Dealbreaker Heuristics and the Social Transmission of Information

Todd Makse
Florida International University

Maria Ovalle
Florida International University

Abstract: In multicandidate races, voters can face severe information challenges in comparing candidates, challenges that can be mitigated with the use of heuristics. One such heuristic, the dealbreaker heuristic (Bernhard and Freeder 2020), involves narrowing the list of candidates by eliminating candidates who score negatively on a single criterion. This heuristic, while useful in individual decision-making, may have yet-unexplored social consequences, as classifying candidates as acceptable and unacceptable may reshape the nature of interpersonal discussions. In this paper, we consider several questions related to the social implications of dealbreaker heuristics. Specifically, we ask whether the individual use of these heuristics influences discussion tone and the value of interpersonal discussion in informing voters. Drawing on a multistage experiment that includes both a fictional campaign information board and a small group deliberation session, we explore the use of dealbreaker heuristics in the context of a nonpartisan local election.

Multicandidate races pose challenges for voter decision-making, a pattern that reflects not merely the complexities of politics, but a universal tendency in decision-making psychology whereby more choices lead to more challenges. In American politics, many multicandidate races are also low-information races where partisanship is not a useful heuristic for choosing between candidates (i.e., primaries and nonpartisan local elections). In such races, voters *can* rely on heuristics such as elite cues (Branton 2003) and endorsements (Lupia 1994), but multi-candidate fields still often produce roll-off (Wattenberg et al. 2000) and diminished information search (Goidel and Armstrong 2025).

One especially important study of decision-making in multicandidate elections is Bernhard and Freeder's (2020) work on "dealbreaker" heuristics. They assert that when facing large fields of candidates, voters can combat information overload by eliminating candidates that fail to meet one or more key criteria. At the individual level, this decision-making approach may counteract many of the challenges of multi-candidate races.

What this work does not consider, however, is the social impact of this mode of decision-making. More broadly, studies of heuristic use and social information flow have largely developed along separate trajectories, even though they speak to some common themes when it comes to information scarcity in multicandidate races. As an alternative or complement to heuristic use, the social flow of information also provides a mechanism for less informed voters to make better decisions by relying on opinion leaders who possess relative informational advantages (Roch 2005). Social discussion can also help less-informed voters bypass true learning by sending unambiguous signals (Sokhey and McClurg 2012) about preferable choices, including, for better or for worse, by amplifying the messaging of partisan media (Druckman et al. 2018)

While the canonical portrayal of the "two-step flow" (Katz and Lazarsfeld 1955) portrays a well-informed opinion leader and less-informed peers, dealbreaker heuristics can partially invert this notion: an individual with a strong, articulable inclination against one or more candidates can provide confident, expert-like pronouncements without possessing broad expertise. While voters may be generally adept at identifying social ties who possess expertise (Huckfeldt 2001), the use of dealbreaker heuristics may serve as a

convincing substitute. In other words, dealbreaker heuristics may not only influence individual decision-making, but also social learning.

Moreover, low-information, multicandidate races are contexts in which social information disagreement is especially likely to be impactful (e.g., Beck et al. 2002). Disagreement can foster openness to attitude change (Visser and Mirabile 2004) and engagement with information (Levitan and Wronski 2014), and these electoral contexts are likely to exhibit forms of disagreement, including intraparty disagreement (Santoro and Sokhey 2024) that transcend mere partisan disagreement (Klofstad et al. 2013). By binarizing candidates into acceptable and unacceptable, dealbreaker heuristics may accentuate these subtler forms of disagreement and allow voters to avoid over-applying partisan schema. On the other hand, this may allow the more toxic features of partisan disagreement to seep into nonpartisan and intraparty contests (see e.g., Groenendyk et al. 2020)

In this paper, we argue that the use of dealbreaker heuristics will influence the contours of social discussion, along two crucial dimensions: disagreement and learning. To evaluate these claims, we explore how the use of dealbreaker heuristics by individuals cascades into social discussion in the context of a four-candidate, nonpartisan, local election campaign. Using a two-stage experiment that combines a fictional campaign information board and a small-group discussion component, we examine whether dealbreaker usage by individuals affects the tenor of discussion, perceptions of agreement with one's discussion partners, and learning about specific policy topics. We find support for the learning hypothesis and partial support for the hypothesized patterns regarding disagreement, providing evidence that use of this heuristic has social effects in addition to their role in individual decision-making. We conclude by discussion the broader implications of the notion that heuristic usage can influence social interactions.

Literature Review

The variety of choice within a multi-candidate race poses voters with a complex decision-making environment, as they are faced with the task of evaluating and comparing

multiple alternatives across a wide range of attributes, often under limited candidate-related information. Despite individuals reporting higher levels of satisfaction when presented with multiple choices, many perceive abundance of choice as overwhelming, particularly in an electoral setting (Goidel and Armstrong 2025). This phenomenon, referred to by psychology scholars as *choice overload* (Cunow et al. 2024), renders the action of voting as increasingly challenging and cognitively costly. Voters become more likely to abstain from voting as it may become too difficult to distinguish between policy agendas, reducing voting accuracy (Dettrey and Schwindt-Bayer 2009).[1]

Because of the challenges that come with multicandidate races, voters tend to rely on heuristics to make choices. As such, the above challenges are especially severe in elections where traditional cues like party labels are nonexistent or less informative for voters, increasing the need to utilize alternative heuristics (Goidel and Armstrong 2025). For instance, work on presidential primaries in the United States shows how voters rely on heuristics such as viability and electability (i.e., sophisticated voting; see e.g., Abramson et al. 1992) to eliminate uncompetitive candidates, even if their evaluations of those candidates may be more favorable (Minozzi and Woon 2023).

