



Is influence mightier than selection? Forging agreement in political discussion networks during a campaign



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ABSTRACT

Is political agreement in social networks the product of selection or influence? We investigate this question using the first large, general population sample survey to track changes in the political discussion partners named by respondents over the course of an election campaign. We identify two social processes at work during the nine months prior to the election: “selection”, or the likelihood that people choose discussion partners based on their political views, and “influence”, or the likelihood that respondents exposed to political disagreement change their intended vote choice. We find evidence of both positive and negative selection for political agreement, as well as evidence that people are influenced by their friends and family.

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1. Introduction

Most people hold political views similar to those of friends and family members. Considerable evidence demonstrates that friends, family members and coworkers are likely to agree on political matters, including political partisanship (Jennings and Richard, 1981; Kenny, 1994), vote choice (Berelson et al., 1954; Huckfeldt and Sprague, 1991, 1995; Pattie and Johnston, 2000; Nieuwebeerta and Flap, 2000), and other political attitudes (Bienenstock et al., 1990; Huckfeldt et al., 2004a,b; Pattie and Johnston, 2000). The question remains as to why such high levels of agreement exist: is it sign of some process of influence, in which individuals' choices are in part a function of the choices of others around them? Or does agreement more often result from selection, in which people choose to discuss politics with like-minded others? This paper contributes to the ongoing debate over the roles played by selection and influence in contributing to high levels of observed political agreement, looking closely at changes in both self-reported political discussion networks and vote choice during an election campaign.

Several previous attempts to study the relationship between political discussion networks and vote choice have been unable to separate influence from selection. Such studies used a cross-sectional sample survey design, in which main respondents provide the names, political preferences, and other information about their own political discussion networks at a single point in time. Main respondent vote choice is modelled as a function of the preferences

of named political discussants, while statistically controlling for the impact of shared interests as captured by key demographic attributes and other factors relevant to vote choice. Studies of this kind, however, cannot control for the potential effects of selection: it may be that respondents have chosen to discuss politics only with others who already agree with them. Similar criticisms have also been levelled at research using aggregated contextual information to study the impact of the broader social context on individual vote choice (Pattie and Johnston, 2000; Huckfeldt, 1979).

Longitudinal survey data and quasi-experimental designs have proven more effective at teasing apart the impact of selection and influence. Klofstad (2007) finds social influence may drive increased participation among college students randomly assigned to dorms, while Nickerson (2005) finds evidence of spillover effects of voter mobilization experiments. However, neither of these studies addresses the impact of social context on partisan preferences. Two large survey studies with a panel component isolate the impact of social influence, but only amongst marital and familial dyads (Jennings and Richard, 1981; Zuckerman et al., 2005). Finally, experimental work offers evidence that networks, whether or not a source of social influence themselves, may condition the effectiveness of persuasive messages. People with more diverse networks scrutinize persuasive messages more carefully than those with homogeneous networks (Levitan and Visser, 2008), and are ultimately more likely to change their attitudes (Levitan and Visser, 2009). This study draws on longitudinal panel data from a general population sample, offering generalizable insights into the broader social processes of selection and influence on partisan choice during an election.

This paper takes advantage of a new multi-wave election study conducted during the 2010 British general election cycle as part

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of the Cooperative Campaign Analysis Project (CCAP). The British CCAP includes measures of vote choice and political discussion networks on four different waves of the survey conducted over a nine month period. We use methods that allow us to isolate the dynamic impact of selection (i.e., changes in self-reported discussion partners) and influence (i.e., changes in self-reported vote choice conditional on exposure to political disagreement) during the election. We stress that our results apply only to the processes of selection and influence that operate during the campaign, and therefore undoubtedly underestimate the contribution of both process to already high levels of political agreement in discussion networks prior to the study.

Surprisingly, we find evidence for influence as expected, but relatively little evidence of selection. While respondents with politically diverse networks are more likely to change their anticipated vote choice during the lead-up to the election, most respondents do not appear to actively select like-minded political discussants during the same nine month period of study. While some respondents with strong partisan identities and high levels of political interest may be more likely to retain discussants with whom they agree, the majority of respondents with weaker partisan identities and lower levels of political interest continue to discuss politics with those who do not support the same party. Also contrary to expectations, we find that the family is an important source of persistent political disagreement. While people have more disagreements with peripheral contacts, these peripheral contacts are much more likely to drop out of the network than familial contacts. Finally, we find that political disagreement may in some cases encourage sustained interaction and political engagement, once again contrary to previous findings. Thus, at least in the case of the lead-up to the 2010 UK general election, there was more evidence of influence than selection.

2. Reaching agreement: selection and influence

This paper focuses on two mechanisms believed to underlie the high levels of observed political agreement: selection and influence. People may *select* political discussion partners on the basis of political opinions. Citizens may avoid undesirable discussants, and seek out compatible ones, in multiple ways. Directly, citizens may choose to avoid those with whom they disagree, and instead associate or discuss politics only with those who share their political views. Selection of political discussants does not necessarily mean ending pre-existing relationships or befriending all Liberal Democrats that one meets; it can be as simple as choosing to sit at the opposite end of the table from politically conservative Aunt Edna at family gatherings. Indirectly, people make many other choices that shape their pool of available discussants. For example, one might choose to live in a neighborhood or city with a reputation for being conservative, or pursue an academic career in the hopes of spending time around other liberals.

However, political agreement is not likely to be the foundation of most marriages, let alone most social interactions. Citizens who do not or cannot indirectly avoid dissent through choices of where to live and who to marry may instead try to avoid conflict by avoiding political discussion, either completely or at least with those who do not share the same political views (Ulbig and Funk, 1999; Eliasoph, 1998; Mansbridge, 1980; Fitton, 1973). In focus groups, people have reported avoiding discussion because “people are gonna think you’re a terrible person if you don’t believe exactly what they believe” (Conover et al., 2002). Selection of political discussants may be motivated by a general fear of revealing preferences to others who are not trusted: “I’m just not that brave” volunteered one participant (Conover et al., 2002).

Even assuming some degree of selection of friends or discussion partners on the basis of political views, however, does not preclude the possibility that people might be exposed to other views through social interaction. Relationships can rarely be turned on and off like a television, and it is much easier to change channels than to change discussion topics. As Lazarsfeld et al. (1968) point out, it is much easier to selectively choose media exposure on the basis of political agreement than it is to limit social relationships on the same basis, as politics often “comes up unexpectedly as a sideline or marginal topic in casual conversation.” The authors provided numerous examples of the pervasive nature of political discussion in everyday life, ranging from families influencing one another to a waitress who switched her vote after overhearing “bits of conversation that were not intended for her” (Lazarsfeld et al., 1968, p. 153).

If two people do not see eye to eye on a political issue, then there is a chance that they may *influence* each other. One partner may introduce new information that serves to shape or change the other’s views. Both partners may seek a middle ground or compromise position to allow them to continue amicable discussions. Or combined social pressure may push one of the partners to a new political position even where reasoned discussion fails. We define influence quite broadly as any time the decision of one person is conditional on the decision of others (Rolfe, 2009). Thus, influence is not tied to particular motivations to conform, and the person who is influenced may not even be aware that his or her opinion has been influenced (Rolfe, 2012).

How often is observed agreement in political discussion networks the result of broadly defined influence, and how often does it result from selection? In this section we outline the ways that influence and selection are expected to change agreement during the course of a single election campaign. Due to the limited time frame of the study, we cannot observe earlier events where influence and selection forged high levels of pre-existing agreement in political discussion networks. However, we can observe a series of decisions made by many individual citizens over the course of an election: decisions about both political discussion partners and partisan support. The discussion below highlights how we might identify the processes of selection and influence at work during an election.

2.1. Selection

Do people talk about politics to the same people throughout a campaign, or do they more actively select discussion partners from among those available? In our research, we find that people change who they talk to about politics (or at least remember talking to) fairly frequently during the course of a single election campaign. Just over half (53–59%) of the discussants named in one survey wave re-appear in a subsequent wave. What factors may affect the likelihood of retaining discussion partners for a longer period of time? People may select on political similarity, preferring to talk about politics only or primarily with those who prefer the same political party. Other aspects of the relationship, such as marital or familial ties, or shared close friends, may also increase (or decrease) the likelihood of ongoing discussions.

