Political Expertise, Shared Biases, and Patterns of Political Communication

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Abstract

This paper reports on an experiment designed to assess the manner in which people obtain information regarding political choices. The experiment is undertaken in the context of cost conscious, goal oriented subjects who must obtain information on alternative candidates in order to realize their goals. This information comes at a cost, and subjects also have the opportunity to obtain information for free from other subjects. The experimental design provides an opportunity to address a range of questions. How important is individually purchased information to the subjects' assessments of the candidates? What are the criteria imposed by subjects in their search for other subjects who will be useful information providers? In particular, how important are levels of political expertise and shared preferences in the selection of other individual subjects as sources of information?

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In order for democracy to thrive, citizens must be sufficiently informed to play a meaningful role in the political process. A problem arises because information comes at a cost that is typically nontrivial and varies quite dramatically across individuals. For some citizens, information is effectively cost free – some individuals even place intrinsic value on political information as an end in itself (Fiorina 1990). For other individuals, political information is not intrinsically rewarding, and the high cost of becoming informed swamps any benefit an individual might realistically expect to receive from its acquisition.

The cost of information not only varies across individuals, but also across information sources. Reading newspaper accounts of complex public policy debates is an onerous task for many individuals (Neuman, Just and Crigler 1992). In contrast, short informal conversations with friends and associates regarding the same issues and concerns might yield commensurate benefits at a greatly reduced cost. Hence, learning about politics from others is one potential way to economize on the costs of becoming informed, particularly among those individuals who would otherwise pay a heavy price to learn about politics on their own.

The availability of alternative means for obtaining information would appear to provide good news for friends of democratic politics. Some individuals have low information costs – some even enjoy becoming informed – and these are the individuals who are likely to become the primary sources of information for others. Other individuals rely on these information gladiators, thereby obtaining their information indirectly from these direct consumers. Such a model of electorates, as complex webs of interdependent citizens, would thus appear to generate several benefits. It restores confidence in democratic electorates, and it also helps to explain the widely recognized fact that, while so many individual citizens often appear poorly informed, democratic electorates often perform in entirely sensible and explicable ways.

At the same time, a central issue regarding the quality of the information obtained through political communication with other citizens revolves around the criteria for selecting reliable sources of guidance. Downs (1957) argued, for example, that people should select politically expert informants who share their own political biases. In contrast, Calvert (1985) argued that individuals might profitably obtain information from individuals holding divergent preferences. These relationships among information costs, expertise, and shared biases generate a number of questions. How important are individually based information costs as predictors of information acquisition and expertise? How important is socially communicated information as a means to bypass these costs? How important are expertise and shared preferences as criteria that guide individuals in their search for social sources of information? Can socially communicated information be trusted if it is taken from individuals with divergent preferences?

We address these questions by constructing an experimental platform for the analysis. The experimental design that we implement varies information costs across individuals, as well as making it possible for individuals to obtain information from one another. The experiment provides incentives for individuals to become informed and make correct choices based on the information they have obtained, but these incentives must be assessed relative to information costs. In this way, we intend to confront our experimental subjects with the same challenges and dilemmas faced by citizens in democratic politics.

Information Costs and Democratic Efficiency

Downs (1957) observed that self-interested individuals will only vote if participation costs are less than benefits, where the benefits are weighted by the probability that a single vote will be decisive to the outcome of the election. This argument produced a flood of controversy, as well as significant progress in the study of voting and elections. Some found it offensive to argue that narrowly defined self interest would motivate the choices of citizens, while others found it encouraging to argue that democratic citizens are, indeed, rational and purposeful in making choices.

Perhaps the more compelling part of the controversy revolved around the explanatory implications of the assertion. If Downs is correct, it would seldom make sense to vote, yet large proportions of eligible democratic electorates do vote and those who vote tend to be the best educated individuals – those individuals who should best be able to engage in the underlying rational calculation regarding the expected benefit. Our analysis focuses on a two-fold solution to this puzzle.

The first part of the solution lies in the fact that information costs, which undoubtedly constitute the lion's share of participation costs for most citizens, are highly variable across individuals. In particular, as Wolfinger and Rosenstone (1980) suggest, information costs are lower among those individuals for whom the acquisition and processing of information is easier – typically individuals with higher levels of education. And as Fiorina (1990) argues, not only are information costs highly variable across individuals, but the costs are actually negative for many individuals. That is, many individuals may find information about politics to be rewarding. They may follow their favorite politicians in the same way that other individuals follow their favorite movie star or read about the Democrats and Republicans with the enthusiasm of a baseball fan reading about the Giants and Dodgers. For these people, staying informed thus becomes a self-reinforcing behavior.

The second part of the solution is that, in the context of high information costs, an effective way to cut costs is to obtain information from other individuals. As Downs argues (1957), it is quite reasonable for individuals to obtain information on the cheap, from politically expert individuals holding compatible political preferences. Hence, in the spirit of Berelson et al. (1954), we might expect to see a division of labor in the communication of political information. Individuals with high information costs might rely on individuals with minimal (or even negative) information costs.

This explanation has several virtues, and one of the most important is its implications for a puzzling difference in micro and macro studies of citizenship capacity. A recurrent theme in micro-level analyses is that relatively few individuals demonstrate high levels of knowledge, sophistication, and engagement (Converse 1964; delli Carpini and Keeter 1996). Conversely, macro studies typically point toward aggregate patterns and distributions of public opinion that are entirely sensible, seeming to indicate a much higher level of competence in the electorate as a whole (Page and Shapiro 1992; Erikson, MacKuen, and Stimson 2002). One solution to this puzzle is that aggregates are, in fact, guided by those individuals who are most engaged and most informed (Stimson 2004).