Other heuristics are more straightforward. For example, cues associated with candidates' professional background (Adams et al. 2021; Crowder-Meyer et al. 2020a) can reduce reliance on demographic heuristics like gender and race, which in multi-candidate races create structural disadvantages for candidates of color (Crowder-Meyer et al. 2020b). In other circumstances, voters use ideological cues to make decisions, focusing on issue positions and endorsements to identify candidates who share their interests (Holman and Lay 2021). Additionally, voters can rely on incumbency cues, reasoning that the incumbent represents the lower-risk, safer option (Lucas et al. 2022).

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[1] Similarly, as the number of candidates increases in the ballot, the complexity of making a choice increases for voters, consequently, one of the most common challenges associated with multicandidate races is voter cognitive overload. Larger number of candidates in elections can induce voter fatigue, and, in turn, reduce the depth of information processing (Lau and Redlawsk 2001). While voters still seek information about candidates, their ability to examinate information closely is impaired (Seib 2016).

In studying the use of heuristics—and multi-candidate elections more generally—one crucial tool has been the dynamic process tracing experiment (DPTE), as pioneered by Lau and Redlawsk (e.g., 2001; 2006). The DPTE framework mimics the dense amount of information that voters encounter in real-life scenarios, a feature of elections that is exacerbated as the number of candidates increases. Several DPTE studies have either focused on large fields of candidates (Coan et al. 2021; Ditonto et al. 2014), or varied the number of candidates as a condition of interest (Lau and Redlawsk 2001).

The DPTE framework has also been conducive to understanding the role of heuristics in voter decision making. For instance, Lau and Redlawsk (2001) show that voters rely on heuristics like party, ideology, endorsements, viability, and candidate appearance to make decisions during political campaigns, finding that such tools are useful in helping voters make electoral decision mediated by their political sophistication. Other DPTE experiments demonstrate how social cues can function as heuristics, providing voters with guidance in the process of candidate selection (Pierce et al. 2017). Studies of less socially desirable information shortcuts such as race- and gender-based prejudices (Ditonto 2020; Ditonto et al. 2025) also shed light on how biases can influence how voters process information during electoral campaigns.

Theory

In developing a deeper understanding of social information flow and decision-making in multi-candidate races, the dealbreaker heuristic plays a potentially important role. As articulated by Bernhard and Freeder (2020), a dealbreaker heuristic is used when a voter "evaluate[s] whether candidates from a list meet their most important criterion, and harshly penalize those who do not." Unlike other heuristics (e.g., descriptive attributes, endorsements), dealbreaker heuristics refer more to a process of decision-making rather than a specific type of information. This contrast is important because it means that other heuristics have potential to affect individual decision-making, but are less likely to implicate the two-step flow of information. For example, if a voter uses shared group identity as a heuristic, the fact of shared identity may not serve as an especially fruitful

topic for social discussion, since that shared identity is a fact rather than an argument, and one's discussion partner may not share the identity or prioritize that shared identity to the same degree.

The information associated with dealbreakers, on the other hand, may translate more naturally into conversation.[2] A person who finds a fact about a candidate disqualifying may be more likely to share the fact if they hope to persuade others. Especially in a political environment rife with affective polarization, offering a strong argument against one candidate may be as natural a conversational token as advocating for a preferred candidate. And as Bernhard and Freeder (2020) note, the dealbreaker heuristic is an asymmetric decision criterion: candidates who satisfy key criteria do not get as much credit proportional to the demerit received by candidates who do not.[3]

Conversation Tone and Disagreement

The tone of political discussion is an important feature of conversation, whether the focus is on "everyday talk" (e.g., Conover 2005) or the more structured conversational patterns common in the deliberative democracy literature (e.g., Esterling et al. 2019; Fishkin et al. 2021). Interactions marked by conflict can make political discussion less appealing (Groenendyk et al. 2025; Settle and Carson 2019), especially for conflict-averse individuals (Sydnor 2019). While the ubiquity of conflict in online settings (Bor and Petersen 2022) has encouraged increasing attention to these themes, studies of social networks unpacking the nature of negativity in conversation is still a work in progress; Connors and Howell (N.d.), for example, emphasize the importance in distinguishing between tone (e.g., heatedness) and civility.

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[2] Of course, we recognize that many conversations about such races are more incidental (Minozzi et al. 2020), and do not necessarily mirror a deliberative ideal (e.g., Fishkin et al. 2021). Nonetheless, we expect dealbreakers to shape discussion patterns in a variety of discussion contexts, even if the discussion is not one in which the participants are comparing and contrasting the full slate of candidates.

[3] On the other hand, voters sometimes exhibit "preference exclusivity" (Santoro et al. 2024) in multi-candidate races, where they find only one candidate acceptable, even when several candidates seemingly hold similar positions.

While we know a good deal about the effects of uncivil discussion, we know less about its causes. Disagreement—whether known from past interactions or inferred from contextual information cues (e.g., Makse et al. 2019)—is the obvious culprit, but saying that disagreement causes heated conversation is unsatisfying both because it is too straightforward and because disagreement is itself is multifaceted (Klofstad et al. 2013). In addition, existing work is more equipped to comment on conflict across relationships rather than within them. Yet the same individuals might have pleasant or more heated discussions at different points in time, and the political context and direction of conversation may shape which characteristics a particular conversation exhibit.