Selection, as noted above, can consist of both direct and indirect choices that might impact political agreement. We may increase the availability of like-minded partners through choices of where to live, work or marry, and/or choose to discuss politics with the friends with whom we already agree. In the relatively short nine month campaign period under consideration, it is unlikely that many respondents are making major decisions (e.g., changing jobs, getting married) that will affect their pool of potential political discussants. Therefore, we expect that selection during a campaign

will take the form of direct or active selection of discussants from amongst those available.

Respondents who experience disagreement may withdraw from political discussion altogether in order to avoid conflict. Prior research has shown that disagreement can have a demobilizing effect on political engagement (Mutz, 2002), and it stands to reason that this might extend to actively avoiding political discussion to avoid a contentious conversation. If a respondent withdraws from disagreement, he or she might name fewer discussants on subsequent waves of the surveys, or fail to participate in those waves altogether. Therefore, before examining selection and influence, it is important to account for a potential disengagement hypothesis: *main respondents who experience disagreement during discussion may (a) withdraw from political discussion or (b) drop out of the survey.*

Alternatively, a respondent who experiences disagreement may try to avoid conflict by simply avoiding the people whose views he does not share. If a respondent fails to name a discussant with whom he has an acknowledged disagreement on any subsequent survey waves, it may be that he is actively selecting for political homophily. To assess the rate of selection, we compare the retention rate of politically similar discussants to those with whom the respondent does not agree.¹ Therefore, the primary selection hypothesis is: *main respondents will be more likely to retain agreeable discussants than disagreeable ones.*

While our primary interest is in selection on the basis of political homophily, the existing literature suggests that political characteristics of the main respondent and the closeness of the dyadic relationship itself might also affect whether a respondent is likely to name the same discussant again during the course of the election. Therefore, we briefly review these additional factors that might affect discussant retention here, and include measures of the critical factors in the estimated selection model.

First, the political characteristics of the respondent might affect the likelihood that he or she selects discussants on the basis of shared political preferences. Citizens choose not only the people with whom they will (or won't) discuss politics, but also which newspapers to read, television channels to watch and political actors to believe. Active selection of political messages takes place across a range of sources, including both media messages and political discussants. Prior research has shown people can and do actively select media sources on the basis of political agreement (Bennett and Iyengar, 2008; Iyengar and Hahn, 2009; Stroud, 2008). Citizens who are more engaged in politics, as well as those with stronger political identities, are more likely to select to receive only messages from sources with which they already agree (see also Zaller (1992)). It may be that a similar process is at work in selection of political discussion partners, with *stronger partisans and more politically engaged subjects are more likely to choose to discuss politics only with like-minded alters.* This hypothesis is a modified version of the selection hypothesis above, in which only citizens who care about politics and/or have strong political identities actively select discussants.

Political agreement is not the only characteristic of the dyadic relationship that affects the likelihood that a particular discussant will be retained, as the strength or closeness of the relationship is also likely to play a significant role. Prior evidence also suggests that strong ties are more likely than weak ties to persist over time

(Brewer, 2000; Marin, 2004). In particular, the roles of spouse and family member are by definition relatively stable over time, and family members are more likely to be part of a stable core discussion network (Morgan et al., 1997). Additionally, dyadic ties that are embedded in a larger network of joint friendships are more persistent than relationships where those involved do not share other ties in common (Hammer, 1979; Burt, 2000). The relationship status hypothesis asserts that relationship status will have an independent impact on discussant retention: *main respondents will be more likely to retain spouses, family members and other close ties as political discussants, regardless of political agreement.*

Disagreement and closeness, then, are expected to work in opposite directions; disagreement decreasing the likelihood of ongoing political discussion and closeness increasing the chances that discussion continues. But what is likely to happen when someone's spouse or sibling supports a different political party? Close ties, including spouses and family members, are generally more likely to agree with the main respondent than other members of the network (Huckfeldt and Sprague, 1995; Jacobs et al., 2009; Mutz and Mondak, 2006; Nieuwebeerta and Flap, 2000). But when there is disagreement among spouses, family members or close friends, the opposing forces may interact in distinct ways. In statistical terms, closeness of the relationship may change not only the intercept, but also the slope of disagreement. It may be that disagreement increases discussion in close relationships, as such relationships may provide a safe place for political discussion. Alternatively, it could be that disagreement in close relationships is particularly objectionable, and thus discussion is more likely to be avoided. Existing research provides little guidance as to what we might expect in this case, and the guiding insight that political discussion is risky supports hypotheses along both of these lines. Thus, we investigate the potential interactions between close relationships and disagreement, but have no clear expectations as to how these might affect selection of discussion partners.

2.2. Influence

Suppose, however, that some people continue to discuss politics with those who do not hold the same political views. Discussion and engagement with diverse viewpoints opens up the possibility of influence: one person may change his or her mind as a result of new information, social pressure, imitation of peers or some other psychological mechanism associated with making conditional choices (Rolfe, 2009, 2012). Note that this definition of influence is in line with the technical use of the term in the literature, but much broader than the common usage of the term "influence" to denote an ill-specified mechanism akin to peer pressure. Unlike peer pressure, deliberate conformity or other motivational mechanisms, traces of dynamic conditional choice processes can be observed (Rolfe, 2012; Young, 2009).

How then, might we expect political disagreement to affect the main respondent's voting intention during a campaign, and what other factors might also effect a change of voting intentions?² Influence may depend less on dyadic disagreement with a single discussant, and more on the distribution of attitudes within the larger political discussion network. It could be that many people are conditionally responsive to the voting decisions of others with a majority focal point (Rolfe, 2009; Latane, 1996; Huckfeldt et al.,

¹ As an anonymous reviewer pointed out, it may be that a respondent discovers between waves that he and a discussant with whom he assumed he shared views actually disagree, and thereafter avoids further political discussion with that person. If so, we might underestimate the extent of selection. However, the data suggest this is not a serious issue, given that we observe minimal selection on the basis of similarity and positive selection on the basis of disagreement for most respondents.

² Influence does not flow only from discussant to main respondent, it can also flow in the other direction with the result that one, two or all members of a social network may shift their political views. However, given that we have only limited information about the large networks within which main respondents are embedded, we will focus our discussion on situations in which the main respondent is influenced (or not) by his or her discussants rather than vice versa.

2004b), changing views to support the political party favoured by the majority of their discussants. Or it could be that conditional responsiveness takes on a more linear form, with main respondents increasingly likely to switch vote choice as a greater proportion of their friends support a different candidate. Regardless of functional form, the influence hypothesis holds that *a respondent will be more likely to change her vote choice conditional on disagreement in her political discussion network.*

Of course, to show that changes in anticipated vote choice stem from influence or conditional decision-making, it is necessary to control for alternative explanations. Because we focus on change rather than direction of vote choice, we control for predictors of stability rather than correlates of vote choice or direction of partisanship. Previous studies have identified two factors in particular as important: political awareness or interest, and strength of partisan preferences (Converse, 1966; Zaller, 1992). *Committed partisans and politically engaged citizens will be less likely to change their vote choice than those who are less politically aware or with a weaker political identity.* We include these variable to control for changes that result from individual attributes rather than network-based processes. We also hypothesize that there may be interactions between individual attributes and network processes. People with lower levels of interest and weaker partisan preferences may be more likely to be influenced, holding constant the level of exposure to political disagreement.

3. Data and measurement

Data for the paper comes from a longitudinal panel study of the UK general population.³ Six waves of surveys were administered over the internet by YouGov as part of the British Cooperative Campaign Analysis Project (CCAP) during the period before and after the British general elections held on May 6, 2010. This paper uses data gathered by the Oxford/Saïd CCAP team during the final four waves: Wave 3 held just before the party conferences (September 2009), Wave 4 (January 2010), the pre-election Wave 5 (late April 2010) and the post-election Wave 6 (early June 2010). This study adds to the large body of research documenting the impact of social context on political opinions within the UK (Pattie and Johnston, 2000; Johnston and Pattie, 2006), and is in line with earlier work treating political discussion as a phenomena meriting cross-national study (Huckfeldt et al., 2005).