Civic capacity in the aggregate benefits from the diffusion of expert opinion within and throughout the micro-environments of political communication if individuals seek out politically expert individuals as political information sources. In order for this to occur, these individuals must be capable of recognizing experts. Empirical results based on snowball surveys of naturally occurring communication networks show that individuals do communicate about politics more frequently with other individuals whom they judge to be politically knowledgeable.

Just as important, their perceptions of expertise in others are driven primarily by the objectively verified expertise of the potential informant (Huckfeldt 2001).

At the same time, to the extent that individuals emphasize the importance of informants with politically compatible viewpoints, they are less likely to locate the most informed people. Hence, a central issue in this paper's analysis revolves around the potential role of divergent political preferences in inhibiting the flow of political information through political communication networks. This problem – the value of information taken from individuals with divergent political preferences – has been identified as the problem of "cheap talk." How can the receiver of an informative message know whether the sender of the message is being truthful? If individuals share preferences, the motive for sending false information disappears (Lupia and McCubbins 1998). At the opposite extreme, if individuals hold preferences that are diametrically opposed, communicated information becomes highly suspect. At more intermediate levels, Farrell and Rabin (1996) argue that "even if there is some limited incentive to lie, cheap talk can convey some meaning in equilibrium" (107).

The implications for democratic politics and political communication are quite profound. To the extent that divergent perspectives inhibit the diffusion of information, individuals are both handicapped in their ability to take advantage of political expertise among associates with different preferences, and more likely to receive truncated streams of incoming information that fail to represent the divergent viewpoints that exist in the larger population. Alternatively, to the extent that individuals are politically indiscriminate in the choice of information sources, they run the risk of being politically misled and misinformed. Hence, the role of "cheap talk" is quite directly related to the capacity of aggregate populations to become politically informed.

Experimental Design

Our analysis is based on a series of small group experiments, each of which involves subjects who communicate with one another via networked computers. The experimental setting involves two candidates, each of whom has a fixed position in a one-dimensional policy space. The goal of the experimental subjects is to cast a vote for the candidate who most closely matches their own predetermined position on the same dimension, and subjects are rewarded with a cash incentive if the candidate closest to them wins the election. Information comes to the subjects in three different forms: publicly available information that is free but of low quality; privately acquired information that may cost more but is of higher quality; and socially communicated information taken from other individuals that is free.

We conducted 17 sessions of these computerized small group experiments, with seven subjects participating in each session. The experimental design builds on a spatial voting model in which voters and candidates have preferences on a single-dimensional policy space, voters cast their votes in an election, and the voters' payoffs depend on which of the two candidates win the election. The exact positions of the candidates were not known to the voters, creating a need to obtain information. Subjects were paid a show-up fee of five dollars and given an additional opportunity to earn more money based on the decisions they and other subjects make during the experiment. In 15 of the 17 sessions, the baseline voting game was repeated for 15 rounds. The other two sessions lasted 13 rounds.[1] The experimental program was written using z-Tree (Fischbacher 2007). Subjects were paid volunteers recruited primarily from political science

[1] Our target was to have 15 rounds, but in two of the sessions we were not able to complete 15 rounds within the announced time limit of 60 minutes.

classes at UC Davis.[2] The typical range of total payoffs was between 15 and 25 dollars. A session lasted about 60 minutes.

Underlying Spatial Voting Model: Candidates and voters have preferences which are represented as integer numbers from 1 to 7 on a one-dimensional policy space. At the beginning of a session each subject was assigned a preference such that there is one voter with ideal point 1, one voter with ideal point 2, one voter with ideal point 3, etc. Thus, the seven subjects are evenly distributed on the scale. Once assigned, a subject's preference remained unchanged for the duration of the experiment. We will refer to the subjects as voter 1, voter 2, etc., where voter j means the subject's preference is j.

The two candidates, called candidate A and candidate B, were not real human subjects, but computer-generated positions. Candidate A's position was randomly drawn in each period from a set $\{1,2,\ldots, 6\}$. Candidate B's position was also randomly, and independently from candidate A's position, drawn from a set $\{2,3,\ldots,7\}$. The candidates' positions also took only integer values. Subjects were told that the candidates were computer-generated positions as well as how their positions would be drawn in each period, but they did not know the exact positions of the candidates. In each round each subject cast a vote for either candidate A or candidate B. Voting was costless and abstention was not allowed. Subjects had a monetary incentive to vote for the candidate whose position is closer to her than the other candidate's.

At the beginning of each round of voting, subjects were endowed with 100 ECUs or Experimental Currency Units. Subjects were allowed to use up to 50 ECUs out of the endowed 100 ECUs to purchase information on the candidates' positions. (Information purchase and exchange will be explained in detail later.) After voting, if the winning candidate's position was

[2] Subjects received a five dollar show up fee. Subjects from Political Science classes also received extra credit for participating.

closer to a voter than the losing candidate's, the voter earned 50 extra ECUs. If the winning candidate's position was farther away from the voter's position than the losing candidate, 50 ECUs were subtracted from the voter's account. If the two candidates were equally distanced from the voter, then the voter neither gained nor lost ECUs due to the outcome of an election.[3] Theoretically, a voter could earn 150 ECUs maximum in a round: the initial 100 ECUs endowment plus 50 more ECUs if his favorite candidate wins. This, of course, is when the voter does not spend any ECUs to purchase the information on the candidates' true positions. On the other hand, the minimum possible payoff for a subject in a period is 0 ECUs; this happens when a voter spends 50 ECUs on purchasing information and her favorite candidate loses the election. At the end of the experiment, the subjects were paid in cash the show-up fee plus their total earnings during the experiment.[4]