We argue that dealbreakers—and perhaps decision-making heuristics more generally—have the potential to shape conversational tone around political campaigns. When individuals discuss a field of candidates in conversation, it is inevitable that some candidates will get more attention than others—this alone need not influence the conversation tone. Categorically ruling out candidates, however, can resemble dismissiveness, a bedrock feature of uncivil discussion (Rossini 2019). Simple comparison (i.e., claiming that one candidate is preferable to another) does not necessarily engender the same dismissiveness.

As a result, we argue that the mindset associated with the dealbreaker heuristic may result in sharper, more heated conversation. We expect that individuals who can readily identify disqualifying traits of candidates are likely to raise such points in a discussion context. This, in turn, will both make the overall conversation more conflictual and it will lead to more perceived disagreement between individuals within the conversation.

Hypothesis 1: In discussion groups populated by persons utilizing more dealbreaker heuristics, subjects will report a more negative discussion tone and perceive more disagreement with discussion partners.

Topic Attention and Learning

In addition to the tenor of the conversation, we expect that the use of dealbreaker heuristics will influence the content of discussions, and by extension, the information

learned from them. Understanding how conversations will unfold is a complex undertaking; even assuming the topic of conversation is fixed (e.g., candidates running for a given office), the direction of conversation is likely to be shaped by, *inter alia*, who in the discussion group is perceived as an opinion leader (Lazarsfeld et al. 1944), the agenda setting power (Rossiter 2022) and persuasiveness (Naunov et al. 2025) of individuals in the group, and tendencies toward self-censorship exhibited by members of the group (Carlson and Settle 2016). Carlson (2019) further suggests that agreement between speaker and interlocutor is crucial in shaping learning.

While these studies focus more on the persons in the conversation, the hidden profile paradigm (Stasser and Titus 1985) offers more insights into the likely content of conversations. Although these experiments do not resemble a campaign information scenario in all regards, they typically have two features that easily analogize: the presence of multiple alternative choices and a task to choose the optimal alternative from among them. Another important feature of these studies is the distinction between "shared" information (i.e., provided to all subjects in a group) and "unshared" information (i.e., possessed by only some subjects in a group), a distinction relevant to most political campaigns, but especially those with sparse information and/or many candidates. These studies have consistently found a bias toward discussing the shared information (Stasser and Titus 1985), although other biases, including a disproportionate focus on negative information (Sohrab et al. 2015) and partisan biases in explicitly political scenarios (Manata et al. 2019) emerge as well.

Drawing on these ideas, we argue that the use of dealbreaker heuristics can serve as a powerful shaper of conversations once an individual brings these assertions into conversation. For individuals trying to set the agenda, asserting the unacceptability of one candidate may serve as a more powerful agenda setting device than, for example, asserting that one candidate is preferable to another on some dimension. And while dealbreakers need not be "shared information" per se (i.e., one person's dealbreaker might relate to a fact previously unknown to other discussion group members), they may similarly serve as a focal point for group discussions because of the power of negative information. As such,

we expect conversations to gravitate toward the policy topics where one or more discussion group members identified a dealbreaker with respect to a candidate, and for other group members to report learning more on that topic.

Hypothesis 2: When one or more subjects in a group report a policy-specific reason for excluding a candidate from consideration, members in the group will report more learning on that policy topic.

Data and Methods

To test these hypotheses, we draw on a social process tracing experiment (hereafter SPTE, see e.g., Makse et al. 2025) conducted in December 2025. A SPTE study combines a dynamic process tracing experiment (e.g., Lau and Redlawsk 2001) with a group discussion component, allowing us to observe both information search and processing by individual subjects, as well as the social dissemination of information and its influences on both decision-making and perceptions of the discussion itself.

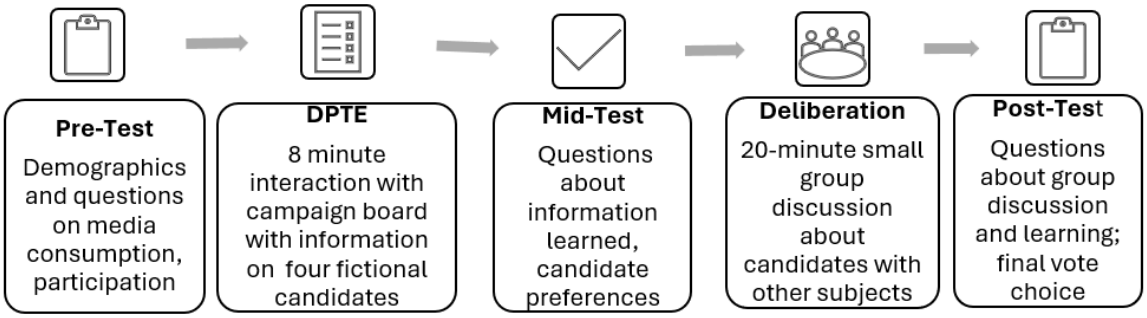
In this study, potential subjects were invited to attend an hour-long video call on Zoom, where the study consisted of five parts: three questionnaires (pre-test, mid-test, and post-test), an interaction with a campaign information board, and a 20-minute small group discussion. Subjects were paid $25 for completing the study.[4] To maximize subject anonymity, we encouraged subjects to join the Zoom call using a pseudonym as a screen name (a request conveyed four separate times in the recruitment survey, follow-up message, study invitation, and at the beginning of the call.) Figure 1 illustrates the flow of the experiment.