In each wave, respondents were asked to provide the initials of up to five people with whom they had discussed politics in the previous month. This question (or name generator) was designed to elicit only the names recent political discussants, not a list of political discussants in general. The one month time window is smaller than that used in previous studies of political discussion, including the Comparative National Election Project, the British Election Studies, the General Social Survey, and the South Bend study. The repeated use of this name generator over a nine month period allows us to investigate changes in political discussion partners over time. Table 1 gives an example of how the original data looks from the perspective of the main respondent who provided the initials of up to 5 discussants recorded during each wave of the survey.

1405 respondents responded to the team portion of the initial CCAP wave, and all of those respondents were invited to participate in each of the subsequent waves included in this analysis. Not all respondents participated in every wave, and not all respondents who participated in a particular wave provided valid information about at least one discussant. A total of 1042 respondents

Table 1

Data structure with main respondent as primary unit of analysis.

Main respondent ID	Wave 3		Wave 4	
	Discussant 1	... Discussant 5	Discussant 1	... Discussant 5
1	SD	... JT	SD	... AR
2	ML	... PF		...
3	HY	...	CW	... BP

Table 2

Data structure with discussion dyad as primary unit of analysis.

Discussant name	Main respondent ID	Appears in wave 3	Appears in wave 4
SD	1	Yes	Yes
JT	1	Yes	No
AR	1	No	Yes
ML	2	Yes	No
PF	2	Yes	No
HY	3	Yes	No
CW	3	No	Yes
BP	3	No	Yes

participated in at least two of the four chosen waves, almost three-quarters of whom ($n = 738$) provided valid discussant information on two or more waves.⁴

In order to study changes in the network, we need to identify whether a discussant was named more than once by a main respondent. The provided initials of discussants were matched across multiple waves of the study, and each unique discussant was identified.⁵ Thus, it is possible to trace both whether a discussant was named at a later date during the election, and how the presence of acknowledged disagreement within the dyad changes over time. The matching also allows the dataset to be transformed to focus on the dyadic relationship between main respondents and their named discussants, as indicated in Table 2. The transformed dataset includes 990 main respondents who named at least one discussant, 885 of whom participated in at least two waves and 738 of whom named discussants in at least two of the four waves. Main respondents participating in at least two waves named an average of 6.8 unique discussants, for a total of over 5000 unique dyads recorded.⁶

3.1. Acknowledged disagreement

After naming up to five discussants, respondents were then asked to indicate characteristics of the discussants, including whether their discussants are “likely to vote for a different political party.” Main respondents were not asked to indicate specifically

⁴ Note: $n = 468$ respondents participated in three waves, and $n = 180$ participated in all four waves.

⁵ These matches were reviewed carefully, with the final match taking into account inconsistent use of initials or capitalization (e.g., J.S. vs. jbs) and inalterable characteristics of the discussants (e.g., female, family member, foreign-born). We piloted and ran an initial study using names, and found that it was very difficult to match names (i.e., sometimes people would enter B. Smith, sometimes only a first name ‘Barney’, sometimes a reference like ‘mum’). We found more consistent results using initials. Then, before matching discussants, we ensured that both initials and fixed characteristics matched. It is not impossible that one or more respondents had two friends with the same initials and who also (a) were perfectly matched on all other personal characteristics and (b) each appeared in the respondent’s political discussion networks during one or more waves, but (c) did so only when the other friend with the same initials did not appear. But this event is unlikely to be so common as to affect our results.

⁶ 5797 unique dyads altogether, 5418 involve respondents who participated on two or more survey waves, and 5012 involved respondents who named discussants on two or more waves.

³ For more on the YouGov sample and procedures, see Twyman (2008). For more on the CCAP project, see Jackman and Vavreck (2010).

which party or candidate is supported by the named discussant. This procedure was intended to significantly reduce respondent burden (Anonymized, 2010),⁷ and to be less prone to errors in multi-party systems than the traditional approach of eliciting the name of the party preferred by each discussant. Errors in reporting discussant preferences posed a particular concern in multi-party systems, with respondents from a prior study failing to correctly identify the partisanship of more than 30% of named discussants who were later contacted and asked directly about their own partisan preferences (Huckfeldt and Sprague, 1987). However, this high mistake rate was driven primarily by confusion over third party candidates and non-voting. Thus, our measure asks only about perceived partisan disagreement, which respondents identified with 90% accuracy in earlier studies, but does not distinguish between agreement and uncertainty, as respondents may mistakenly assume agreement when they are not sure about their discussant's preferences.

We expect for the rate of acknowledged disagreement to increase closer to the election, as political discussion increases and party preferences solidify. Thus, aggregate levels of acknowledged disagreement observed at a point in time are not likely to be informative about the relative impact of selection and influence. In line with previous research (Huckfeldt et al., 2004b), we find that the average level of disagreement in discussion networks does not decrease during the campaign. Between 20 and 24% of all dyads reported on each of the survey waves are characterized by acknowledge disagreement, and acknowledged political disagreement is highest on the post-election wave. Thus, an increase in political awareness works in opposition to selection and influence, and thus can mask the effect of influence and selection in aggregated data.⁸ These countervailing trends highlight the importance of using the correct techniques and model to parse out the effects of selection and influence during the campaign.

3.2. Relationship with discussants

Respondents are also asked to indicate whether the discussant is a spouse, a family member, or a close friend of someone else on the list.⁹ The spouse and family member designations are coded as either 1 (the discussant is a spouse, or the discussant is a family member) or 0. The designation of a "close friend of someone else on the list" might indicate that the relationship between the respondent and named alter is particularly cohesive, as it is embedded in a larger network of ties (Hammer, 1979). It might also indicate that the two individuals are structurally equivalent, or are friends with the same people. As noted earlier, it is difficult to disentangle the concepts of cohesion and structural equivalence in an egocentric network, and thus we use indicators of all three types of close relationships: marital, familial, and embedded friendships. All three relationship variables are coded as mutually exclusive (i.e., spouses are not also family members, and neither spouses nor family members are coded as close friends).

3.3. Main respondent characteristics

Finally, the data contain important measures of main respondent characteristics collected as part of the study. Main respondent

vote choice is measured on each wave of the survey, with respondents asked to indicate which party they plan to vote for in the coming election. Respondents who had not yet made up their mind were asked if they were leaning towards a particular party, and this information was also incorporated into the vote choice variable.

The binary distinction between respondents who had or had not already decided which party they would support was used as the basic measure of political identity strength. Two additional measures of strength of political identity were also collected and used in robustness tests: strength of their partisan identification (recorded on a three point scale), and a folded ideology scale (with 5 as extreme liberal or conservative, and 0 as middle of the scale) (Iyengar and Hahn, 2009). Both have been used in prior research, but the latter may not translate to the multi-party European context.

Political engagement, like strength of political identity, may affect both selection and influence. Previous studies of similar topics have employed a variety of measures for this construct, including education, political interest, political knowledge, and media use. While it is not appropriate to use more than one of these indicators for a single estimate, all are available in the CCAP data. Not all questions were asked on all survey waves. To maximize variation and minimize missing data, we use as a primary measure on average of political interest rated by the respondent on a four point scale; a question asked on all waves of the survey. Other measures of political engagement are used only for tests of model robustness.

Finally, we control for the mechanical effects of participation and network size at the individual level. Some respondents do not name any discussants on a given wave, although this may not be an accurate indication of whether the respondent discussed politics in the previous month (Bearman and Parigi, 2004). Additionally, the average number of discussants named in each wave may affect the likelihood that a discussant is retained in the network. It may be that a discussant named by someone with a larger network has a greater chance of re-appearing simply by chance. Alternatively, it could be that people with larger networks are more likely to forget alters (Brewer, 2000).

3.4. Methods

The analysis of the data proceeds in three steps. First, we use a combination of descriptive statistics and standard multiple regression (i.e., logistic regression with non-participation as the dependent variable) to assess whether respondents who disagree with their discussants are more likely to withdraw from political engagement, either by reducing their reported number of political discussants or by dropping out of the survey altogether. This step also allows us to make an informed assessment as to whether survey attrition (or drop-out) is non-random in a way that is likely to bias our other results, and informs our treatment of attrition in the remainder of the analysis.