Obtaining information on candidates' positions: Though the true positions of the two candidates were unknown, the voters have three potential sources of information on which to base their votes. First, the fact that the two candidates' positions were drawn from different intervals could potentially help a voter in the absence of other forms of information. This fact should be more helpful to voters with more extreme preferences (i.e., voter 1 and voter 7) than to those in the middle (voter 4). For example, voter 7, in the absence of any other information, should always vote for candidate B.[5]

Second, voters were allowed to spend up to 50 ECU's to obtain additional information on the candidates' true positions. There were three types of voters in terms of the costs they had to

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[3] Subjects were paid based on their actual distance from the candidates, not how they voted. So, for example, if candidate A was closer to subject *j*, but the subject voted for B, subject *j* was paid based on whether or not candidate A won.

[4] The conversion rate between ECUs and dollars was 100 ECUs equals a U.S. dollar.

[5] There are 36 possible combinations of the two candidates' positions and the joint distribution is uniform; in 21 out of these 36 possibilities, candidate B would be closer to voter 7 than candidate A.

pay to obtain these additional pieces of information. In each session, two voters paid zero costs to obtain information (these are referred to as low information cost voters), two paid 5 ECUs per piece of information (medium information cost voters) and three paid 25 ECUs per piece of information (high information cost voters). Once assigned, the information cost for a subject remained unchanged for the entire experiment. Each voter was allowed to purchase up to 4 pieces of information, but because of the 50 ECU limit on information purchasing, the high information cost voters were able to purchase only 2 pieces of information. When a voter purchases a piece of information, it arrived in the form (a, b) where a is an estimate of A's true position and b is an estimate of B's true position. Let α and β denote the true positions of candidates A and B in a round. Then the signals a and b are randomly and independently drawn from a uniform interval $[\alpha - 3, \alpha +3]$ and $[\beta-3, \beta +3]$, respectively. The signals took only integer values. Subjects were told how the signals were drawn as well as the fact that the signals on average reflect the true positions of the candidates.

Third and finally, each subject has an opportunity to request information from one other subject. Before they make this request, all subjects are shown the preferences of each subject, as well as the number of pieces of information each subject purchased. After all subjects have made their requests, the subjects are told if anyone requested information from them. If any requests have been made, the policy preferences of the requestors are revealed. The subjects are not required to comply with the information request, and they are not required to provide truthful information. When there are multiple requestors, a subject is not required to provide the same information to all of the requestors. Hence, they may decide to provide no information, to provide accurate information, or to provide misleading information. When a subject chooses to accept the information request from another subject, the information provider sends a message in the form of (*a*, *b*) where *a* is meant to be the provider's estimate of the true position of candidate A and *b* is meant to be the provider's estimate of the true position of candidate B.

In summary, the following steps occur during the experiment. At the beginning of the experiment, subjects were assigned their respective, mutually exclusive, integer preferences on a one-dimensional policy space from 1 to 7. Information costs are randomly assigned to subjects such that two subjects have low cost, two have medium cost, and three have high cost. Once assigned, these positions and information costs remained unchanged for each subject for the duration of the experiment. The candidate positions are set between 1 and 7, inclusively, and subjects are accurately informed that Candidate A's position lies between 1 and 6, while Candidate B's position is set between 2 and 7. Then in each of the approximately 15 rounds per session, the following steps occur:

1. The two candidates' positions are drawn from the respective intervals.

2. The subjects are given an opportunity to purchase information at the assigned information cost.

3. After the subjects have received the information, they are asked to provide an assessment of where they believe each candidate's position to be. This information is not communicated to other subjects.

4. After being shown all the subjects' positions on the scale, as well as the amount of information each has purchased, they are allowed to request information from one other subject. The subject need not comply with the request, and they need not provide accurate information.

5. After receiving information from one another, the subjects are provided a summary of the information they have received, and they vote for one of the candidates.

6. The outcome of the election is revealed to the voters. If the winning candidate's position is closer to a voter than the losing candidate's, the voter receives additional 50 ECUs as a reward. If the losing candidate's position is closer to a voter than the winning candidate's, 50 ECUs are taken off from the voter's account. The subjects are informed of their net earnings, which are accumulated across rounds.

7. The candidate positions are reset, and subjects proceed to the next round.

Research Questions

The value of the public and privately-purchased information can be conceived in terms of its variance around an unbiased central tendency. Each bit of individually purchased information is drawn from uniform distributions with midpoints centered at the candidates' true position and boundaries that are symmetrical to the midpoints. This means that individuals must make judgments regarding candidates based on multiple pieces of unbiased but noisy information. Hence we might expect that, as subjects accumulate more information, they would arrive at a summary judgment that converges on the candidates' true positions.

In contrast, when individuals rely on the judgments of other subjects, they are not only depending on the volume of information that serves as the basis for *these* subjects' judgments, but also on the ability and willingness of the source to compile and communicate this information in an unbiased manner. To the extent that individuals inject bias into the information they communicate, the quality of the information is potentially degraded.

One might expect that some subjects will be relatively insulated from these problems. To the extent that they are able to acquire information at a low cost, they are also equipped to acquire more information, and thus to overcome the inherent noisiness that accompanies information in a stochastic environment. Alternatively, to the extent that information is costly for individuals, we would expect them to be more reliant on freely obtained information from others. In these ways, the basic structure of the experiment provides a framework within which to address the following questions.

