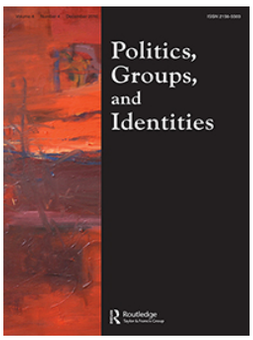

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Sex differences, personality, and ideology: a deeper investigation via contexts in a study of local politics

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There is a puzzle in existing research literatures. Some studies suggest that sex differences impact political attitudes and behaviors, others contend there are sex differences in personality, and still other research implies that personality underpins political attitudes and behaviors. Despite empirical trends and studies suggesting tendencies that underpin behavior, there is no theory to suggest how sex, personality, and ideology are related to political behavior. We attempt to wrestle with this puzzle utilizing data from a study of men and women serving on local boards and commissions. Our findings suggest that, indeed, there appear to be types of people in terms of sex, personality, and ideology who gravitate to service on certain types of boards and commissions, but many of the relationships we identify require an understanding of local context and culture that the existing literatures on sex difference and personality do not speak to. This sets the stage for more nuanced studies of why sex, personality, and ideology may matter for political behavior (and why they may not), as well as the trouble with taking a particular approach to studying political behavior – namely one that focuses on correlations between traits in lieu of a focus on persons and their choices in local contexts.

Keywords: local politics; women and politics; personality; political behavior; gender balance

Introduction

Studies illustrate that when it comes to various political attitudes and behaviors, sex makes a difference (Burns, Schlozman, and Verba 2001; Lawless and Fox 2005; Huddy, Cassese, and Lizotte 2008). There are also studies that have considered the role of personality in civic engagement as well as successful public service (Hanbury, Sapat, and Washington 2004; Feeney and Boardman 2011; Lambright and Quinn 2011) as well as attitudes, such as political ideology (Mondak et al. 2010) and party identification (Gerber et al. 2011). How sex and personality separately may influence political attitudes and behavior has been studied extensively, but the existing literature does little to clarify exactly how sex and personality actually impact political behavior. What are we missing?

In this paper, we attempt to wrestle with this puzzle and use an empirical test of survey and observational data as an illustration. We proceed by briefly reviewing the existing research on sex differences in personality, personality differences in political ideology and behaviors, and sex

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differences in ideology – noting that empirical results are often equivocal and thus theoretically confounding. We note this is particularly the case if we take the findings as a whole and attempt to make sense of when sex, personality, and ideology impact political behavior. We then introduce data collected from surveys of women and men serving on local boards and commissions in Iowa – the first state to pass a gender balance law in the USA. In our analyses we find that although men and women differ on some measures of personality, and some measures of personality correspond with ideology, these findings are only meaningful if we take into account other characteristics as well as the type of board or commission individuals are serving on. For this unique data set, this suggests that people self-select onto boards where they are more likely to share beliefs and values with other members, but those beliefs are not necessarily those captured by personality and ideology measures often used by political scientists. Self-selection onto these boards sometimes results in an imbalance of men and women as well, but we contend that has to do with what the purpose of the board or commission is, as well as personal choices and motivations our survey did not assess.

Our empirical test is merely one attempt to illustrate why we see the empirical and theoretical puzzle in the existing literatures (there are arguably many others), but we contend go beyond illustrating the confounds and also point the way to shifting our conceptual orientation away from assuming that traits or attitudes are related to behaviors apart from contexts in which they have meaning for individuals. In other words, as a discipline we need to do a better job of situating political action in contexts. Without this move, our empirical findings on measures such as personality, ideology, or even gender will be vacuous. We conclude by urging future research aimed at better understanding local settings and the range of personal choices to engage in political behavior to better contextualize why sex, personality, and ideology might matter for political engagement and why it might not. Anything short of this more careful approach will leave us with empirical inconsistencies and theoretical confounds.

Sex, personality, and political behavior

In "Gender, Public Opinion, and Political Reasoning" Huddy, Cassese, and Lizotte argue that evidence for the existence of sex differences in various political attitudes and behaviors underscores the "need for a deeper theoretical and empirical investigation of such differences" (2008, 31). Though empirically identified differences between men and women are argued to be modest in many cases (Sapiro 2003), the gender gaps on many items are also argued to be consistent and consequential (Huddy, Cassese, and Lizotte 2008). Since the differences between men and women have been traced back to differences in personality (Eagly 1987; Feingold 1994), and personality has been linked to ideology, partisanship, and other political attitudes of interest to political scientists (Mondak 2010; Gerber et al. 2012, 2011), one might opine why a theoretical model has not emerged to suggest the exact relationship between sex, personality, and ideology to explain political behavior?