Next, we assess the primary selection hypothesis, along with modifications and alternatives described above. Selection of political discussants may take place in many ways, but our focus is on the active selection of political discussants during the campaign season. Following van Duijn et al. (1999), we investigate change in ties within personal networks; in particular whether a discussant named by a respondent during one wave of the survey is named in one or more subsequent waves.

Analysis of the selection process uses a transformed dataset where the unit of analysis is a unique discussant/respondent dyad,

⁷ It was very successful in this respect, reducing the time required to provide basic political discussion network information from around 15 min to around 90 s on average.

⁸ A re-analysis of results from Huckfeldt et al. (2004b) using an alternative method reveals an aggregate decrease in disagreement over time (Anonymized, 2011).

⁹ 13% of the discussants are spouses, 28% are other family members, and 18% are good friends with someone else on the list.

as described in Table 2.¹⁰ The analysis follows the multilevel or hierarchical modeling strategy with personal networks as dependent variables (van Duijn et al., 1999), nesting discussants (or dyads) within main respondents to account for respondent-level variation in the likelihood of renaming discussants on multiple survey waves. The persistence of dyadic ties (i.e., whether or not a discussant is named again on a later wave) is a binary variable, which we model using logistic regression (Feld et al., 2007).

$$z_{i,j} = \begin{cases} 1 & \text{if discussant } j \text{ is named more than once} \\ 0 & \text{if discussant } j \text{ is named only once} \end{cases}$$

$$P(z_{i,j} = 1) = f(\text{relationship}_{i,j}(\text{spouse, family, close friend}), \text{dyad disagree}_{i,j}, \text{political interest}_i, \text{partisan strength}_i, \text{discussants}_i, \text{waves}_i, \epsilon_i, \text{first wave}_j, \text{dyadic interactions}, \text{political interactions})$$

The third step moves from selection to influence, with the unit of analysis shifting back from the dyad to the respondent. Our approach sidesteps the significant recent methodological controversy over approaches to estimating network-based influence (Lyons, 2011; Noel and Nyhan, 2011), with multiple criticisms of the pioneering work of Christakis and Fowler (2007). Critics argue that Christakis and Fowler’s approach to social influence underestimates the impact of selection or homophily on the creation of similarity in friendship networks, largely because variables that may lead both parties in a dyad to adopt shared attitudes or behaviours are potentially missing from the estimated model of influence. Noel and Nyhan (2011) show that failing to account for factors that influence homophily via the “unfriending” problem can produce biased estimates when respondents are more likely to “unfriend” discussants with whom they disagree. However, this particular issue is not applicable to our data given that we do not find a clear pattern where most respondents drop discussants with whom they disagree.

Our approach to modelling influence largely avoids these issues, however, as we make choices that both reflect our theoretical commitments to non-motivational conditional choice dynamics, and attempt to avoid known issues via first-differencing. First, we use a different basic approach from Christakis and Fowler, who use a lagged dependent variable plus social network information to predict party choice in the current time period. The dependent variable we use is whether the main respondent’s vote choice in the present (time t) differs from that provided on the previous wave ($t - 1$). This model isolates information from two subsequent waves of the survey, and allows us to assess whether level of disagreement in political networks (0–100%) during one wave ($t - 1$) predicts vote change on the following wave. This modelling approach is similar to first-differencing, and thus is likely to yield inefficient estimates but ones that are insensitive to time-invariant omitted variables (Greene (2011)). In order to produce unbiased estimates, we only need to include in our model variables that might affect vote choice instability, not variables that affect the partisan content of the vote choice, as indicated below.

$$z_{i,t} = \begin{cases} 1 & \text{if } y_{i,t} \neq y_{i,t-1} \\ 0 & \text{if } y_{i,t} = y_{i,t-1} \end{cases}$$

¹⁰ Discussants who are named in the final wave and discussants named by main respondents who only participate in one wave of the survey have no opportunity to appear at least twice, and are therefore excluded from the analysis.

$$P(z_{i,t} = 1) = f(\text{net disagree}_{t-1,i}, \text{political interest}_i, \text{vote choice strength}_{t-1,i}, \text{wave}_t, \epsilon_i)$$

Second, we do not treat the change in vote choice as a directional variable, meaning that our model does not contain information about whether a respondent switches to be more or less like his or her discussants. Looking only at whether or not a subject changed his or her vote choice (instead of whether or not friends share similar party preferences) eliminates many issues that might arise when using cross-sectional panel data, particularly as we look only at the binary outcome of vote switching instead of transitions to and from one party choice to another (Jackman and Vavreck, 2010). The choice of a non-directional dependent variable is consistent with a conditional choice process with an unspecified conditional rule distribution, rather than traditional notions of directional influence akin to peer pressure.

To illustrate, it may be that a respondent has discussants who are split between supporting candidates A and B, and that the respondent therefore changes his or her vote choice from supporting candidate B to supporting candidate C. We make no assumption that respondents change their vote in order to increase agreement within their network. We are only testing the prediction that vote choice instability will increase when the focal actor experiences disagreement within her network. Thus, our test of influence makes no assumptions as to the form or motivational mechanisms underlying the increased vote choice instability. Treating non-directional vote switching as the dependent variable eliminates many of the concerns that arise from specifying the functional form of the conditional dependence of decision rules, particularly the concern that other omitted variables might drive changes in both the choices of the focal actor and his or her network partners.

Our approach advances previous research (Huckfeldt and Sprague, 1995; Kenny, 1998) that studies a change in vote choice between two points in time, as the structure of the data provides 1 to 3 observed transitions per respondent with unique network data at each time point. Thus, we are able to use a hierarchical linear modelling approach to control for other unobserved sources of individual and aggregate level variation in the propensity to switch parties. First, there may still be some unobserved factors that make some main respondents more likely to switch parties than others. We therefore include a term for random effects associated with each respondent. Additionally, there may also be unobserved factors that make all respondents more likely to change their mind at certain points in the election. For example, during the 2010 UK election there was an aggregate-level decrease in the proportion of voters reporting that they intended to vote for the Liberal Democrats shortly before the election. Therefore, we directly incorporate the impact of time by including fixed effects for each panel wave.

4. Results: Engagement (Dropout and Network Size)

We begin by assessing the potentially confounding issue of conflict leading to disengagement. It may be that main respondents who experience political disagreement during political discussion do not merely choose to avoid future conversations with particular discussants, but instead stop discussing politics altogether. Previous work suggests that political conflict may have a more generally depressing impact on political engagement and subsequent willingness to discuss politics with anyone (Mutz, 2002). If conflict drives political disengagement, by increasing either the likelihood of survey attrition or the likelihood of naming fewer discussants in the future, any estimates of the impact of disagreement on selection and influence may be biased. Non-random survey dropout

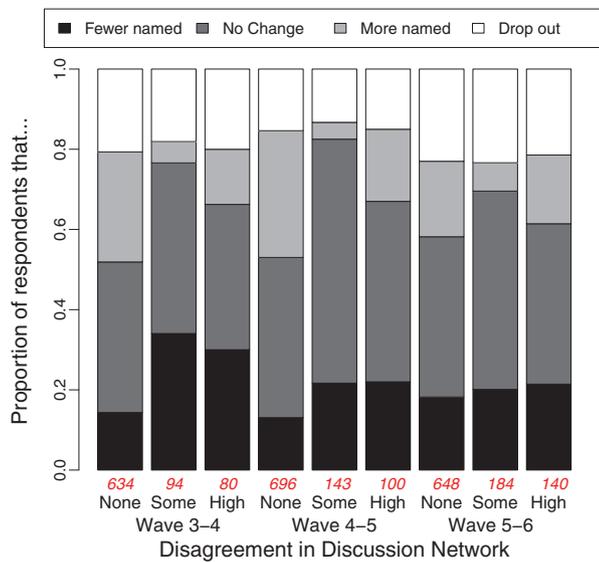


Fig. 1. The impact of disagreement on subsequent network size and attrition.

(including intermittent cases where respondents later return to the panel) is one of the most significant threats to the use of panel data, although we find no evidence that non-random dropout is likely to be an issue in the remainder of the analysis.

