that the difference between the coefficient estimates obtained in the two samples is statistically discernible in every case. In this and later models, the final column of *t*-values is obtained by estimating a single model for all respondents with a control for important matters discussants versus political discussants, as well as interactions between this control and all the explanatory variables.
10. The baseline speed of response is held constant at 5 and the question order is held constant at 3.1.
11. The overall pattern of relationships in Figure 2 is driven primarily by the strong effect of campaign week on the response latency for the perception of the fifth discussant. We can reconsider the second model of Table 2A with separate regressions of the response latency on campaign week for each value of discussant order (with controls for the baseline speed of

response and question order). This produces coefficients for campaign week that are positive and statistically indiscernible for the second named discussant (coefficient = 1.17; t -value = 1.68), negative and statistically indiscernible for both the third discussant (coefficient = $-.85$; t -value = .97) and the fourth discussant (coefficient = $-.36$; t -value = .34), and strongly negative and statistically discernible for the fifth discussant (coefficient = -4.84 ; t -value = 2.86).

12. Because the ordered probit is a nonlinear model, the coefficient estimates do not provide a direct measure of the magnitude of effect due to an explanatory variable. Rather, Figure 4 provides estimates of effects that are obtained by varying one explanatory variable across its range while other explanatory variables are held constant at mean or typical values. The range for the baseline speed of response is set at two standard deviations above the sample mean for the slow responders and two standard deviations below the sample mean for the fast responders, where the mean is 5 and the standard deviation is .8. Discussant order and question order are held constant at 3.
13. In order to check whether we are producing biased estimates on account of our pooling procedure, we estimate separate ordered probit regressions for the second through fifth discussants, combining the important matters and political discussants. The results closely parallel those reported in Table 5B.
14. In constructing Figure 5, the frequent political discussants are defined as 1 (often) and the infrequent as 4 (never). Partisanship of the main respondent is held constant at 2 (weak partisan), perceived political knowledge of the discussant is held constant at 2 (average), and the reported frequency of interaction is held constant at 3 days per week. The relationship of the discussant to the respondent is held constant at nonrelative and not a close friend.

REFERENCES

- Abelson, Robert P. (1995). Attitude extremity. In Richard E. Petty and John A. Krosnick (eds.), *Attitude Strength: Antecedents and Consequences* (pp. 25–42). Mahwah, NJ: Lawrence Erlbaum Associates.
- Achen, Christopher H. (1975). Mass political attitudes and the survey response. *American Political Science Review* 69: 1218–1231.
- Bargh, John A., Wendy J. Lombardi, and E. Tory Higgins (1988). Automaticity of chronically accessible constructs in person X situation effects on person perception: It's just a matter of time. *Journal of Personality and Social Psychology* 55: 599–605.
- Bargh, John A., Shelly Chaiken, Rajen Govender, and Felicia Pratto (1992). The generality of the automatic attitude activation effect. *Journal of Personality and Social Psychology* 62: 893–912.
- Bassili, John N. (1993). Response latency versus certainty as indexes of the strength of voting intentions in a CATI survey. *Public Opinion Quarterly* 57: 54–61.
- Bassili, John N. (1995a). Response latency and the accessibility of voting intentions: What contributes to accessibility and how it affects vote choice. *Personality and Social Psychology Bulletin* 21 (July): 686–695.
- Bassili, John N. (1995b). On the psychological reality of party identification: Evidence from the accessibility of voting intentions and of partisan feelings. *Political Behavior* 17: 339–358.
- Bassili, John N. (1996). Meta-judgmental versus operative indexes of psychological attributes: The case of measures of attitude strength. *Journal of Personality and Social Psychology* 71: 637–653.