As political scientists, we tend to favor explaining behavior based either on institutional rules and settings or individual level traits. There may be value in both approaches, but we contend considering these characteristics together, as well as considering local contexts, best sets the stage for understanding that people make choices and take actions in dynamic social settings. The literatures on sex differences in political attitudes and behavior, and the literatures on personality and ideology, mainly utilize data derived from large nationally representative samples pertaining to national level politics. Such data often lack reference to context, such that categories of attitudes or individual traits are removed from socially meaningful settings. A typical practice is to identify an attitude or characteristic (e.g., attitudes about women in politics) and attempt to correlate it to a specific behavior (e.g., vote for a woman candidate) (Dolan and Lynch 2015).

By contrast, in this paper we seek to contextualize how sex, personality, and ideology may or may not matter for political behavior to help illuminate the problems we identify in the existing literature. Our data are drawn from a study that is an exploratory investigation of men and women's political engagement (i.e., serving on appointed local boards and commissions). We consider our work on municipal decision-making bodies not merely unique, but also useful for sorting out this problem of equivocal data and theoretical confounds in the existing literatures.

Sex and personality

A basic feature of individuals, argued to set the stage for forming political attitudes and engaging in political behavior, is personality (Bouchard 1997; Mondak 2010). Personality is thought to be relatively stable throughout an individual's lifetime, and personality scales have been widely used in psychology and political science for many years (see John, Donahue, and Kentle 1991; John, Naumann, and Soto 2008). Although many scales that purport to measure personality exist, many scholars favor the Big Five Index (BFI). Most existing studies in political science use personality inventories with two items measuring each trait (e.g., Mondak et al. 2010; Gerber et al. 2011), such as the Ten-Item Personality Index that is now administered as part of the American National Election Studies. The Dietrich et al. (2012) study of state legislators measured personality using only five items.

The dimensions of personality measured by the BFI are openness, conscientiousness, extraversion, agreeableness, and neuroticism (sometimes called by its reciprocal, emotional stability). Men tend to score higher than women on particular measures of extraversion, especially those emphasizing "assertiveness" more than general sociability, and on the "ideas" component of openness (Goldberg et al. 1998). Women tend to score higher on most measures of agreeableness (Feingold 1994), the "warmth" component of extraversion, and the "feelings" component of openness (Costa, Terracciano, and McCrae 2001). To the extent these tendencies have been repeatedly identified in empirical studies, such differences might be assumed in any studies that further utilize personality to understand political attitudes and behaviors.

Mondak (2010) analyzed the link between gender and the BFI personality dimensions using brief scales (2–6 measures per trait) and found consistently small but significant relationships between sex and three of the five dimensions. Women were significantly more likely to self-report as agreeable and as conscientious, but in contrast with past findings, Mondak also found that women reported higher levels of extraversion than men (80–83). To sum up, literature to date suggest there are small but empirically consistent differences between men and women on at least two of the "Big Five" personality constructs (e.g., Feingold 1994), though there remains disagreement about those differences (see Del Giudice, Booth, and Irwing 2012).[1] Roughly, the literature suggests the empirical differences in personality, as measured by the big five, between men and women as depicted in Figure 1.

Explanations for the differences in men's and women's personalities have included that they are the result of innate biological capacities, due to early childhood socialization where boys and

Sex	Openness	Conscientious	Extraversion	Agreeable	Neuroticism
Women	*(feelings)	**	*(warmth)	**	
Men	*(ideas)		*(assertiveness)		

Figure 1. Empirical differences in BFI between men and women.

girls are taught to attend to different aspects of sociality, or perhaps some combination of the two (Huddy, Cassese, and Lizotte 2008, 33).

Personality and political attitudes/behaviors

During the last few years political scientists have devoted considerably more attention to exploring the possible links between personality, as measured by the BFI, and political behavior (see Gerber et al. 2011 for a review) than the link between sex and personality. The most consistent findings from this literature are that openness to experience is correlated with liberal attitudes and liberal self-identification, while conscientiousness is correlated with conservative issue positions and conservative self-identification (Alford and Hibbing 2007; Carney et al. 2008; Mondak and Halperin 2008; Mondak 2010; Mondak and Hibbing 2011; Gerber et al. 2012). The findings reporting a correlation with personality and partisan identification follow a similar pattern, with conscientiousness correlating with identification with the Republican Party and openness to experience correlating with identification with the Democrat Party (Mondak 2010; Gerber et al. 2011).[2] The empirical regularities between ideology/partisanship and personality identified in the literature are depicted in Figure 2.