Fig. 1 provides some basic insight into the process, describing the distribution of respondents who disengage (either by dropping out of the survey or naming fewer discussants) conditional on the amount of political disagreement they reported in the previous wave (none, low or high).¹¹ Respondent-level data suggests that respondent engagement is affected by the experience of political disagreement with discussion partners, but the impact does not run in the expected direction, nor is the impact necessarily linear.

Respondents who report no political disagreement with their discussants are on average almost 50% (9 percentage points) more likely to name fewer discussants on the following wave than those who experience high levels of political disagreement. In other words, disagreement can encourage sustained political discussion instead of discouraging it. Respondents who experience only moderate levels of acknowledged disagreement (less than half of named discussants), are less likely than those who experience either no or high levels of disagreement to name more discussants in the following wave of the survey. Thus, it would appear in the simple bivariate analysis that high levels of political disagreement actually encourage discussion relative to purely consensual political contexts, although there is a non-linear trend and there may be a slight negative impact of more moderate levels of disagreement.

Fig. 1 also shows that disagreement has no significant impact on survey drop out rate. Drop out (including intermittent dropout) rates are relatively steady at around 20% across all levels of reported political disagreement and on all survey waves. YouGov works hard to recruit intermittent drop-outs back into the panel for future waves, a practice that was largely successful and that may contribute to the lack of a relationship between disagreement and future survey participation.

No relationship between disagreement and engagement can be found even in multiple variable analysis with controls for other

factors such as political interest, strength of partisanship and demographics such as gender, age and education. There is some evidence that attrition may be conditional on strength of political identity, as leaners are more likely to dropout of one or more survey waves although the difference is only marginally significant ($p \approx 0.10$). However, the substantive impact of identity strength is relatively small, with 42% of non-participants having reported that they were only leaning towards a party in the previous round, compared to 37% of respondents who did return for the following wave.

Finally, we checked for systematic differences in our ability to predict selection and influence (as described in the following sections) between respondents who failed to participate in the following survey wave and those who continued to take part. We could find no difference in the average residuals between the two groups of respondents, further confirmation that estimates of the social selection and influence process are unlikely to be biased by panel attrition.

5. Results: Selection

Having seen that political disagreement does not have a negative impact on the main respondent's level of political engagement (and may even have a positive impact on discussion network size), we move on to consider selection, or the impact of dyadic political disagreement on the likelihood that a particular discussant is named on a later wave of the survey.

Looking solely at the bivariate relationship, it would appear that respondents sometimes selectively drop discussants who disagree with them, although the substantive impact of selection is small. Over three quarters of all discussants do not have acknowledged disagreement with the main respondent, and just under half of those (49%) are named as a discussant at a later date. The smaller number (22%) of discussants who are initially acknowledged as having a different partisan preference are slightly less likely (44%) to be named at a later date, although this difference is only borderline statistically significant ($p < 0.05$).

However, there may be additional differences that contribute to this observed pattern that should be taken into account. As noted earlier, discussants who disagree with the main respondents are less likely to be close friends, and therefore less likely to be named in the future because they are not as close to the main respondent. It is also possible that main respondents whose friends and family disagreed with them simply dropped out of the survey, and thus had fewer opportunities to name their discussants on other waves of the study.

To control for other potential explanations of dyadic persistence, we first transform the basic discussant dataset to align information on whether the dyad appears at each of three time periods, t , (i.e., waves 4, 5 and 6) with information about whether dyadic disagreement was acknowledged during the previous time period, $t - 1$ (i.e., waves 3, 4 and 5). We then use a multilevel modelling strategy to account for characteristics of the dyadic relationship and attributes of the main respondent (Snijders and Bosker, 1999; de Miguel Luken and Tranmer, 2010; Lubbers et al., 2010).

Results from three models that increase in complexity appear in Table 3, adding in measures of Dyadic Interactions in model 2 and of Political Interactions in model 3.¹² While the Dyadic Interactions model is borderline in terms of outperforming the most simple model ($p < 0.06$), the Political Interactions model is clearly superior to the other two ($p < 0.01$) at accounting for the observed

¹¹ This measure is computed as the number of discussants who disagree divided by the total number of discussants named on the prior wave. Respondents who name no discussants or report that no discussants disagree fall into the category *none*, Rs who report that half or fewer of their discussants disagree are in the category *some*, while the remainder of Rs are coded as experiencing *high* disagreement.

¹² The selection model in Table 3 includes the traditional variables of partisan identity strength and political interest, but the basic results were robust to other measures of political identity and political engagement. Full results are available from the corresponding author.

Table 3
Effect of disagreement on the likelihood of repeated presence in the network.

	No interactions		Dyadic interactions		Political interactions	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Relationship variables						
Spouse	2.082 ⁺	(0.131)	2.027 ⁺	(0.139)	2.037 ⁺	(0.14)
Family	0.919 ⁺	(0.092)	0.996 ⁺	(0.105)	0.997 ⁺	(0.105)
Friend of others	0.228 ⁺	(0.108)	0.279 ⁺	(0.125)	0.271 ⁺	(0.126)
Dyadic disagreement	-0.062	(0.093)	0.038	(0.137)	0.513 ⁺	(0.299)
Main respondent attributes						
Political interest	0.005	(0.156)	-0.002	(0.156)	0.147	(0.172)
Party strength (weak)	(Omitted)		(Omitted)		(Omitted)	
Party strength (moderate)	0.015	(0.091)	0.021	(0.091)	-0.087	(0.102)
Party strength (strong)	-0.025	(0.156)	-0.025	(0.156)	0.009	(0.173)
Relationship interactions						
Spouse × Disagreement			0.718 ⁺	(0.427)	0.764 ⁺	(0.428)
Family × Disagreement			-0.373 ⁺	(0.22)	-0.353	(0.22)
Friend of others × Disagreement			-0.2	(0.242)	-0.21	(0.243)
Political interactions						
Political interest × Disagreement					-0.849 ⁺	(0.358)
Party strength (moderate) × Disagreement					0.536 ⁺	(0.207)
Party strength (strong) × Disagreement					-0.183	(0.355)
Controls						
First wave discussant appears	-0.544 ⁺	(0.05)	-0.543 ⁺	(0.05)	-0.546 ⁺	(0.05)
Ave. number of discussants named per wave	0.39 ⁺	(0.036)	0.392 ⁺	(0.036)	0.397 ⁺	(0.036)
Total waves main respondent participates in	0.261 ⁺	(0.059)	0.263 ⁺	(0.059)	0.257 ⁺	(0.06)
Constant	-0.915 ⁺	(0.352)	-0.955 ⁺	(0.352)	-1.016 ⁺	(0.356)
Dyads	3649		3649		3649	
Main respondents	723		723		723	
Deviance	4390		4383		4370	

⁺ Significant at the 90% level.

^{*} Significant at the 95% level.

variance in relationship persistence, and thus is the basis of most of the subsequent discussion.¹³

The primary result is that respondents do not uniformly avoid discussing politics with friends and family members who hold different political views. Some respondents do appear to select discussants on the basis of partisan preferences, but negative selection for shared preferences appears to be roughly counterbalanced by positive selection for diversity among discussants. Unexpectedly, respondents with low levels of political interest are significantly more likely to retain discussants with whom they disagree than those who hold the same views. Also unexpectedly, spouses who disagree are slightly more likely to be named at a later point in the survey than spouses who hold similar political views. Note that this does not mean that respondents have selected their spouses, family members or friends on the basis of political views, but only that they report having discussed politics with particular individuals repeatedly during the election.

We also find that the nature of the relationship between the respondent and the discussant matters, and often interacts with disagreement in potentially surprising ways. Spouses and family members are more likely to be retained as political discussants than other friends, even close friends. More notably, respondents are more likely to continue discussing politics with spouses who hold *different* political views when compared to spouses who hold the *same* view (see columns 2 and 3 of Table 3). Spouses who do not support different parties are expected to re-appear in the network 80% of the time, while those who disagree with their partners are named again 93% of the time. The substantive impact of relationship status on the possibility of retention is graphically presented in Fig. 2 (based on predicted probabilities from the Political Interactions model).