We recruited a total of 494 participants through the platform Prolific, of whom 457 completed the entire study.[5] While our sample is not a representative nationwide sample per se, we recruited subjects from 43 states, and obtained substantial balance in terms of

[4] The study was reviewed by the IRBs at Florida International University (study approval #25-0313) and the University of Colorado, Boulder (approval #25-0401).
[5] Fourteen subjects chose to leave the study early or were unable to complete the study due to not follow instructions in the first part of the study. In addition, data from 23 subjects could not be used due to incomplete responses or technical problems.

race, education, region, and gender. Our sample does, however, have a moderate over-representation of Democrats (46%; compared to 29% independents and 25% Republicans). Table A-1 in the Appendix provides a detailed description of the sample and balance statistics across homogeneous and heterogeneous groups.

Figure1: Experiment Study Flow



We situate our experiment in the context of an election featuring four fictional candidates competing for a nonpartisan mayorship in an unnamed city. In designing our scenario, we wished to create an electoral context that neither encouraged nor discouraged the use of dealbreaker heuristics especially. Our candidates had neither party labels nor unambiguous ideological positions: the four candidates could be arrayed from left to right by an attentive subject, but each candidate took some issue positions that deviated from ideological orthodoxy. Compared to a general election scenario featuring partisan candidates or a primary scenario featuring narrower ideological bounds, we believe this scenario is mostly neutral in terms of motivating the use of dealbreaker heuristics. That is, candidates were distinguishable enough for subjects to readily identify dealbreakers, but not so ideologically distinct or predictable such that subjects could merely reject candidates on the basis of political "muscle memory."[6]

[6] Note that the presence or absence of dealbreakers is a stimulus randomly assigned at the group-level, not the individual level. It would not make sense to *assign* individuals to utilize these heuristics or not. Since all three dependent variables speak to observed features of the discussion group, group members, or learning from the group discussion, it is not

In the first part of the study, subjects learned about the candidates on a scrolling campaign information board, as is typical in DPTE-style experiments. During the eight minutes in which they interacted with the board, subjects could learn information about the candidates' positions on five issues (criminal justice, education, environment, housing and immigration) and five pieces of broader information (bio, political experience, accomplishments, issue priorities, and governing vision), meaning that there was a total of 40 items that could be viewed. The median subject viewed 30 pieces of campaign information. Table 1 presents a summary of information about the four candidates.[7]

Table 1: Summary of Fictional Candidates

Name	**Background**	**Ideology**
Gloria Alcaraz	Teacher, consultant at education nonprofit	Typically liberal, but with more conservative position on education
Isabel Badillo	Public defender/civil rights attorney	Typically center-left but with more conservative position on housing
Monica Cabreja	City councilor, owner of construction firm	Typically center-right but with more liberal position on housing
Sandra Doval	Worked at investment firm, lost previous race for local office	Typically conservative but with more liberal position on education

In the discussion component of the study, individuals were assigned to either homogeneous or heterogeneous groups, with assignment done on the basis of party identification, as expressed in a recruitment survey prior to the Zoom session. After all

necessary for dealbreakers to be randomly assigned to individual subjects (e.g., by giving some subjects the dealbreaker identification tasks and others a distractor task).

[7] To avoid subjects drawing any inferences about candidates based on their names (see e.g., Landgrave and Waller 2022 for further discussion), we hold gender and ethnicity constant by giving all four candidates names indicating Latina identity.

subjects had begun the pre-test, a member of the team constructed groups in an as-if random manner based on partisanship and the subject's assignment to another condition unrelated and orthogonal to the subject of this paper. The default group size was four, and most individuals (73%) participated in groups of four, with 10% in groups of three and 17% in groups of five (due to the number of subjects not being divisible by four in all sessions).

After experiencing the campaign but prior to the discussion sessions, subjects completed a brief questionnaire ("mid-test") that included a recall quiz about the candidates and a preliminary voting decision. In addition, to measure the use of dealbreaker heuristics, we asked subjects to identify information they learned about candidates that they found unappealing in an open-ended format. We allowed subjects to do this for up to two candidates. The exact wording of the question was as follows:

> *Thinking about the information you just read, can you think of anything you learned that would make a particular candidate very unappealing? Please list the name of the candidate and describe the unappealing piece of information [...] Can you think of any unappealing information about any other candidate? If you can, please list the second candidate and the unappealing piece of information here.*

The authors coded these open-ended responses to identify three features of the data: (1) whether each statement constituted a dealbreaker; (2) the name of the candidate referenced by the dealbreaker, and (3) the topic referenced by the dealbreaker. Intercoder reliability ranged from 87% to 99% agreement across items. Coding differences between the two authors were resolved via discussion. Of the 457 subjects who completed the entire study, 85% identified at least one dealbreaker and 55% identified two. 76% of all dealbreakers spoke to one of the five policy areas, while the remaining items spoke to candidate biographical traits or topics referenced elsewhere in the campaign information. Table 2 summarizes these responses by candidate and topic.[8]

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[8] One possible critique of this design is that we asked subjects to provide dealbreakers rather than observing whether each person would *apply* a dealbreaker heuristic to their decision-making. Asking this question prior to the discussion session may have also primed group members to raise these same points as topics of discussion. This concern connects to other external validity concerns (e.g., the focus on groups of strangers rather than 'core' network) and may represent a fruitful avenue for future work in this area.