Scholars have also identified correlations between big five traits and political participation (e.g., Bekkers 2005). Extraversion, for example, has been found to be correlated with political participation (Mondak et al. 2010; Gerber et al. 2011) as has openness to experience. Conscientiousness has been correlated with lower levels of participation (Mondak et al. 2010, and see Lounsbury, Loveland, and Gibson 2003). The evidence is equivocal for the remaining two traits as across numerous dependent variables, agreeableness produces almost no significant relationship (e.g., Mondak 2010). Gerber et al. (2011) find that higher levels of emotional stability are correlated with more participation in politics, while Mondak et al. (2010) report findings of roughly equal magnitude in the opposite direction. So even if personality measures appear to correlate with some political attitudes, those same measures may correlate with lower political participation. Further, reality suggests that conservatives are no less likely to participate (despite being more conscientious).

Linking sex, personality, and ideology to explain behavior

When the research cited above is brought together with the literature on gender differences on a range of political attitudes and behaviors, the ways in which personality and political attitudes and behaviors are related becomes even less intuitive. In terms of ideology and partisanship, women have been identified in the research as being more likely than men to identify as liberal and

Ideology	Openness	Conscientious	Extraversion	Agreeableness	Neuroticism
Liberal / Democrat	**				
Conservative/ Republican		**			

Figure 2. Empirical differences in BFI between liberal/democrat and conservative/republican.

democrat (Sapiro and Conover 1997; Howell and Day 2000; Carroll 2006). Both men and women exhibit some aspects of openness in the personality literature, however, so is it merely the "warmth" component of openness that makes women more likely to be liberal? This is unlikely as there is weak empirical support for the notion that compassion and empathy are related to women's political attitudes and behaviors (Eagly and Crowley 1986; Jaffee and Hyde 2000). Further, women have been identified in the research as more likely to be conscientious, but not more conservative or republican, than men. And is it only conscientious women who are less likely to participate politically?

Women have also been identified in the research as more likely to report higher levels of religiosity and religious fundamentalism than men, as well as a stronger commitment to religious institutions (Tolleson-Rinehart and Perkins 1989; Walter and Davie 1998). Such findings further confound the attempt to link sex, personality, and ideology to understand political attitudes and behaviors in a meaningful way.

Perhaps even though personality very likely impacts the extent to which individuals attend to certain aspects of social and political life, there is always a social context and dynamic social interaction that people draw on to make choices. What we suggest is that a direct predictive link between personality and political behavior is unlikely, thus, to expect to find a behavioral outcome (e.g., vote choice) from a particular attitude or set of attitudes (e.g., positive view of women in politics) is unlikely (see Dolan and Lynch 2015). Furthermore, despite the power of gender roles and identities, we would also be cautious of any argument that suggests sex is predictive of political attitudes or actions, though we would suggest sex in social and cultural contexts very likely explains the extent to which individuals attend to certain aspects of social and political life.

We now turn to our empirical investigation of how sex, personality, and ideology may, or may not, relate to political behavior. We draw on data from a field study of men and women who serve on appointed boards and commissions in Iowa. As part of this larger field study, we gathered demographic and attitudinal information as well as measured personality via the BFI in a survey of sitting board members. We also attended and observed meetings of boards and commissions and talked with some of the members of these decision-making bodies and other local city officials. We use these survey data in conjunction with what we know about the contexts of the local boards and commissions in order to illustrate that the existing literature is misguided in attempting to predict political activities based on individual characteristics such as sex and personality, as well as categorical data such as political ideology and other political attitudes.

Methods

Sample

To examine the relationship between sex, personality, and ideology and participation in local politics, we utilize our surveys of members of local boards and commissions in Iowa as well as our observations of the board and commission meetings to contextualize why the variables in question may or may not matter. As a potentially important piece of background information, Iowa was chosen as the target of a larger study on gendered group decision-making because in 2009 it became the first state in the USA to require local boards and commissions to be "gender-balanced." The implementation date of the legislation was 1 January 2012, at which time all local boards and commissions were expected to pursue gender balance.[3]

As we discuss below, surveys were collected prior to the 1 January 2012 implementation date. This was done to gauge the variation in gender balance among local boards and commissions prior to the law going into effect. Furthermore, the law does not have a mechanism of enforcement; thus, municipalities were free to begin implementing gender balance at any time if they

did not already have balanced boards. Service on local boards and commissions is completely voluntary in Iowa. Those interested in serving must apply and receive either the approval of the current board members, the mayor, or the city council. In short, Iowa represents a state that has taken an active approach to manipulating sex on municipal decision-making boards. The implication of this empirical investigation, as well as the larger study on sex and decision-making, is that if gender is meaningfully related to personality, ideology, and thus a potential range of political attitudes and behaviors, this law would have a very important impact on the decision-making processes and outcomes of these local boards and commissions and the communities they serve.

A random sample of 20 cities in Iowa was selected for inclusion in the study. City selection was based on a random sort of all cities by region (using congressional district as a proxy) and population. Cities were first sorted by region and then by population. Within each region, four population categories were created (0–1000 = 1; 1001–5000 = 2; 5001–10,000 = 3; over 10,000 = 4). Within each category, cities were then sorted by a random number, with the first city assigned to our study. Of Iowa's 947 incorporated cities, 910 have a population less than 10,000. This randomization process ensured we would observe an appropriate number of such cities. In sum, 20 cities (4 from each population category * 5 congressional districts) were selected.