First, how important is the individual cost of information acquisition, both for the purchase of information, and for the strategic position of individuals within patterns of communication? Second, do subjects choose information sources on the basis of political expertise – other individuals who have purchased more information? Or, in an effort to avoid the introduction of biases that degrade the value of the information, do they select information sources that hold preferences that are similar to their own? Finally, are the votes of subjects influenced by information taken from other subjects, and is influence compromised by the presence of divergent political preferences?

We address these questions based on data obtained in experimental sessions that included 105 subjects who participated in sessions that involved 15 rounds, and an additional 14 subjects who participated in sessions that involved 13 rounds, for a total of 1757 subject-rounds. Hence, in the analyses that follow, we employ a clustering correction to account for multiple observations on the same subjects (Rogers 1993).

The Cost and Value of Individually Obtained Information

As Table 1 shows, the randomly assigned information costs make a substantial difference in the amount of information purchased by individual subjects. More than seventy percent of those without information costs request the maximum amount of information, but only 20.5 percent of those who pay 5 cents request the maximum. Those who pay 25 cents are only eligible to request 2 pieces of information, but 36.2 percent do not request any at all, and only 29.5 percent request two pieces of information. Hence, the mean information purchase ranges from 3.4 to 2.4 to .9 pieces across the three levels of ascending information costs. In short, within the constraints of the experiment, subjects economize in purchasing information, and hence the amount of information they purchase is a direct function of cost.

Is this information helpful to the respondents in forming judgments regarding the locations of the candidates? We address this question on the basis of the subject's initial judgments regarding the candidates' positions. Recall that they provide these judgments ***after*** obtaining the individually purchased information but ***prior*** to obtaining the information communicated by another subject. We treat these judgments as the criterion variables in a linear regression, where the explanatory variables are the true position of the candidate, the amount of information purchased by the respondent, and a variable formed as the multiplicative product of these two variables.

Table 2 shows that the subjects' priors regarding the candidates' positions are positively related to the candidates' true positions. The strength of the relationship is, however, contingent on the amount of information purchased by the subject. In terms of Candidate A, the slope of the line is .24 for subjects who did not purchase any information. This is a rather meager effect – a one unit increase or decrease in the candidate's position has only a .24 unit increase in the respondent's perception. In contrast, among those who purchased four pieces of information, the slope is .84, a rather substantial increase and a nearly one-to-one relationship between the true and perceived positions.

How can we explain the positive slope for individuals who did not purchase any information? Recall that public information is provided to everyone – the subjects are told that Candidate A lies between 1 and 6, while Candidate B lies between 2 and 7. A reasonable expectation based on that information would be that Candidate A's position is slightly below the midpoint and B's position is slightly above the midpoint. This minimal information provides even the informationally impoverished individual with some leverage in rendering a judgment. More importantly for our purposes, lower information costs yield higher levels of information consumption and more accurate judgments regarding candidate location.

Information and Imputed Expertise

The important question that arises in this context is, who qualifies as an expert? Democratic politics and the capacity of electorates are more likely to be enhanced by political communication among and between citizens if individuals communicate with politically expert associates.[6] The definition of an expert is particularly complicated in the context of political communication, however, due to the inherently partisan nature of politics and political issues. Differences of opinion and disagreement lie at the essence of democratic politics, and the management of disagreement hence plays an important role in the structure of political communication networks and the conveyance of political information through these networks.

The Downsian (1957) formulation suggests that rational individuals will seek out information from knowledgeable informants who share their political biases. Moreover, within the context of this experiment and from the vantage point of cheap talk, one might expect that individuals would dismiss information taken from informants with divergent perspectives (Johnson 1993). After all, the subjects have incentives to make sure that the candidates closest to them win the election and, thus, it would be reasonable to expect that the reliability of an informant is contingent on the positions of the informants relative to the recipients of information.

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[6] This is not intended to minimize the educative functions of communication per se. Even when individuals communicate with people who know very little about politics, they are forced to consider, evaluate, and make relative assessments regarding relevant issues and topics. These cognitive processes, in and of themselves, are likely to produce more complex and thoughtful assessments regarding politics and political affairs.

We examine this problem in Table 3, where we consider the number of requests for information received by an individual subject from each of the other six subjects in a particular round. This criterion variable is regressed on the number of pieces of information purchased by the subject, as well as by the extremity of the subject on the scale. Extremity is measured as the number of positions lying between the subject's preference and the middle point on the scale (e.g., the absolute value of the preference minus four: $|j\text{-}4|$). We include extremity as an explanatory variable because a subject who holds an extreme preference will be, on average, farther removed from the positions held by the other subjects.

As the regression shows, subjects who purchase more information are likely to receive more information requests from other subjects. Indeed, the effect is quite dramatic – for every piece of information a subject purchases, she can expect to receive .45 requests, with a t-value of 14. Quite clearly, the subjects look to the high information consumers as excellent sources of expert advice. Subjects who hold more extreme preferences are less likely to receive information requests, but this effect is not nearly as pronounced. The model predicts that an individual with an extreme preference, either 1 or 7, will receive .21 fewer requests for information than a subject with a preference at the midpoint of 4.