Table 2: Dealbreakers Identified by Candidate and Topic

	Alcaraz	**Badillo**	**Cabreja**	**Doval**
Biography	21 (15%)	20 (15%)	18 (8%)	24 (11%)
Criminal Justice	17 (12%)	22 (16%)	41 (19%)	36 (16%)
Education	32 (22%)	5 (4%)	26 (12%)	6 (3%)
Environment	12 (8%)	16 (12%)	48 (22%)	9 (4%)
Housing	14 (10%)	19 (14%)	12 (6%)	19 (8%)
Immigration	38 (27%)	36 (27%)	50 (23%)	90 (40%)
Other	9 (6%)	17 (13%)	20 (9%)	41 (18%)
Total	143	135	215	225

To test Hypothesis 1, we first aggregate this dealbreaker measure up to the group level, calculating the **average number of dealbreakers** identified by members of the discussion group. This average ranged from 0 to 2, with a mean of 1.4 and a standard deviation of 0.4. To test Hypothesis 2, we code the topic to which each dealbreaker referred. Specifically, we identify what proportion of members in each group identified a **policy-specific dealbreaker** related to one of the five main policy areas in which candidates provided issue positions: criminal justice, education, the environment, housing and immigration.

Hypothesis 1 is tested with analyses at two levels of analysis: perceptions of the group discussion tone (one observation per subject) and perceptions of dyadic disagreement with a specific discussion group member (two to four observations per subject, depending on discussion group size). Our measure of **conversation tone** asked subjects to evaluate the friendliness or discord of their breakout room on a 1-10 scale with the endpoints described as “filled with disagreement and disharmony” and “positive and friendly,” respectively. By and large, subjects reported very little disharmony in the groups (mean = 9.0 ; SD = 1.9), with only 7% of respondents choosing values in the lower half of

the scale (only 8% even in heterogeneous groups). We suspect that the recruitment process and informed consent contributed to this pattern (i.e., persons uncomfortable with conflict may have avoided an hour-long political deliberation study on Zoom).

Our dyad-level measure of **perceived disagreement** is measured using an egonet battery conducted following the discussion section. Subjects were reminded of their discussion partners' pseudonyms and completed a series of questions asking about each individual in their group (e.g., knowledgeability, open-mindedness). Our question of interest asked subjects to assess each discussant in terms of how much they "agree with this person politically" on a four-point scale ranging from "a great deal" (3) to "not much at all" (0). Across all discussion dyads (N = 1287), this variable had a mean of 2.25 (SD = 0.80). Even in ideologically disparate dyads (four points or more apart on a seven-point scale), many subjects reported "some" (37%) or "not very much" (22%) agreement rather than the endpoint of "not much at all" (18%).

Hypothesis 2 is tested at the subject-topic level of analysis, with one observation per subject per topic for each of the five policy areas. The dependent variable in this case, **policy learning**, asked subjects how much they learned about the candidates' positions in each policy area. While a more direct test of the discussion volume part of the hypothesis might have asked subjects about the *amount* of discussion per topic in the discussion group, we opted for the learning formulation because of concerns over accuracy in the self-reporting of time spent performing various activities, such as media consumption (Prior 2009) and social media use (Vraga et al. 2016). By asking about learning, we hope to also capture perceptions about the main thrusts of the conversation, albeit in a more indirect manner.[9] Across all subjects and topics, 20% of responses indicated learning "a lot more" about the candidates, 40% indicated learning "a little more" and 40% indicated learning nothing new. Intraclass correlation coefficients indicate that roughly 12% of variance in this

[9] The countervailing risk is that the learning question does not account for whether the conversation actually produced new information. That is, in theory, a person who learned everything to know about a policy topic during the campaign might report no learning, even if the entire conversation were focused on that topic.

question is attributable to the group level, while only 1% is attributable to policy topic. Table 3 summarizes the designs and dependent variables across the levels of analysis.

Table 3: Summary of Research Designs and Levels of Analysis

Hypothesis	**Unit of Analysis**	**Dependent Variable**
Hypothesis 1	Subject: one observation per subject (N = 457)	Conversation tone (10-point scale)
Hypothesis 1	Dyad: one observation per discussion partner identified by subject in egonet battery (N = 1371)	Subject's perceived political agreement with discussion partner (4-point scale)
Hypothesis 2	Subject-Topic: one observation per subject per policy topic (N = 2285)	Reported learning from discussion on policy topic (3-point scale)

Although the experimental design randomly assigns individuals to groups—and hence, essentially assigns the presence of dealbreakers randomly, we consider both bivariate tests and multivariate models that account for potential individual-level and group-level confounders. First, across all models, we control for whether the subject was assigned to the **heterogeneity condition** or the homogeneity condition, a factor that could shape the overall tone, individual interactions, and the content of the conversation[10]. The subject's level of **political interest** may also affect these outcomes, with more politically engaged persons perceiving more disagreement and reporting more learning.

[10] In addition to the heterogeneity condition, the experiment also includes a fully-crossed condition for a companion study whereby subjects are assigned to consider the candidates under a plurality voting rule or a ranked choice voting rule. We have no expectations that this condition will influence the outcomes in this paper, and alternative models with this covariate included shows no effects or changes to other findings.