In total, we observed 50 meetings of local boards and commissions in 18 different cities in Iowa and surveyed the members present at the meetings.[4] Within each selected city, we observed meetings of one to five different boards or commissions common to most cities in the sample: Library boards, Historic Preservation boards, Parks and Recreation boards, Planning and Zoning commissions, and Zoning Boards of Adjustment.[5] Following each meeting, we distributed anonymous surveys to all members of the group present at the meeting with a stamped return envelope. A total of 301 surveys were personally delivered to board members in attendance, 206 of which were returned for an overall response rate of 68%.[6] Planning and Zoning, Historic Preservation, and Library boards had similarly high response rates at 74%, 74%, and 73%, respectively, followed by Zoning Boards of Adjustment and Parks and Recreation boards at 62% and 61%.

The survey consisted of a battery of standard demographic and questions about political ideology and a range of political attitudes, as well as the 44-item BFI. The BFI asks respondents to assess their agreement or disagreement (on a five-point scale) with a series of statements about how they perceive themselves (e.g., "I am someone who tends to find fault with others" or "I am someone who is curious about many different things."). All of the items for a particular Big Five dimension were recoded so that high scores indicate possession of the trait. Our final Big Five measures represent the mean score for each of the relevant BFI items (10 items for openness, 9 for agreeableness and conscientiousness, and 8 for extraversion and emotional stability).

Because we are interested in illustrating the possible relationships between sex, personality, and ideology and political behavior, in our empirical tests the dependent variable is the board or commission. The independent variables are those measured in our surveys mentioned above: sex, personality, and ideology. We also consider age, religiosity, and other demographic and attitudinal variables typical as co-variates in empirical political science research.

Findings

Is there a difference between men and women with regard to service on the boards and commissions?[7] In Table 1 we show that of the 50 meetings attended, 19 were meetings of Planning and Zoning boards and Zoning Boards of Adjustment. As Table 1 indicates, the average percentages of women present at these meetings were 25.7 and 28.8, respectively. Planning and Zoning and

Table 1. Board/commissions by sex.

Type of Board/Commission	Number of meetings	Average % Female
Zoning Board of Adjustment	7	25.71
Planning and Zoning	12	28.83
Parks and Recreation	12	43.66
Historic Preservation	5	50.60
Library board	14	65.59

Zoning Boards of Adjustment (hereinafter PZ and ZA for brevity) meetings can generally be placed in the category of economic development boards. For the 31 other meetings we observed, the average percentages of women at these meetings were 43.7 and 50.6, respectively, for Parks and Recreation boards and Historic Preservation boards (hereinafter PR and HP for brevity). On Library boards women comprised almost two-thirds of the board members in attendance (65.6%).

Based on conversations with members of the Iowa Commission on the Status of Women, as well as several officials in selected cities, that Library boards are dominated by women and economic development boards are dominated by men is not particularly surprising. Just as economic boards are traditionally "men's boards," Library boards are traditionally "women's boards" in Iowa,[8] thus it is not that there is necessarily a dearth of women serving in Iowa, but that their service on municipal boards is not evenly distributed. Our collecting these data prior to the implementation of the law suggests the individuals surveyed had volunteered to serve and likely gravitated to a type of board they were interested in (as opposed to being recruited based on quota motivations due to the law). We do not claim that the variation in gender balance is due solely to personal interest, but merely that there are differences in the gender composition of particular types of boards at the time of our observations.

Is there a difference in political ideology and other demographic characteristics of people serving on the various types of boards? Preliminary analyses suggest that there may be something to the notion that ideology and other demographic characteristics are correlated with service on particular types of boards and commissions (i.e., our measure of political behavior). Table 2 illustrates that respondents serving on PZ and ZA boards were significantly more conservative ($t = 2.45$; $p < .05$), less religious ($t = -2.02$; $p < .05$), and less trusting ($t = 2.23$; $p < .05$) than respondents serving on Library boards. On a five-point scale, respondents on PZ and ZA boards scored more than a half a point higher (more conservative) than respondents on other boards ($M = 3.10$ on PZ and ZA boards compared to $M = 2.56$ and $M = 2.57$ on other boards). Respondents on PR and HP boards were significantly younger, almost five years ($t = -2.24$; $p < .05$), and more religious, a full point on a five-point scale ($t = -3.37$; $p < .01$), than respondents on Library boards. In other words, we identify differences between people serving on different types of boards in terms of basic political attitudes and other demographic characteristics that are typically measured in empirical research in political science. We control for these differences in subsequent analyses and address this variation more fully when discussing personality differences as measured by the BFI.