Focusing on Dyads in Context

An alternative formulation of the problem points toward the distance separating the positions of two subjects, rather than the extremity of a potential informant's opinion, as the crucial consideration. We evaluate this argument with the logit model in Part A of Table 4, based on dyad data taken from the study. In this analysis, each dyad in every round is treated as an observation, thereby yielding an n-size of 10,542. We enter a clustering correction that takes account of multiple observations on the subjects requesting information, yielding 119 clusters (subjects defined as "egos"). The model in this table assesses whether or not one subject asks for information from another subject (the "alter"), based on the number of pieces of information purchased by the potential informant, as well as by the distance between the preferences of the two subjects in the dyad.

While both factors produce statistically discernible effects, the predicted probabilities in Part B of Table 4 show that amount of information purchased by the potential informant is the most important explanatory factor. One subject is more likely to request information from another subject to the extent that the potential informant has purchased more information. The model predicts that, if two individuals hold adjacent positions, the probability of requesting information from an individual who has not purchased any information is .05, but this probability increases to .38 if an individual has purchased four pieces of information. In contrast, if a prospective informant has purchased four pieces of information, but the two subjects' preferences are separated by the maximum of 6 points, the probability drops to .21.

In short, expertise tends to trump agreement, even though subjects are less likely to take information from informants with divergent preferences. Indeed, subjects are four times more likely to communicate with expert individuals holding divergent preferences (.21) than with inexpert individuals holding convergent preferences (.05).

This analysis takes on additional meaning if we locate the construction of these dyadic relationships in the context of the alternative informant choices available to the subjects. The subjects do not always face a set of structured alternatives that allows them to realize their goals. That is, in a perfect world one might like to have an informant who is both politically expert as well as holding convergent preferences. In the experiment, as in the real world, the joint distribution of expertise and preferences is stochastic. In one setting it may indeed be the case that information costs – and hence expertise – are orthogonal to the distribution of preferences. In another setting, preferences and expertise may be highly correlated, and thus some subjects may be unable to realize the Downsian outcome – expert informants with shared biases.

This possibility is addressed in Table 5, where we use a multinomial logit model to consider the joint distribution of preferences and expertise within the group to address individual informant choice relative to the available informational alternatives. The model is estimated twice, once for individuals who hold preferences 1 or 2 on the seven point scale, and again for individuals who hold preferences 6 or 7 on the seven point scale. This allows us to consider both demand and supply in the choice of discussion partners.

The model presents a complex picture, but one of the factors that stands out is the positive relationship between the amount of information purchased by an individual and the attractiveness of an individual as an informant. The table also shows that the attractiveness of an individual as an informant is often (but not always) diminished by the amount of information purchased by a potential informant who holds an adjacent preference. This suggests that informants are substitutable. If there is a high density of expert individuals along some point on the scale, the subject has a number of alternative informants to choose among. Alternatively, and perhaps more importantly, a lone expert surrounded by poorly informed subjects is in a position to play a particularly influential role.

The implications of these contextual constraints on dyad formation are shown in Table 6. Based on the models shown in Table 5, each individual is assigned a predicted probability of choosing informants who occupy one of the two remaining positions farthest to the left, as well as the probability of choosing informants who occupy one of the two remaining positions farthest to the right. The mean probability is displayed across the quartile rankings for the percentage of information purchases by the two potential informants lying farthest to the left and farthest to the right. This is done separately for the two models in Table 5 -- for left leaning and right leaning subjects.

What does this table show? Both parts of Table 6 show that subjects are more likely to select left leaning informants if they are located in groups where the left leaning informants are more informed. Alternatively, they are more likely to select right leaning informants if they are located in groups where the right leaning informants are more informed. The two parts of Table 6 also show that the right leaning subjects are more likely to select right-leaning informants, and left leaning subjects are more likely to select left leaning informants. The magnitude of the selection biases based on political preference are, however, much less important than the magnitude of the effects due to the contextual constraints on supply.

Our subjects behave like Downsians when expert informants are available who share their own preferences. But when push comes to shove – when they must choose between (1) expert informants with divergent preferences and (2) a lack of expertise among informants with convergent preferences – they regularly throw caution to the wind and opt in favor of the disagreeable experts. And therein, perhaps, lies the emergent hope of democratic politics. The self-educative potential of democratic electorates may be anchored in a tendency for expertise to trump agreement in the construction of communication networks.

The question that naturally arises is to what extent these experts can in fact be trusted? That is, to what extent do informants provide candid assessments regardless of the correspondence between their own preferences and the preferences of the subjects requesting the information?

Can the Experts be Trusted?

A basic question arises with respect to the motives that a potential informant has for being less than candid in the communication of information – why would informants not communicate valid information? As described earlier, our subjects earn rewards by electing the candidate holding a position closest to their own. Hence, if they convince others to vote for their favored candidates, they increase the odds of earning greater rewards. This may seem like an artifact of the experimental design, but closer attention to the nature of influence processes perhaps reveals a reasonable level of symmetry.

Suppose that you are a liberal Democrat and you regularly talk politics with a political moderate. Surely one reasonable strategy is to convince this associate that your preferred candidate is a reasonable choice, and one way to pursue this goal is to make arguments that the candidate is less extreme than the moderate associate might think. Or, you might also want to convince the moderate associate that the other candidate is more extreme to the right than the associate might think. Does such communication bend the truth? Perhaps, but it is a staple of political discussion and debate, and based on the results in Table 4A, it would appear that individuals are able to take this factor into account when seeking out sources of political information.

For purposes of this analysis, the focus is on the factors that affect the message that one subject sends to another subject. If the subject is being entirely candid, the message they communicate should be an unbiased estimate based on their own prior estimate of the candidate's position. That is, the subjects form a prior estimate based on public and privately purchased information. Immediately after forming that prior estimate, people ask them for that information, and they are given the opportunity to obtain information from others. If the communication is driven by their candid assessment, it should be predicted by the prior estimate and nothing else.