In the dyadic models, we also control for the actual **partisanship difference** between the two persons in the dyad, as reported in seven-point self-reports in the pre-test, as we are especially interested in perceptions of disagreement above and beyond objective disagreement; if we observe differences across two pairs of dyads who are similar in actual disagreement but differ in group dealbreaker usage, this is more causally credible evidence of the impact of dealbreakers.

Likewise in the learning models, we account for two features of the data that should be associated with higher self-reported learning. First, individuals who assigned greater **issue importance** to a given policy area (asked in the pre-test) may be more likely to report greater levels of learning due to their motivation to focus on candidate information on that topic. At the group level, we also account for the possibility that some groups are more likely to produce learning because they are composed of persons who paid closer attention or absorbed more information from the campaign. To do so, we control for **group campaign learning**, measured as the average recall score on a four-item battery administered after the campaign but prior to the group discussion.[11] Table 4 summarizes all variables across the different levels of analysis.

[11] Although we have no theoretical reason to consider a relationship between demographic factors and the outcomes in question, we explore whether subject gender, age, race, or education are associated with any of our dependent variables. None is, with the exception of a weak negative relationship between education and reported learning.

Table 4: Descriptive Statistics

Variable	**Mean**	**SD**	**Range**
Subject-level analysis			
Reported conversation tone	9.00	1.87	[1, 10]
Dealbreakers per group member	1.39	0.44	[0, 2]
Heterogeneity condition	0.47	–	[0, 1]
Political interest (5-point scale)	2.83	0.96	[0, 4]
Average recall questions correct in group	1.21	0.59	[0, 4]
Dyad-level analysis			
Perceived political agreement (4-point scale)	2.25	0.80	[0, 3]
Party identification distance (ego v. alter)	1.32	1.29	[0, 6]
Policy topic-level analysis			
Reported learning on topic (3-point scale)	0.79	0.75	[0, 2]
Topic-specific dealbreakers per member	0.23	0.23	[0, 1]
Importance of policy area (4-point scale)	2.41	0.75	[0, 3]

Results

To examine Hypothesis 1, we run a linear regression model predicting whether higher levels of dealbreaker usage in discussion groups are associated with more negative evaluations of discussion tone by individual subjects. As noted above, we examine both a simple bivariate model and a multivariate model that controls for individual- and group-level covariates. Standard errors are clustered by discussion group.

The results, which Table 5 summarizes, find consistent null results across models.[12] The only statistically significant predictor in the model is political interest, with individuals who are more interested in politics perceiving a more positive tone in conversations. Surprisingly, politically heterogeneous groups (i.e., having mixed party identifications) were no more likely to perceive hostility than individuals in homogeneous groups.

Table 5: Linear Regression Models of Dealbreaker Usage and Discussion Tone

	Coefficient (Std. Error)	**Coefficient (Std. Error)**
Dealbreaker usage	-0.16	-0.10
	(0.22)	(0.22)
Heterogeneity condition		-0.28
		(0.25)
Political interest		0.21*
		(0.10)
Average recall score in group		-0.11
		(0.22)
Constant	9.22**	8.82**
	(0.29)	(0.49)
R-squared	0.001	0.012
N	418	418

Note: * $p < 0.05$, ** $p < 0.01$. Standard errors clustered by discussion group.

[12] In addition, we consider the possibility that only the most attentive subjects would be sensitive to these patterns. As in previous DPTE studies (e.g., Civettini and Redlawsk 2009), we consider excluding subjects who viewed very few items on the campaign information board. The null results remain consistent across models only accounting for participants with moderate (more than 10 items) and high (20+ items) levels of engagement.

The second test of Hypothesis 1 shifts the unit of analysis to the discussion dyad. Subjects were asked to rate the extent to which they perceived each of their 2-4 discussion group mates as agreeing with them politically; as such we cluster standard errors by subject. As above, we begin with a simple bivariate test gauging whether groups with more dealbreaker usage have more perceived agreement between discussion partners. The use of dealbreakers is indeed negatively and significantly associated with perceived agreement (b=-0.415, p=0.024). These results can be found in Table 6.

These results hold in a multivariate model that also controls for group heterogeneity and actual political distance between members of the dyad, as measured by distance on a seven-point party identification scale.[13] The result with respect to dealbreakers from the bivariate model is confirmed in this model, with a very similar effect magnitude. Both control variables also predict perceived agreement. Greater political distance between discussants is associated with lower levels of perceived agreement during the discussion (b=-0.124, p=0.039), as is group-level heterogeneity (b=-0.622, p=0.000).[14]

Substantively, we estimate the predicted probabilities across levels of dealbreaker usage. Moving from the lowest to the highest observed level of dealbreaker usage is associated with a 14% decrease in the highest level of perceived agreement ("a great deal"). This effect size is almost identical to the estimated difference between being in a heterogenous group rather than a homogeneous one (15%), and equivalent to the difference between a dyad with matching party identifications and a dyad with individuals

[13] Alternatively, we can measure actual political distance using an ideology scale rather than party identification. The ideology measure has a stronger association, but the two models are quite similar otherwise; the choice of this metric does not affect the inference with respect to dealbreaker usage.