Since one of the distinctive features of the various board types is the imbalance in favor of either men or women, it is important to examine whether personality differs by sex – something the existing literature is unclear about – and then examine whether personality also varies by board type. In short, we examine whether there is a sex*personality interaction and if so, whether it is correlated with service on particular types of boards.

In Table 3 we present the mean response to the personality indices by sex and types of boards: PZ and ZA, PR and HP, and Library. Perhaps most striking is that we find only one between-

Table 2. Demographics by board type.

		Age[a]	Ideology[b]	Religiosity[c]	Trusting[d]
Planning and Zoning and Zoning Boards of Adjustment	Mean	55.76	3.10**	3.06**	3.07**
	N	71	70	67	70
	Standard deviation	13.10	1.24	1.69	1.29
Parks and Recreation and Historic Preservation	Mean	53.57**	2.56**	2.66***	2.70*
	N	61	61	62	57
	Standard deviation	13.11	1.36	1.70	1.09
Library	Mean	58.54**	2.57**	3.62***	2.61**
	N	70	68	68	70
	Standard deviation	12.26	1.29	1.52	1.13
Total	Mean	56.06	2.75	3.13	2.8
	N	202	199	197	197
	Standard deviation	12.92	1.31	1.67	1.19

Notes: Difference between PR and HP and Library in age is significant ($p < .05$). On ideology, there is a significant difference between PZ and ZA and PR and HP ($p < .05$) and between PZ and ZA and Library ($p < .05$). On religiosity, there is a significant difference between PR and HP and Library ($p < .01$) and between PZ and ZA and Library ($p < .05$). On trusting, there is a significant difference between PZ and ZA and Library ($p < .05$) and between PZ and ZA and Library ($p < .10$).

[a]Age measured in years.

[b]Ideology measured by response to the following question: "In terms of political views, do you consider yourself liberal, conservative, or somewhere in between?" Responses coded on 5-point scale where 1 = liberal; 5 = conservative.

[c]Religiosity measured response to the following question: "Approximately how many times a month do you attend religious services? (0, 1, 2, 3, or 4)".

[d]Trusting measured by response to the following question: "Generally speaking, would you say that most people can be trusted, or would you say that you can't be too careful in dealing with people?" Responses coded on 7-point scale where 1 = Most people can be trusted; 7 = You can't be too careful in dealing with others.

***$p < .01$.

**$p < .05$.

*$p < .10$.

genders difference; on PZ and ZA boards women score significantly higher on the conscientious measure than do the men serving on these boards ($t = -2.72$; $p < .05$). This is consistent with the findings by Mondak (2010),[9] but no other measures are statistically significantly different between men and women (women do score higher on extraversion and openness than men on those boards, but these differences are not statistically significant). On PR, HP, and Library boards, there are no statistically significant differences on any of the personality measures between men and women. This is obviously *counter* to the findings by Mondak (2010) as well as the other scholars who claim there are consistent personality differences by sex across studies (e.g., Feingold 1994).

Turning to within-sex differences (i.e., comparing women to women on the various board types, and men to men on the various board types), we see significant variation. Men serving on PR, HP, and Library boards score significantly higher on the openness measure than men serving on PZ and ZA boards. The mean openness score for men serving on PZ and ZA boards was 3.61 compared to 3.95 for men serving on Library boards ($t = -2.10$; $p < .05$) and 4.03 for men serving on PR and HP boards ($t = -2.61$; $p < .05$). Among women there was a significant difference in conscientiousness. Women serving on PZ and ZA boards reported an average score of 4.49 compared to 4.23 for women on Library boards ($t = 2.00$; $p < .10$).

To further examine the differences between men and women on PZ and ZA boards and between women on PZ and ZA boards and women on the other types of boards, we turn to more sophisticated analyses. Parsing out the descriptive statistics in Table 2 by sex, we find that women on PZ and ZA boards are significantly more conservative than women on PR, HP,

Table 3. Big 5 Personality scores by subject sex and board type (mean responses).

		Extraversion	Agreeableness	Conscientiousness	Emotional stability	Openness
Male	PZ and ZA	3.55 (0.84)	4.14 (1.26)	**4.07† (0.062)**	2.28 (0.71)	**3.61* (0.67)**
	PR and HP	3.55 (0.85)	4.13 (.047)	4.19 (.052)	2.17 (.069)	**4.03* (0.60)**
	Library	3.87 (0.87)	4.14 (0.46)	4.18 (0.51)	2.24 (0.75)	**3.95* (0.56)**
Female	PZ and ZA	3.75 (0.71)	4.22 (.049)	**4.49† (0.40)**	2.28 (0.79)	3.69 (0.72)
	PR and HP	3.70 (0.63)	4.27 (0.50)	4.26 (0.54)	2.33 (0.77)	3.91 (0.48)
	Library	3.56 (0.65)	4.20 (.050)	**4.23* (0.57)**	2.51 (0.55)	3.77 (0.55)