In Part A of Table 7 the candidate messages sent by the subjects are regressed on the subject's prior estimate, the distance between the sender and the receiver, and the interaction between this distance measure and the subject's prior. With large coefficient estimates of .85 and .84, and t-values greater than 10, it becomes clear that the communicated message directly reflects the subject's prior judgment regarding the candidate. At the same time, the coefficients for the interactions show that the effect of the prior on the message is attenuated by the distance between the positions of the sender and the receiver of the message.

The extent to which the message is biased is demonstrated for "Candidate A" when we consider the predicted message in Part B of Table 7. When the sender and the recipient are located in adjacent positions, the prior demonstrates a substantial relationship to the message. In contrast, this relationship virtually disappears as the distance between the sender and the recipient increases to its maximum.

In summary, we are defining the bias of the message as the relationship between the prior judgment and the message, and the size of this relationship is quite clearly correlated with the size of the preference gap between the two participants in the dyad. As senders and recipients come closer to sharing the same preferences, the senders become increasingly likely to send messages that accurately reflect their own private, prior judgments. In contrast, when the gap in preferences is at its maximum, there is no relationship between the private prior judgments and the communicated messages.

Notice, however, that the relationship between the prior and the communicated message never turns negative. In other words, the message is never predicted to reverse the locations of the candidates. Rather, the predicted message varies between being an accurate portrayal of an underlying prior in adjacent dyads to being independent of the prior in dyads that are maximally divergent. Thus, there would appear to be a lower level constraint of independence on the relationship between the communicated message and the sender's own prior judgment, and this constraint may help explain the willingness of subjects to request information from individuals whose preferences are so clearly at variance with their own.

Does "Cheap Talk" Matter?

We have seen that subjects are more likely to request information from experts, even when the experts hold preferences that are clearly divergent from their own. Moreover, it becomes apparent that the experts are less candid in accurately transmitting their privately held prior assessments of candidates when the recipients hold divergent preferences. In this final section of the analysis, we consider whether the recipients are, in fact, influenced by these messages.

The first model in Part A of Table 8 uses a logit model to regress the ego's vote, which equals one if ego voted for candidate A, on the preference of the ego, the preference of the alter, whether the alter provided information to the ego, and the interaction between information provision and the alter's position. This model shows that communication matters (see Ostrom, Walker and Gardner 1992; Kerr and Kauffman-Gilliland 1994) – all the regressors produce discernible effects on the ego's vote.

A potential criticism is that these results are artifacts created because subjects tend to look for informants who share their preferences. In response to this possibility, the second model in Part A of Table 8 takes advantage of the informational asymmetries imposed by the experimental design. Because communication is one-way, we should not see any reverse influence -- ego should not influence alter. Indeed, and in sharp contrast to the first model's results for ego, the second model of Table 8A shows that alter's vote is only related to alter's preference.

Part B of Table 8 shows the predicted probabilities that ego will vote for "Candidate A" as a function of the preferences held by ego and alter. While ego's vote is affected by alter's preference, this effect is much less pronounced than the effect of ego's own preference. Perhaps it should come as no surprise that ego's preference is dramatically more important than alter's preference in predicting ego's vote. As we have seen, informants with divergent preferences are not entirely trustworthy. These results may simply reflect the fact that individuals are quite reasonably cautious when they obtain information from other individuals.

In this context, Table 8 raises important questions that extend beyond the boundaries of this paper. Does the problem of cheap talk reduce the value of socially communicated political information overall? Or are voters able to make discriminating judgments regarding the value of advice taken from others, contingent on the relative preferences of the senders and receivers of information? Do political experts, defined as individuals who invest heavily in the individual acquisition of information, differ dramatically in their treatment of socially communicated information from the political novices who do not invest at all? In short, the first model of Table 8 provides a relatively crude measure of informational impacts arising due to communicated information. In reality, the impact is likely to vary in both subtle and important ways depending on a range of factors related to the transmitter and recipient of the information.

Conclusion

The design of our experiments is an intentionally abstract rendering of the circumstances under which most people communicate about politics with one another. For most individuals, the acquisition of political information does not generate any substantial and foreseeable short term payoff. People often lack explicit information regarding their own preferences and the implications of these preferences for their votes. In even more situations, people lack information regarding the specific preferences of others and the implications of these preferences for their own political well being. In short, while our subjects are certainly not omniscient, they possess a great deal of information to employ in evaluating the political advice taken from others, in deciding upon the messages to send to others, and in arriving at a vote choice.

Does this lack of realism compromise the utility of our analysis for providing insights regarding political communication? To the contrary, the abstraction allows us to carry out a contingent line of reasoning with respect to the political communication process. If people knew with certainty their own preferences and expertise, as well as the preferences and expertise of others, what would be the consequences for patterns of political communication? The answers to this question are quite revealing, not only with respect to the abstract model underlying the experiments, but also with respect to the real-life consequences among citizens in democratic politics.

First and most important, our subjects place substantial value on political expertise. Indeed, they value expertise more highly than agreement in their search for political discussion partners. As we see, individuals are much more likely to select a politically expert discussion partner who holds divergent preferences rather than a politically uninformed discussion partner with convergent preferences.