[14] In light of work on gender's effects on deliberation patterns (e.g., Karpowitz et al. 2012), we also consider the possibility that group gender composition might affect perceptions of agreement, either directly, or by conditioning the impact of dealbreaker usage. We find no support for either pattern.

five points apart on a seven-point party identification scale. Dealbreakers, then, appear to play a sizable role in shaping perceptions of other group members[15].

Table 6: Ordered Logistic Regression of Perceived Agreement with Discussion Partner

	Coefficient (Std. Error)	**Coefficient (Std. Error)**
Dealbreaker usage	-0.42*	-0.41*
	(0.18)	(0.19)
Dyad difference in party identification		-0.12*
		(0.06)
Heterogeneity condition		-0.62**
		(0.15)
Log Likelihood	-1347.79	-1320.28
N	1,241	1,241

Note: * $p < 0.05$, ** $p < 0.01$. Standard errors clustered by subject. Cutpoints not reported.

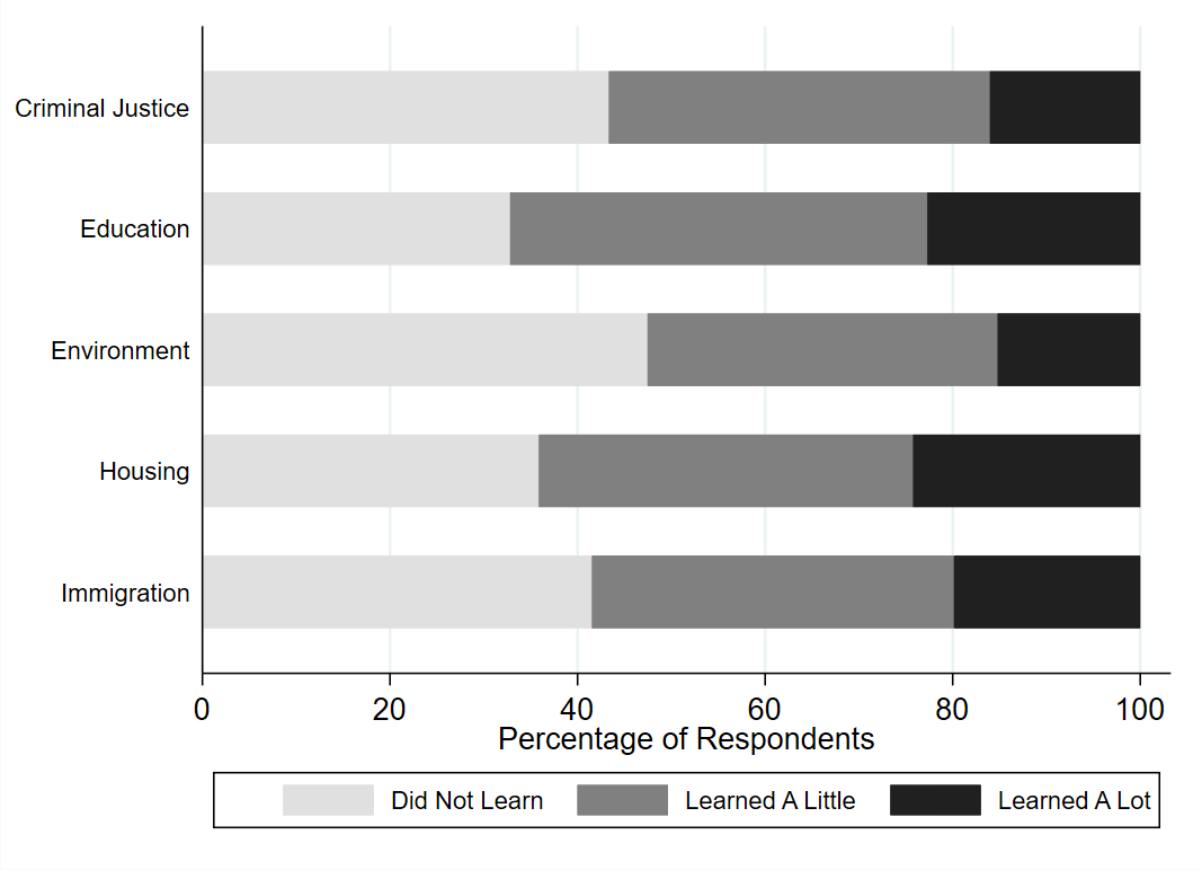
Turning to Hypothesis 2, we begin by examining the distribution of self-reported learning across policy topics. Figure 2 shows that subjects reported the most learning regarding education and housing, with the least learning about environmental policy.

Table 7 presents the results from a trio of ordered logistic regression models predicting whether dealbreaker usage within discussion groups influence learning. For this question, we have five observations per subject corresponding with the five policy areas discussed in the fictional campaign. Given this data structure, we cluster standard errors by respondent and include policy-level fixed effects; we also account for unmodeled heterogeneity across groups by considering group fixed effects in Model 3.

[15] We also consider the possibility that the effect of dealbreaker usage is conditional on group composition, by estimating an interaction model with a multiplicative term for group heterogeneity and dealbreaker usage. The interaction term is not statistically significant. However, the marginal effects from this model indicate the effect of dealbreakers is statistically significant for homogeneous groups and not discernible from zero for heterogeneous groups.