Notes: Means are displayed with standard deviations in parentheses. For PZ and ZA boards ($N = 48$ males; $N = 19$ females for extraversion, agreeableness, conscientiousness, and emotional stability; $N = 47$ men; $N = 19$ women for openness). For PR and HP boards ($N = 24$ men; $N = 34$ women). For Library boards ($N = 22$ men; $N = 44$ women).
Within sex differences:
*Significant difference between men on PZ and ZA boards and men on PR and HP boards in terms of openness ($t = -2.61$; $p < .05$)
*Significant difference between men on PZ and ZA boards and men on Library boards in terms of openness ($t = -2.10$; $p < .05$)
*Significant difference between women on PZ and ZA boards and women on Library boards in terms of conscientiousness ($t = 2.00$; $p < .10$)
Between sexes differences:
†Significant difference between male and female board members on conscientiousness on PZ and ZA boards ($t = -2.72$; $p < .01$).

and Library boards. On a 5-point scale where 1 = liberal and 5 = conservative, the mean response for women on PZ and ZA boards is 3.20 compared to 2.53 for women on PR and HP boards ($t = 2.00$; $p < .05$) and 2.37 for women on Library boards ($t = 2.65$; $p < .01$). Taken with the data above on personality, this suggests women on PZ and ZA boards tend to be more conscientious and more conservative than their counterparts on other types of boards. The other attitudinal variable from Table 2 in which we observe within-sex differences is religiosity. Men on Library boards reported attending significantly more religious services per month compared to men on PR and HP boards ($M = 2.65$ and $M = 3.95$; $t = -2.95$, $p < .01$) and men on Library boards ($M = 2.94$ and $M = 3.95$; $t = -2.61$, $p < .05$). Women on PR and HP boards also reported attending significantly fewer religious services per month compared to women on Library boards ($M = 2.67$ and $M = 3.46$; $t = -2.12$, $p < .05$). Both men and women on Library boards report higher religiosity than those on other boards.

We conducted a multinomial logistic (MNL) analysis,[10] which is typical of empirical political science research, to illustrate how demographic and personality measures may relate to board membership, and whether certain traits correlate with membership on one type of board compared to others. A logit model, while perhaps useful, is incomplete as it does not allow for an analysis comparing predictors of membership across board type.[11] An MNL analysis is useful because it allows us to test whether any of the above-mentioned traits (e.g., sex or the personality measure openness) are correlated with membership on one type of board compared to another type of board. We present our findings in Table 4. [12] Our findings from Table 3 would seem to justify the inclusion of the interactions, and a likelihood ratio test using the "lrtest" command in Stata shows that doing so significantly improves the model fit ($p < .01$).

The MNL analysis shown in Table 4 indicates that there are correlations with membership using all five board types, with Library boards as the comparison group, to the variables of interest. Thus the coefficients represent the effect, in terms of logged odds, of serving on a particular board compared to serving on Library boards. Although not shown in Table 4, we also ran the analysis with three board type groupings (PZ and ZA together, PR and HP together, and

Library, with the latter as the comparison group). Those findings did not differ substantially from those shown in Table 4.[13]

As shown in Table 4, on PZ and ZA boards, demographic measures relating to conservatism, religiosity, trusting, and personality are associated with board membership. On ZA, the most gender imbalanced board in our study, a one-unit increase in the variable conservative (moving from non-conservative to conservative) results in a 21-unit increase in the relative log odds of being on a ZA compared to Library boards ($p < .05$). The inclusion of the interaction terms indicates this relationship is for respondents who scored a 0 on the openness and conscientiousness scales.

For conservatives, a one-unit increase in openness significantly reduces the log odds of being on a ZA compared to a Library board ($p < .01$). For a one-unit change in trusting (moving from not trusting to trusting), there is a 3.04-unit change (decrease) in the relative log odds of being on a ZA versus a Library board ($p < .01$). Turning to PZ boards, the other type of board that is gender imbalanced in favor of men, sex of the board member had a significant effect on membership on such boards compared to Library boards. Being a man significantly increased the relative log odds of being on a PZ board versus a Library board ($p < .01$), and this should be obvious, but the negative and significant interaction term ($p < .05$) implies that higher scores on the conscientiousness scale reduce the log odds of being assigned to PZ boards relative to Library boards for men. For religious respondents, there is a 1.06 decrease in the relative log odds of being on a PZ board compared to a Library board. Higher scores on emotional stability are also associated with a decrease in the relative log odds of being on PZ boards versus Library board ($p < .10$).