At low levels of political interest, dyadic disagreement generally has a *positive* impact on the likelihood a discussant will be named again in later survey waves, with this effect approaches traditional levels of statistical significance ($p < 0.10$) although the substantive size of the effects depends on the nature of the dyadic relationship. Respondents are less like to continue discussing politics with other family members who support an opposing party, but the estimated substantive impact is small: 58% of family members with an acknowledged disagreement are retained vs. 61% of those who agree. The estimated substantive impact of disagreement within close relationships is positive for disagreement (40% vs. 47%), but the impact is not statistically significant.

Our results suggest that respondents do not respond uniformly to disagreement in close friendships: respondents in safe, stable relationships, or alternatively, relatively loose-knit relationships, may increase discussion while others in more fragile intimate relationships may try to avoid political talk. Overall, it appears that respondents continue to discuss politics with friends and family, regardless of whether or not they disagree with them. Optimistically, this suggests that people may enjoy and pursue political discussion involving disagreement when it is a relatively safe topic of conversation.

Our most surprising results can be observed by isolating the impact of respondent political identity and interest on the likelihood of retaining discussants with whom they disagree. We expected to find that strong partisans with high levels of political engagement would be more likely to actively select against political disagreement, and this expectation was confirmed. Strong partisans with high levels of political interest are more likely to retain political discussants with whom they agree (see Table 3 and Fig. 2). The impact of the most potent combination in favour of selection is fairly substantial: a strong partisan with high political interest who disagrees with a weak-tie discussant is predicted to have a 26% chance of naming that discussant later, as compared to a 38% chance if he or she did not acknowledge a disagreement with the

¹³ Based on a comparison of the three models using a deviance test distributed chi-squared with k degrees of freedom, as detailed by van Duijn et al. (1999).

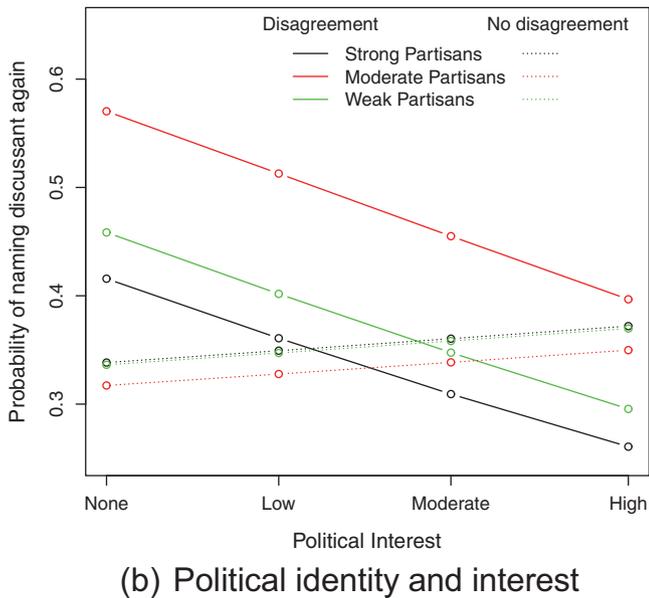
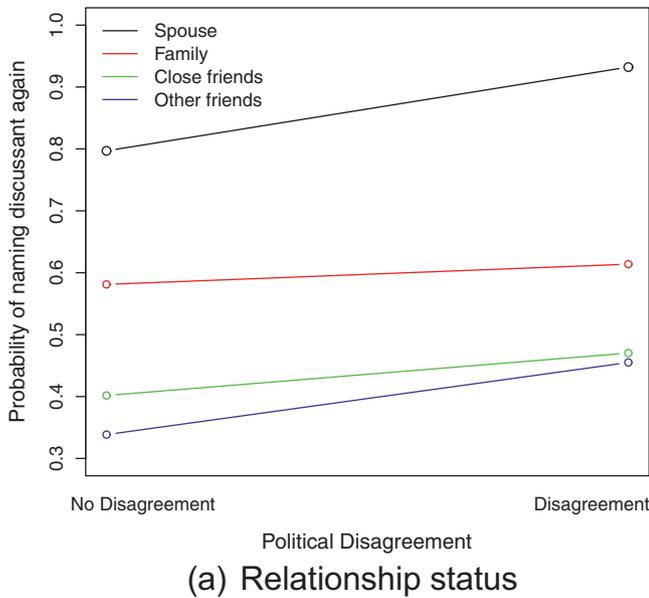


Fig. 2. Impact of (a) relationship status and (b) individual political attributes on discussant retention.

same discussant. Thus, we find clear evidence that some people do select discussants based on political preferences during an election season.

However, this does not mean that selection for political homophily is widespread, as not all respondents select for political agreement. Instead, most respondents appear to select for political disagreement, as suggested earlier in our discussion of the impact of dyadic disagreement and relationship status. That is to say that most respondents appear to be more likely – not less likely – to retain discussants with whom they disagree. Moderately strong partisans are particularly likely to retain discussants with whom they disagree. For example, moderate partisans with no or low political interest are estimated to be almost twice as likely to retain a discussant with whom they disagree as opposed to one with whom they agree (57% vs. 32%, and 51% vs. 33%).

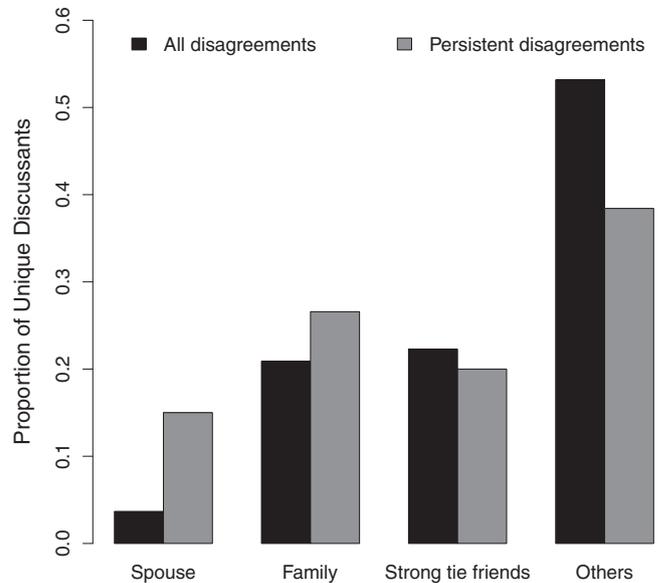


Fig. 3. Sources of overall and persistent disagreement in political discussion networks.

Our findings also shed new light on previous work finding that disagreement is most common among peripheral contacts, such as co-workers (Mutz and Mondak, 2006). For example, Faas and Schmitt-Beck (2010, p. 110) conclude:

By discussing politics with family or friends, people can weave themselves into a protective cocoon where their views tend to be confirmed rather than challenged. Quite the contrary is the case for secondary relations: discussing politics more often with co-workers or neighbors leads to intensified experiences of disagreement.

These claims are true of political discussion at a single point in time, but our findings suggest a major caveat is in order. At any given moment, people are more likely to agree with close friends and family than with more peripheral contacts. But a single snapshot of political discussion obscures the nature of political discussion over time, and the important role played by core network members in the maintenance of democratic diversity and disagreement. Close friends and family are a significant source of *persistent* disagreement in political networks. Even though family members are less likely to disagree, family members who disagree are more likely to re-appear in the network over time.

Fig. 3 breaks down sources of disagreement among all discussants named at least once, and compares this to sources of disagreement among discussants who are named more than once. Non-family contacts make up 70% of unique discussants who disagree with the main respondent, and weak tie friendships comprise almost half of all discussants with an acknowledged disagreement. Now, compare this to the sources of persistent disagreement, or disagreement with contacts that appear in the discussion network more than once. Family contacts are the single largest source of persistent disagreement, with the combined categories of spouse and family comprising over 40% of discussants who disagree with the respondent yet are still named more than once. Spouses comprise only 7% of all discussants who disagree at any given point, but over 15% of persistent discussants who disagree with the main respondent. Meanwhile, weak tie friendships are the source of persistent disagreements in less than 40% of all cases, largely because weak ties are less likely to be retained as active political discussants.