Model 1 begins with a bivariate analysis predicting learning as a function of the number of dealbreakers among group members. The effect of dealbreaker usage is positive and statistically significant (b=0.388, p=0.015). Model 2, which adds covariates and policy fixed effects, estimates an even larger effect of dealbreakers (b=0.645, p=0.001). Unsurprisingly, the model also indicates that individuals report learning more about policy areas they deem important. However, the other individual-level (political interest) and group-level (average recall and heterogeneity) covariates do not add explanatory power. While group heterogeneity and aggregate attention did not explain learning, group fixed effects (Model 3) do add substantial explanatory power to the model; the proportion of correctly classified cases improves from 44% to 52% based on group membership. Undoubtedly this is due to some groups staying more on task, discussing a broader array of topics, or focusing on unshared information rather than shared information. This final model also indicates the largest estimated effect of dealbreakers (b=0.759, p=0.000).

Figure 2: Reported Learning by Policy Area



To assess the magnitude of this relationship, predicted probabilities are estimated across different levels of dealbreaker usage, ranging from nobody in the group identifying a dealbreaker in a specific policy area (roughly the bottom 41% of the distribution) to half of the group members doing so (roughly the 77th through 93rd percentiles). The results indicate that moving from low to high policy-specific dealbreaker usage in a group is associated with an 5% increase in the probability of reporting the highest level of learning ("learned a lot more"). By comparison, this is slightly larger than the effect of a two-unit change on the four-point policy importance scale (how much the individual cares about that policy area). The model, then finds support for Hypothesis 2.

Table 7: Ordered Logistic Regression Models of Learning by Policy Area

	Coefficient (Std. Error)	Coefficient (Std. Error)	Coefficient (Std. Error)
Dealbreaker usage	0.388*	0.644**	0.759**
	(0.159)	(0.189)	(0.192)
Political interest		0.011	0.028
		(0.064)	(0.070)
Policy Importance		0.190**	0.197**
		(0.064)	(0.066)
Heterogeneous group		-0.017	
		(0.124)	
Average recall		0.016	
		(0.102)	
Policy fixed effects		✓	✓
Group fixed effects			✓
Log Likelihood	-2323.039	-2285.348	-2077.252
N	2,211	2,199	2,199

Note: * $p < 0.05$, ** $p < 0.01$. Cutpoints not included. Standard errors clustered by respondent.

Conclusion

In this paper, we find evidence that the way individuals evaluate candidates during a campaign can also have implications for patterns of interpersonal discussion. More

specifically, dealbreakers, which are an important decision-making heuristic in elections with many candidates and scarce information, lead to more perceived disagreement and higher self-reported learning in discussion groups. This phenomenon adds a new twist to classic accounts of the two-step flow of information; social groups may not merely be composed of opinion leaders and followers, but of individuals who process information in meaningfully distinct ways. In turn, this suggests that in analyzing the social flow of information, scholars should pay attention to how individuals process information not only because of its effects on decision quality, but because information processing styles and patterns can have second-order effects in social circles.

While we have focused on one specific type of heuristic in this paper, future work might consider whether other heuristics, especially those that are more content-based (e.g., endorsements, shared identity) than process-based, have similar social implications. And even within the category of dealbreakers, does ruling out a candidate due to perceived inexperience or corruption produce different than ruling out a candidate due to an undesirable policy position? Moreover, how much of the effect captured in this paper stems from the speaker's assuredness and conviction versus the content conveyed?

While the research design used in this paper is especially conducive to capturing both individual processing and social transmission of information, additional insights into the link between heuristic use and social information processing can also be achieved through other means. For scholarship where the SPTE design is not feasible, studies that focus primarily on individual sharing of information (e.g., Carlson 2019; Naunov et al. 2025) or on group discussion (e.g., Druckman et al. 2018) can be deployed to capture aspects of this process. As with many studies of discussion and deliberation, our study focuses on strangers in a one-time conversation, the epitome of weak ties. Studies that can draw on the strength of the SPTE design in the context of strong ties and established relationships may deepen our knowledge of the nexus between individual information processing and the two-step flow of information.

With the ever-increasing size of presidential primary fields, healthy intraparty competition for state and federal offices, and election innovations (e.g., ranked choice,

top-two and jungle primaries) that promote expanded candidate fields, the importance of paying attention to electoral contexts outside of two-party competition is greater than ever. With that in mind, a question that looms large is whether heuristics retain their decision quality-enhancing properties once they become social information. The measure of self-reported learning in this study says little about the usefulness of the learned information. However, work on correct voting (Lau and Redlawsk 1997; Sokhey and McClurg 2012) offers a roadmap to assessing these questions, and to asking whether cognitive shortcuts are only useful tools for the individual or whether their benefits convey across social networks as well.

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Appendix

Table A-1: Sample Balance Across Homogeneity Conditions

	Full Sample	Homogeneous Groups	Heterogeneous Groups
Female	54	52	57
Democrat	46	61	30
Republican	25	23	27
Independent/Other	29	16	43
White	72	72	71
Black	16	15	16
Latino	10	12	9
Asian	7	8	7
Less than BA	34	33	34
BA Degree	41	40	42
Graduate Degree	25	26	23
Midwest	20	20	20
Northeast	19	19	19
South	41	38	45
West	20	23	17
Political Interest (0-4 scale)	2.83	2.90	2.76
Political participation acts index (0-4)	0.55	0.54	0.57

*Indicates significant difference at $p < 0.05$. Note that the distribution of partisans across the two conditions is by design. Given the overall over-representation of Democrats in the sample, a greater number of homogeneous Democratic groups had to be created to keep heterogeneous groups sufficiently mixed.