While being more conservative (and being a man) significantly increases the relative log odds of being on a PZ and ZA board compared to a Library board, these variables operate differently for the two types of boards that comprise predominately men. When we pool responses from ZA and PZ boards (with Library boards still as the comparison group), the main effects for male and conscientiousness remain significant ($p < .01$ and $p < .10$) as does the interaction for male*conscientiousness ($p < .05$). However, the main effect for conservative is no longer significant at conventional levels ($p = .10$) in the pooled model. So even on what we may want to characterize as a conservative, male-dominated type of board, there is still variation.

The demographic and personality measures we collected in our surveys do not indicate a relationship to PR and HP boards compared to Library boards. Only two measures are significant in predicting membership on PR boards versus Library boards, while only one variable is significant for HP boards. There is a positive main effect for the conservative variable, indicating being a conservative (when openness and conscientiousness equal 0) increases the relative log odds of being on a PR board versus a Library board by 10.20 ($p < .01$). There is also a negative effect for religiosity, where, compared to non-religious board members, scoring higher on religiosity decreases the relative log odds of being on a PR board versus a Library board by 0.97 ($p < .05$). The interaction term for conservative*openness is marginally significant ($p < .10$) for HP boards, but the main effects fail to achieve significance.[14]

The characteristics of people serving on the various types of boards do vary and according to our analysis, that variation may or may not be related to the type of board or commission. As we have noted, membership may stem from something that the typical personality and attitudinal scales and categorical data do not capture – such as personal interest in serving on a particular board or being asked by a friend or pastor to serve. So what does this mean for Iowa? And how do we think about sex, personality, and ideology correlating with political behavior based on our analyses here?

Having people with similar characteristics and shared beliefs on the same board or commission may create an institutional culture and that may impact who volunteers to serve as well as the processes of decision-making and outcomes. It is not as simple as a tendency for men and women

Table 4. Multinomial logit model predicting membership on all boards.

Board type	Control variables	Coefficients	Standard errors
Zoning Boards of Adjustment	Male	7.80	7.54
	Conservative	21.43**	10.13
	Religious	−0.42	0.85
	Trusting	−3.04***	1.02
	Extraversion	0.97	0.60
	Agreeableness	0.09	0.78
	Conscientiousness	1.04	1.43
	Emotional stability	−0.17	0.70
	Openness	−0.45	0.87
	Male*Conscientiousness	−1.46	1.73
	Conservative*Openness	−6.18***	2.31
	Conservative*Conscientiousness	−0.22	1.71
	Constant	−7.31	7.75
Planning and Zoning	Male	10.97***	4.06
	Conservative	6.28	4.82
	Religious	−1.06**	0.45
	Trusting	−0.57	0.51
	Extraversion	−0.11	0.31
	Agreeableness	0.23	0.38
	Conscientiousness	1.26	0.80
	Emotional stability	−0.65*	0.38
	Openness	−0.17	0.50
	Male*Conscientiousness	−2.26**	0.94
	Conservative*Openness	−1.22	0.82
	Conservative*Conscientiousness	−0.38	0.92
	Constant	−3.94	4.23
Parks and Recreation	Male	0.99	3.73
	Conservative	10.20**	5.09
	Religious	−0.97**	0.46
	Trusting	0.33	0.58
	Extraversion	0.14	0.32
	Agreeableness	0.28	0.39
	Conscientiousness	0.23	0.64
	Emotional stability	−0.13	0.39
	Openness	0.33	0.53
	Male*Conscientiousness	−0.12	0.87
	Conservative*Openness	−1.31	0.88
	Conservative*Conscientiousness	−1.15	1.00
	Constant	−4.24	3.91
Historic Preservation	Male	−3.40	5.32
	Conservative	−5.05	12.72
	Religious	−0.33	0.63
	Trusting	−0.83	0.70
	Extraversion	−0.28	0.46
	Agreeableness	0.03	0.62
	Conscientiousness	−0.78	0.73
	Emotional stability	−0.47	0.54
	Openness	0.91	0.67
	Male*Conscientiousness	0.73	1.24
	Conservative*Openness	−2.72*	1.59
	Conservative*Conscientiousness	3.21	2.53
	Constant	1.19	5.24

(*Continued*)

Table 4. Continued.

Board type	Control variables	Coefficients	Standard errors
	N =	178	
	Likelihood ratio =	89.51	
	Pseudo R^2 =	0.17	

Notes: Coefficients from MNL regression are reported with standard errors in parentheses. Library boards, our measure of imPR and HP-women boards, are the comparison group. See notes in Table 4 for coding of variables for male, conservative, religious, and trusting.
***Statistically significant at the $p < .01$ level using two-tailed tests.
**Statistically significant at the $p < .05$ level using two-tailed tests.
*Statistically significant at the $p < .10$ level using two-tailed tests.

to do different kinds of political activity based on their personalities, nor is it as simple as liberals and conservatives tending to gravitate to certain kinds of political activity. According to analyses of our unique data, men can and do serve on Library boards, of course, and they tend to have different personalities (i.e., they scored higher on openness to experience) and other personal characteristics (i.e., more likely to attend religious services) than men serving on other types of boards. Clearly, we identified in our empirical investigations where there seems to be a "gendered" effect (i.e., the difference between men and women on PZ and ZA boards) as well as where the variables of interest seem to have little impact on board service (HP and PR boards). Based on how personality traits and sex differences are presented in the research literatures we cited, it is not at all clear how these traits are "predicting" political behavior. In other words, the traits are not correlating in the way the literatures suggest they should. We offer an explanation of our findings in an attempt to shift the conceptual orientation of our discipline, and do so based on our observations of the local contexts of what the various boards and commissions do in their communities.