Second, the information provided by a subject becomes increasingly suspect as the political divergence between the sender and the receiver of the information grows more pronounced. Lest we become too judgmental regarding the dissembling behavior of these subjects, it is important to recognize the extent of communication bias. In situations where senders and receivers hold divergent preferences, the sender's message tends to be uninformative rather than directly misleading. Translated into the vocabulary of contemporary American politics, our results would not predict a conservative informant to tell a liberal recipient that a conservative candidate is actually a liberal. Rather, we would predict that the conservative would tell the liberal that the conservative candidate occupies a position somewhere within the moderate range of the ideology distribution.

Why do the informants appear to be constrained in the information they provide to recipients with politically divergent preferences? We suspect that they hesitate to provide implausible information. The sender is aware both that the recipient knows the sender's preference and that the recipient has other information to judge the credibility of the information being communicated (see also Lupia and McCubbins 1998). In short, the experiment mimics the real-life setting in which persuasion occurs – a setting in which the person doing the persuading is constrained in their persuasive efforts.

Third, as a consequence of information sharing, the vote choices of the subjects reflect not only their own preferences, but also the preferences of the people from whom they obtain information. In this way, the choices of the subjects are inherently interdependent. At the same time, the subjects' votes are more dramatically affected by their own preferences rather than the preferences of their informants. This is certainly plausible based on the demonstrated lack of reliability we have seen in the information communicated between subjects with divergent preferences. The question that remains is to what extent these persuasive efforts are contingent on the characteristics of the sender and the receiver, both as individuals and relative to one another. For example, Mondak (1995) notes that socially communicated information is more persuasive when individuals lack information from the media. Do our poorly informed subjects ignore the information they have and rely upon what they are told by their more expert discussants?

Finally, our subjects do not make informant choices in a social and political vacuum. To the contrary, they make selections relative to the options that are available. Everything else being equal, they would embrace the Downsian insight and choose expert informants with convergent preferences. But everything else is seldom equal, and given the choice between politically naïve discussants with convergent preferences and politically expert informants with divergent preferences, they choose in favor of expertise. Herein, perhaps, lies the hope and genius of democratic politics. To the extent that individual citizens value expertise and information over agreement, we might hope that citizens in the aggregate are self-educative, and that expertise writ large is an emergent property of democratic societies.

In summary, this analysis has demonstrated a self-interested mechanism through which (1) the vote choices of individual citizens become interdependent, and (2) the aggregate level of political expertise within electorates is enhanced. The *extent* to which communication among citizens enhances expertise depends on the discriminating capabilities of individual citizens, and that is a problem requiring further analysis elsewhere. This analysis has shown that, in their search for expert advice, individuals are fully willing to obtain information from individuals who hold divergent political preferences. In other words, our self-interested subjects were more than willing to trade off agreement in the interests of expertise in their search for political informants.

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Table 1. Information purchased by the cost of information.

Amount Purchased	information cost 0	5	25
0	5.58	7.77	36.25
1	3.98	9.96	34.26
2	6.57	35.06	29.48
3	13.55	26.69	.00
4	70.32	20.52	.00
mean	3.39	2.42	.93
Total	502	502	753

Table 2. Priors regarding candidates by candidates' true positions and the amount of information purchased by subject. (Standard errors corrected for clustering.)

	Prior regarding Candidate A		Prior regarding Candidate B	
	coefficient	t-ratio	coefficient	t-ratio
true candidate position	.24	5.10	.21	3.95
information purchased	-.43	5.84	-.78	7.82
candidate position X information	.15	8.86	.18	9.59
constant	2.44	11.91	3.51	12.17
N =	1757		1757	
R^2 =	.34		.34	
Number of subjects =	119		119	
standard error of estimate =	1.28		1.39	

Table 3. Requests for information received by the subject per round, by the amount of information purchased by the subject during the round and the extremity of the subject's preference.

	coefficient	t-ratio
information purchased by subject	.45	14.24
subject extremity	-.07	2.04
constant	.19	2.47

N = 1757
R^2 = .31
Number of subjects = 119
standard error or estimate = .97

Table 4. Requests for information within dyads.

A. Whether ego asks alter for information during a round, by the amount of information alter purchased during the round, and the absolute distance between the preferences of alter and ego. (Logit model, with standard errors corrected for clustering on egos.)

	coefficient	t-ratio
amount of information purchased by alter	.62	13.10
distance between ego and alter	-.17	-4.29
constant	-2.78	-18.89
N =	10542	
χ^2 =	177	
p =	.00	
Number of subjects (egos)=	119	

B. Predicted probability of asking for information. (Based on estimates in Part A of this table.)

distance between alter and ego	information purchased by alter 0	4
1	.05	.38
6	.02	.21

Table 5. Choice of informant by potential informants' information purchases. Multinomial logit models for left and right leaning subjects.