- Berelson, Bernard R., Paul F. Lazarsfeld, and William N. McPhee (1954). *Voting: A Study of Opinion Formation in a Presidential Election*. Chicago: University of Chicago Press.
- Burt, Ronald S. (1986). A note on sociometric order in the general social survey network data. *Social Networks* 8: 149–174.
- Converse, Philip E. (1964). The nature of belief systems in mass publics. In David E. Apter (ed.), *Ideology and Discontent* (pp. 206–261). New York: Free Press.
- Fazio, Russell H. (1990a). A practical guide to the use of response latency in social psychological research. In Clyde Hendrick and Margaret S. Clark (eds.), *Research Methods in Personality and Social Psychology* (pp. 74–97). Newbury Park, CA: Sage Publications.
- Fazio, Russell H. (1990b). Multiple processes by which attitudes guide behavior: The MODE model as an integrative framework. In M. P. Zanna (ed.), *Advances in Experimental Social Psychology*, vol. 23 (pp. 75–110). New York: Academic Press.
- Fazio, Russell H. (1995). Attitudes as object-evaluation associations: Determinants, consequences, and correlates of attitude accessibility. In Richard E. Petty and Jon A. Krosnick (eds.), *Attitude Strength: Antecedents and Consequences* (pp. 247–282). Mahwah, NJ: Lawrence Erlbaum Associates.
- Fazio, Russell H. 1993. "Variability in the Likelihood of Automatic Attitude Activation: Data Reanalysis and Commentary on Bargh, Chaiken, Gvender, and Pratto (1992)," *Journal of Personality and Social Psychology* 64: 753–758.
- Fazio, Russell H. and Carol J. Williams. 1986. "Attitude Accessibility as a Moderator of the Attitude-Perception and Attitude-Behavior Relations: An Investigation of the 1984 Presidential Election," *Journal of Personality and Social Psychology* 51: 505–514.
- Fazio, Russell H., Jeaw-Mei Chen, Elizabeth C. McDonel, and Steven J. Sherman (1982). Attitude accessibility, attitude-behavior consistency, and the strength of the object-evaluation association. *Journal of Experimental and Social Psychology* 18: 339–357.
- Fazio, Russell H., M. C. Powell, and Carol J. Williams (1989). The role of attitude accessibility in the attitude-to-behavior process. *Journal of Consumer Research* 16: 280–288.
- Granovetter, Mark (1973). The strength of weak ties. *American Journal of Sociology* 78: 1360–1380.
- Higgins, E. Tory, and John A. Bargh (1987). Social cognition and social perception. *Annual Review of Psychology* 38: 369–425.
- Higgins, E. Tory, and Gillian King (1981). Accessibility of social constructs: Information-processing consequences of individual and contextual variability. In Nancy Cantor and John F. Kihlstrom (eds.), *Personality, Cognition, and Social Interaction* (pp. 69–121). Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Huckfeldt, Robert, and John Sprague (1995). *Citizens, Politics, and Social Communication: Information and Influence in an Election Campaign*. New York: Cambridge University Press.
- Huckfeldt, Robert, Paul A. Beck, Russell J. Dalton, and Jeffrey Levine (1995). Political environments, cohesive social groups, and the communication of public opinion. *American Journal of Political Science* 39 (November): 1025–1054.
- Huckfeldt, Robert, Paul A. Beck, Russell J. Dalton, Jeffrey Levine, and William Morgan, (forthcoming). Ambiguity, distorted messages, and nested environmental effects on political communication. *Journal of Politics*.
- Kahneman, Daniel, and Amos Tversky (1973). On the psychology of prediction. *Psychological Review* 80: 237–251.

- Latane, Bibb (1981). The psychology of social impact. *American Psychologist* 36 (April): 343–356.
- Lazarsfeld, Paul, Bernard Berelson, and Hazel Gaudet (1944). *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. New York: Columbia University Press.
- Lodge, Milton, and Charles Taber (forthcoming). Three steps toward a theory of motivated political reasoning. In Anthony Lupia, Matthew McCubbins, and Samuel Popkin (eds.), *Elements of Political Reason: Understanding and Expanding the Limits of Rationality*. New York: Cambridge University Press.
- Sniderman, Paul M., and Edward G. Carmines (1997). *Reaching Beyond Race*. Cambridge, MA: Harvard University Press.
- Sniderman, Paul M., Richard A. Brody, and Philip E. Tetlock (1991). *Reasoning and Choice: Explorations in Political Psychology*. New York: Cambridge University Press.
- Tversky, Amos, and Daniel Kahneman (1974). Judgment under uncertainty: Heuristics and biases. *Science* 185: 1124–1131.
- Wyer, Robert S., Jr., and Thomas K. Srull (1981). Category accessibility: Some theoretical and empirical issues concerning the processing of social stimulus information. In E. Tory Higgins, C. Peter Herman, and Mark P. Zanna (eds.), *Social Cognition: The Ontario Symposium* (pp. 161–197). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Zaller, John R. (1992). *The Nature and Origins of Mass Opinion*. New York: Cambridge University Press.
- Zaller, John R., and Stanley Feldman (1992). A simple model of the survey response: Answering questions versus revealing preferences. *American Journal of Political Science* 36 (August): 579–616.