6. Results: Influence

Moving on, we consider what happens to main respondents who are exposed to political disagreement: does exposure to disagreement increase the chances of the main respondent changing his or her vote choice? If respondents are making conditional decisions that depend on the choices of those around them, we would expect that respondents who are exposed to disagreement would be more likely to switch parties at a later point in time, all else being equal. Our analysis looks for traces of the conditional choice process of social influence using a dataset where the unit of analysis is a single main respondent interviewed on more than one occasion, as described in Table 1.¹⁴ These data are then transformed to align the party choice of the respondent at time t (waves 4, 5 and 6), with respondent party choice, network disagreement and partisan identity strength at time $t - 1$ (waves 3, 4 and 5).¹⁵

There appears to be a simple bivariate relationship between network disagreement and likelihood that a respondent will switch his or her vote choice during the 9 months prior to the election. Approximately 1 in 4 respondents changed their vote choice during the study.¹⁶ Respondents who reported at least some disagreement in their political networks at any point in time were more likely to switch party than those who never reported any disagreement (28% vs. 21.5%). However, this simple statistic does not take into account the temporal nature of social influence, as our model of influence requires that disagreement come before vote change and not after.

The temporal nature of influence is partially addressed by Fig. 4, describing what proportion of respondents change their vote between one wave (at time t) and the following wave (at time $t + 1$), dependent on the number of discussants with whom they acknowledged disagreement in the first time period (t). Respondents who claim to have already decided who they will support in the election are less likely to change their minds than respondents who indicate they are merely leaning towards one party or the other.

Nonetheless, even decided voters are more likely to change their vote choice when facing high levels of political disagreement, while leaning voters facing both moderate and high levels of disagreement are more likely to switch parties. On average across both decided and leaning voters, respondents who report high levels of disagreement with their discussants are significantly more likely to switch party choice in the following period than respondents who report no disagreement with their discussants (11% vs. 16%). Also noteworthy is the fact that indecisive respondents (i.e., those who do not indicate which party they are leaning towards) who do not disagree with any of their discussants are more likely than those who do not agree with one or more of their discussants to have made a definite party choice by the next survey wave.

Even this slightly more complex relationship may be misleading, however, as respondents with higher levels of political interest are known to exhibit higher levels of opinion instability (Zaller, 1992). Therefore, we use hierarchical linear models, with individuals nested in time periods, to estimate the relationship between individual and network attributes and vote switching.

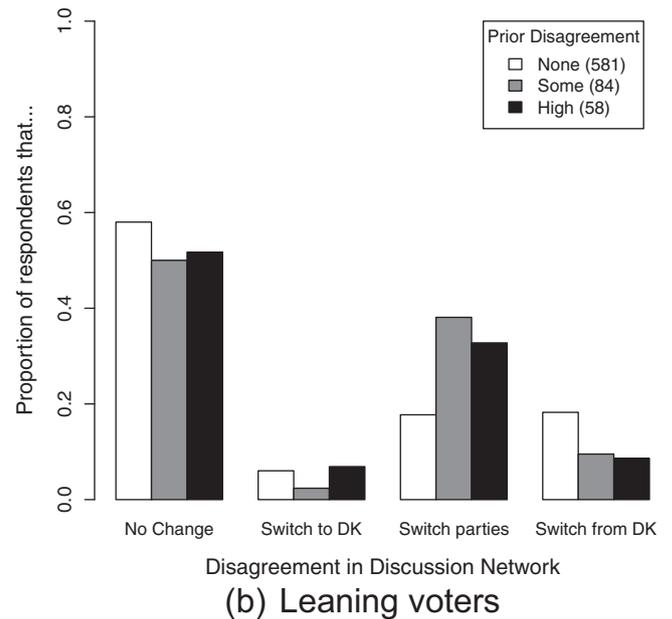
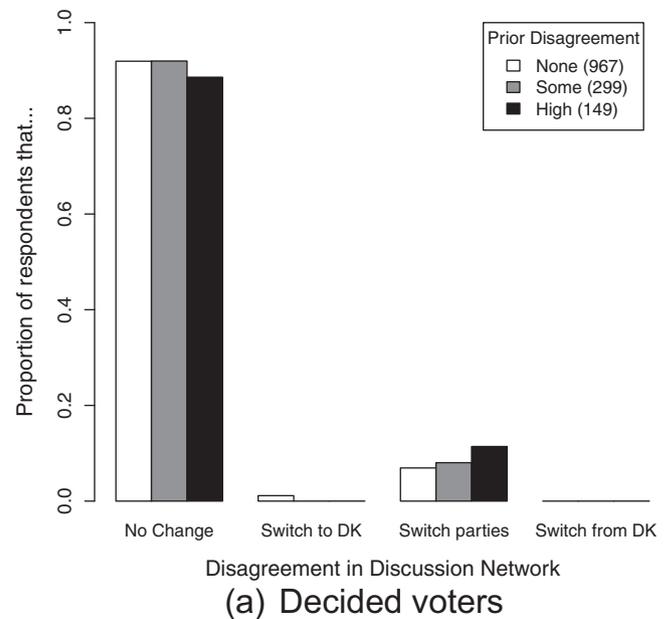


Fig. 4. Change in respondent vote choice following experience of disagreement: (a) decided voters and (b) leaning voters.

Results from three models that increase in complexity appear in Table 4, with measures of Network Disagreement added in model 2, and Political Interactions added in model 3. While the Network Disagreement model clearly outperforms the Base model ($p < 0.01$), the Political Interactions model is at best borderline significant in terms of explained variance when compared to the Network Disagreement model ($p < 0.10$).¹⁷ Looking carefully at our estimates, we suspect that there may be an interaction between individual political interest and network disagreement, but that vote switching is rare enough in our data to render the observed effect only borderline statistically significant.

¹⁴ Main respondents who only participate in one wave of the survey have no opportunity to change their mind and are therefore excluded from the analysis.

¹⁵ All results were also robust to inclusion of respondents who intermittently dropped out of Wave 4 or Wave 5 and then returned the following wave, with change assessed between the two relevant waves (i.e., changes between Waves 3 and 5 or Waves 4 and 6).

¹⁶ This includes only respondents who participate in at least two waves of the survey; party switchers are those who indicate an intention to vote for a particular party, or who indicate that they are leaning towards a particular party, and later indicate a different party.

¹⁷ Based on a comparison of the three models using a deviance test distributed chi-squared with k degrees of freedom, as detailed by van Duijn et al. (1999).

Table 4
Models of party switching.

	Base model		Network disagreement		Political interactions	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Main respondent attributes						
Political interest	1.15*	(0.48)	0.82*	(0.47)	0.50	(0.52)
Leaning voter	1.78**	(0.22)	1.74**	(0.22)	1.57**	(0.25)
Political network disagreement						
Prior wave network disagreement (0–1)			2.72*	(1.12)	0.38	(1.77)
Prior wave network disagreement ²			–2.58*	(1.27)	–2.75*	(1.32)
Political interactions						
Interest × Disagreement					2.88	(1.85)
Leaner × Disagreement					1.11	(0.72)
Survey wave						
Wave 5 pre-election	0.61**	(0.22)	0.65**	(0.22)	0.66**	(0.22)
Wave 6 post-election	0.60*	(0.24)	0.59*	(0.24)	0.59*	(0.25)
Constant	–5.06**	(0.40)	–4.92**	(0.38)	–4.72**	(0.41)
Random effects						
	Base model		Network disagreement		Political interactions	
	Std. Dev.	S.E.	Std. Dev.	S.E.	Std. Dev.	S.E.
Main respondents	4.29	2.07	3.75	1.94	4.2	2.00
	Base model		Network disagreement		Political interactions	
	<i>n</i> = 961		<i>n</i> = 957		<i>n</i> = 957	
Deviance	1448		1422		1417	
<i>n</i>	2152		2128		2128	

* Significant at the 90% level.

* Significant at the 95% level.