		Subjects with Positions 1 or 2		Subjects with Positions 6 or 7	
Choice is second from left. [a]		coefficient	t-ratio	coefficient	t-ratio
	first	-.71	-5.58	-.28	-1.79
information purchased	second	.93	6.49	.53	3.18
by potential informants	third	.40	2.63	.09	0.51
(left to right)	fourth	.05	0.48	.43	2.30
	fifth	.02	0.11	.13	0.97
	sixth	.07	0.67	-.31	-2.24
	constant	-1.47	-2.08	-1.45	-1.72
Choice is third from left.					
	first	-.42	-3.03	-.28	-1.96
information purchased	second	.44	2.70	-.30	-1.95
by potential informants	third	.90	5.06	.61	3.68
(left to right)	fourth	-.20	-1.46	.17	0.91
	fifth	-.26	-1.44	.03	0.29
	sixth	.05	0.41	-.20	-1.53
	constant	-1.40	-1.69	-.26	-0.34
Choice is fourth from left.					
	first	-.73	-5.56	-.35	-2.31
information purchased	second	-.03	-0.19	.23	1.38
by potential informants	third	.25	1.60	.04	0.26
(left to right)	fourth	.64	3.75	.88	4.51
	fifth	.15	0.79	-.04	-0.28
	sixth	.11	0.82	-.17	-1.25
	constant	-1.15	-1.34	-1.07	-1.24
Choice is fifth from left.					
	first	-.87	-5.17	-.22	-1.51
information purchased	second	.04	0.23	.11	0.73
by potential informants	third	.03	0.18	-.37	-2.35
(left to right)	fourth	-.45	-2.49	.05	0.29
	fifth	.77	3.50	.80	5.25
	sixth	.02	0.17	-.19	-1.38
	constant	-.04	-0.05	-.53	-0.69
Choice is sixth from left.					
	first	-.48	-3.65	-.40	-2.89
information purchased	second	.05	0.33	.03	0.20
by potential informants	third	.34	2.07	-.31	-2.07
(left to right)	fourth	.05	0.29	-.01	-0.05
	fifth	-.01	-0.08	.12	0.96
	sixth	.69	4.87	.62	4.39
	constant	-1.67	-1.92	-.03	-0.04
Number of obs =		472		477	
χ^2, df, p =		335,30,.00		319,30,.00	

[a]Potential discussants are ordered from left to right. The excluded choice category for model estimation is the first from left, or position 1. A respondent whose position is 1 has six potential informant choices: the first from the left is the informant with position 2, the second from the left is the informant with position 3, and so on. A respondent whose position is 7 also has six potential choices: the first from the left is the informant with position 1, the second from the left is the informant with position 2, etc.

Table 6. Informant choice and the distribution of expertise.

A. The mean predicted probability of choosing left leaning and right leaning subjects by the distribution of information purchases. For right-leaning subjects -- subjects with preferences 6 or 7.

mean probability of choosing an informant who is:	mean information purchases by the two potential informants who are farthest to the left			
	low	medium low	medium high	high
one of the two farthest left	.16 (n=119)	.26 (120)	.33 (119)	.47 (119)

mean probability of choosing an informant who is:	mean information purchases by the two potential informants who are farthest to the right			
	low	medium low	medium high	high
one of the two farthest right	.14 (119)	.30 (119)	.43 (120)	.66 (119)

B. The mean predicted probability of choosing left leaning and right leaning subjects by the distribution of information purchases. For left leaning subjects -- subjects with preferences 1 or 2.

mean probability of choosing an informant who is:	mean information purchases by the two potential informants who are farthest to the left			
	low	medium low	medium high	high
one of the two farthest left	.22 (119)	.42 (117)	.54 (118)	.72 (118)

mean probability of choosing an informant who is:	mean information purchases by the two potential informants who are farthest to the right			
	low	medium low	medium high	high
one of the two farthest right	.05 (119)	.13 (117)	.26 (116)	.49 (120)

Source: Table 5 estimates.

Table 7. Information, Communication, and Bias.
A. The information communicated by alter to ego regarding the candidates, by the alter's priors regarding the candidates and the absolute distance between the ideal points between alter and ego. (Least squares model, with standard errors corrected for clustering on alters.)

	Candidate A		Candidate B	
	coefficient	r-ratio	coefficient	t-ratio
alter's prior regarding candidate	.85	13.81	.84	12.10
distance between ego and alter	.34	2.94	.32	3.39
alter's prior X distance	-.07	2.72	-.08	3.34
constant	.39	1.50	.76	2.32
Number of obs =	1409		1409	
R2 =	.39		.36	
Root MSE =	1.32		1.49	
Number of alters =	110		110	

B. Predicted message by alter's (sender's) prior and the distance between the positions of the alter (sender) and the ego (recipient). Based on estimates for Candidate A in Part A of this table.

distance between positions	alter's prior 1	2	3	4	5	6	7	Δ
1	1.7	2.7	3.5	4.0	4.4	4.7	4.9	3.2
2	2.3	3.0	3.6	4.0	4.3	4.4	4.6	2.3
3	2.9	3.4	3.8	4.0	4.2	4.3	4.4	1.5
4	3.4	3.6	3.9	4.1	4.2	4.2	4.3	.8
5	3.8	3.8	4.0	4.1	4.1	4.2	4.2	.4
6	4.1	3.9	4.0	4.1	4.1	4.1	4.2	.1

Table 8. Asymmetric influence.
A. Votes of Ego and Alter, by the ideal points of ego and alter, and whether alter gave information to ego. (Logit model, with standard errors corrected for clustering on egos.)

	Ego's Vote		Alter's Vote	
	coefficient	t-ratio	coefficient	t-ratio
ego's preference	-.25	9.39	.00	.05
alter's preference	.01	2.42	-.25	9.47
alter gave information to ego	.34	2.53	.02	.14
alter gave information X alter's preference	-.08	2.38		
alter gave information X ego's preference			.001	.05
constant	1.14	9.79	1.19	10.17
Number of obs =	10542		10542	
Wald chi2(4) =	102		91	
Prob > chi2 =	.00		.00	
Number of egos =	119			
Number of alters =			119	

Source: nutab3d.log

B. Predicted probabilities that Ego votes for "Candidate A". Based on part A of the table.

	Alter's Preference	
Ego's Preference	1	7
1	.76	.68
7	.42	.32