** Significant at the 99% level.

Our primary result is that respondents with politically diverse discussion networks are more likely to change their vote choice at a later point during election season, even after controlling for the primary respondent's political interest and political identity strength. Reported network disagreement has a non-linear effect on the likelihood that a respondent will switch vote choice at a later point during election season, although committed partisans are far less likely to switch their vote choice than respondents who are only leaning towards a particular party. Looking first at the Network Disagreement model, we see that respondents who report having one or more discussants who hold different partisan preferences on one wave of the survey are more likely to switch their vote choice by the next wave of the survey. This effect is not a strictly linear response to the proportion of discussants who disagree with the respondent, but peaks around the majority focal point of 50% disagreement.¹⁸

We expected to find that respondents would vary in their tendency to be influenced by network disagreement, with stronger partisans and more engaged citizens being more resistant to influence. Somewhat surprisingly, however, the impact of network disagreement on vote switching does not depend significantly on respondent political interest or political commitment, although our lack of confidence in the estimated coefficients is largely driven by the sparsity of data in the relevant categories. The Political Interactions model incorporates interaction terms between political disagreement and political interest and identity commitment. Both interaction terms are positive, though just short of statistical significance.¹⁹ The trend in the data is for politically

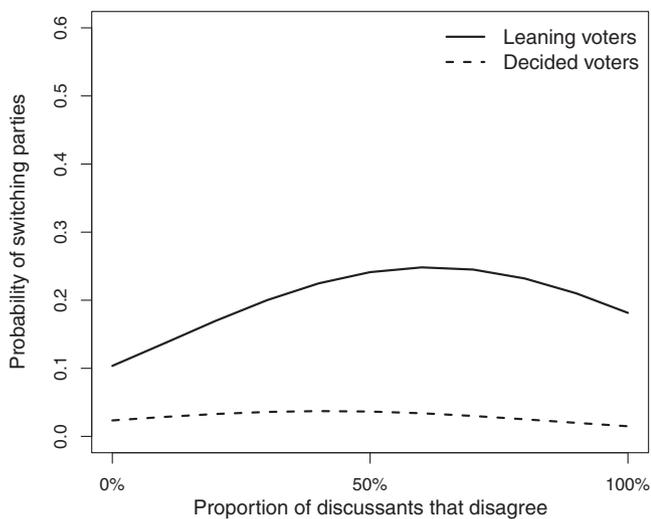
engaged respondents to be more likely to shift their party choice in response to disagreement with discussants than those who are less interested in politics. Furthermore, less politically committed respondents who are only leaning one direction or the other are also more influenced by their discussants than stronger partisans. Disagreement may even strengthen the resolve of respondents who are strongly committed to their party of choice, or those who are not particularly interested in politics anyway. Political interest no longer has a significant independent impact on party switching once we account for its role in mediating the impact of disagreement.

Overall, these results are consistent with the dynamics of conditional choice, or influence, in the formation of political attitudes and vote choice, even during the short time span of the nine month period leading up to an election. The experience of disagreement in political discussion networks makes citizens more likely to change their vote choice at a later point in time. Traces of this social influence process can be observed even after accounting for the main respondent's own level of political engagement and commitment, and may be slightly stronger among those with less firm political identities and high levels of political interest.

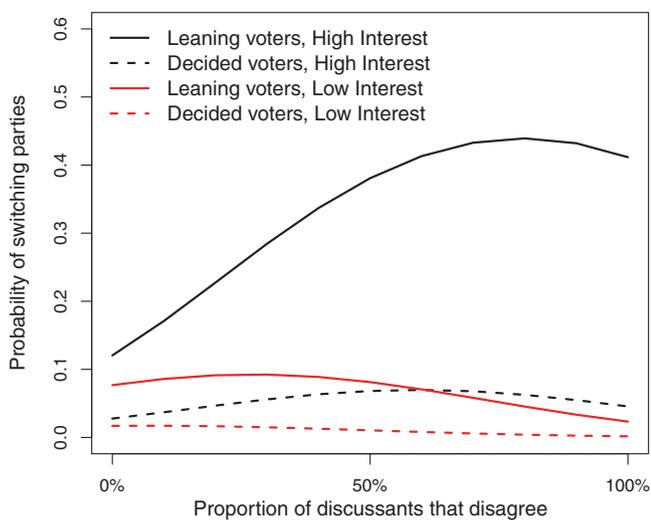
error on the linear disagreement fixed effect term increases by 50% between models 2 and 3, due to a high correlation with the political interest interaction ($r = 0.75$) and simple quadratic term ($r = 0.55$). There are only 16 respondents with low levels of political interest who report disagreeing with at least one of their discussants, and thus the model struggles to fit the simple linear term (see the downward slope of low interest leaning voters in Fig. 5). If the linear disagreement term is omitted, the interaction with political interest is significant ($p < 0.01$). The size of the substantive impact of the interactions is robust and often statistically significant under alternative specifications and estimation strategies, please contact the corresponding author for further information.

¹⁸ Comparisons of the two disagreement response functions confirm that the non-linear specification is preferable ($p < 0.01$).

¹⁹ Both interactions are just shy of statistical significance ($p < 0.12$) due to a combination of multicollinearity and sparsely populated data categories. The standard



(a) Disagreement



(b) Political identity and interest

Fig. 5. Impact of (a) disagreement and (b) individual political attributes on vote switching.

7. Conclusion

This paper is a contribution to the ongoing attempts to disentangle the relative contributions of selection and influence to creating the high levels of observed similarity among political discussion partners. Our contribution is limited in scope: we look only at the dynamic operation of influence and selection during the nine month period prior to the 2010 UK election, a period during which the available pool of discussion partners for any particular respondent is likely to remain quite stable. Thus, we expect that our results vastly underestimate the prevalence of both processes in the co-evolution of political opinions and political discussion networks, over a longer span of time. Furthermore, we would not necessarily expect to find that selection and influence operate similarly over both the long and short term. Nonetheless, the results in this paper call into question several aspects of the conventional wisdom about political disagreement, selection, and influence.

First, we found only limited evidence that people preferred to discuss politics with partners who shared the same political preferences. In line with earlier research (Klofstad et al., 2009), we

found that most people discussed politics with the same people with whom they discuss other important matters: spouses, close friends and family members. While strong partisans were less likely to name discussants with whom they disagree at later points during the election, most respondents were actually *more* likely to name respondents with whom they disagreed. Thus, any negative selection in favour of similar discussants on the part of some respondents was effectively counterbalanced by positive selection for diversity among the majority of respondents.

Strikingly, we found that political disagreement within some close relationships actually encourages ongoing political discussion instead of squelching it. As a result, spouses and family members contribute far more to exposure to sustained disagreement with political discussants than would be suggested by a cross-sectional survey. Workplace discussion may be the most frequent source of disagreement at any single point in time (Mutz, 2002), but such studies may miss the crucial insight that political disagreements in close relationships are persistent and encourage high levels of meaningful political discussion. People in the workplace and other peripheral contacts are more likely to disagree with the main respondent, in our findings as well as in the earlier literature. But we also show that these discussants are much more likely to drop out of the network as well. Thus, we find that political disagreement with family members is the primary source of *persistent* disagreement.

Finally, we found evidence to support the claim that vote choice is characterized by the dynamics of conditional decision-making, or influence. Respondents who report disagreeing with one or more of their named political discussants on one wave of the survey are considerably more likely to report having changed their vote choice on the subsequent survey wave. All else being equal, respondents who report that they are only leaning towards their chosen party, in particular those who have moderate levels of political interest, are more likely to be affected by network disagreement than more committed partisans.

Perhaps surprisingly, the observed processes of selection and influence do not produce a net increase in political agreement at the aggregate level, however. While the stability of aggregate level disagreement during an election has been reported in prior research (Huckfeldt et al., 2004b), it is worth highlighting again as it runs counter to one of the primary predictions of the Columbia School model of politics. Lazarsfeld et al. (1968) expected for elections to stimulate discussion and lead to increased agreement among friends and family members, and that outside of election period the high levels of agreement forged during an election would gradually subside. However, we find that reported agreement does not increase during an election. As soon as disagreement in one dyad is eliminated, new disagreements emerge and become acknowledged. It appears that social influence may contribute a great deal towards the forging of agreement in discussion networks, but neither selection nor influence eliminates exposure to political disagreement in close relationships during the campaign season.

Acknowledgements

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