It is not that men as a group and women as a group are so distinct that we would predict different attitudes (i.e., openness to experience) and behaviors (i.e., volunteering to serve as board chair), nor is it that personality is directly influential on particular ideological stances (i.e., openness is related to liberal political ideology) or political engagement (i.e., those who are conscientious are less likely to get involved politically). Our data suggest these relationships cannot be conceived as "predictive" or directly correlating with one attitude or behavior versus another. What our data do *not* bear out are the range of possibilities that influence the choice to serve, including individual interest and local cultural and social conditions. We believe considering these aspects are as important to understanding political behavior as are the sex, personality, ideology, and other demographic characteristics traditionally measured by political scientists.

Discussion

We believe our study helps illuminate some of the tendencies in the political science literature to assume that traits and characteristics (i.e., personality) can *predict* political attitudes and behavior. Furthermore, our study may point the way to taking care before essentializing sex. For example, Karpowitz, Mendelberg, and Shaker (2012, 534) argue that "women may experience a greater sense of confidence in predominantly female settings with their stereotypically feminine norms of interaction, and more discomfort in predominantly male settings with their more masculine norms of interaction." But what counts as "predominantly female setting"? Is it merely a greater percentage of women present relative to men? Could it be an environment where decision-making is more collaborative? Or is it part of an institutionalized understanding of a

group's function (e.g., "women's work")? Are some women more sensitive to such settings than others? Are some men?

Our findings suggest potential answers to at least some of these questions. More conservative women serving on PZ and ZA boards may not feel discomfort in predominantly male settings since they share more with their fellow board members in terms of values and dispositions than they do with women on the other types of boards based on the setting – the task of their particular board or commission. There are many questions that cannot be resolved with our survey data (e.g., whether or not board members were comfortable being a gender minority), but it is important to ask actual women in actual political settings in contrast to large-N studies that abstract attitudes from lived political contexts and experiences. This is where our conceptual orientation requires shifting away from attitudinal data that are abstracted from real people in real settings that have meaning for them. That meaning may fit with what researchers might expect to find, but it may not.

Clearly, it is not as simple as the mere numerical presence of women and we are wary of universalizing the characteristics of either men as a group or women as a group. We are equally wary of suggesting that measures of personality necessarily correlate with political attitudes. The empirical evidence to date is equivocal on this question and our analyses further illustrate that there is no exact or predictive relationship between personality and ideology. Our study of local board and commission members, and other studies that involve observations and interviews with persons about their experiences, provides contrast to studies that proceed on the assumption that psychological structures underpin personality, which gives rise to attitudes and behaviors. In other words, the former suggest that causality lies with the person – that persons are the cause of the beliefs and actions. The latter place causality with either innate traits or external forces. Such traits or forces operate through, but not because of, the person.

We show that, instead, there is a personal choice and local context involved. Some aspects of that local context we account for in our study, but our survey was inadequate to assess the range of personal choices likely involved in the decision to serve on local boards and commissions. Our survey data and analyses here set the stage for more nuanced investigations of the decisions made to serve on the boards and commissions as well as the processes and outcomes of those boards and commissions. We contend the literature to date also fails to fully consider the role of local culture and context in making choices meaningful. Understanding that role is necessary to understand whether and how sex, personality, ideology, and other personal characteristics may be a meaningful aspect of political engagement. While survey data and statistical analyses are a great place to begin to point us to interesting variation, spending time observing meetings and talking to board and commission members is a necessary follow-up to truly understand political behavior.

What we found initially is what sponsors of the bill that lead to the gender balance law in Iowa expected: relatively fewer women serve on economic and city development boards than do men at the time of the law's passage and our observations. It is not the case, however, that the characteristics of the economic boards are merely "men's boards," nor is it the case that Library boards are characterized as "women's boards." According to our analyses, differences in ideology, personality, as well as sex seemed to correlate with service on certain types of boards but not others. That the men on the economic boards tended to be conservative, but less religious, than people on other boards suggests that an economic conservative outlook draws them to the economic development purpose of such boards and commissions. That larger characteristic of those types of boards goes beyond gender imbalance to suggest something of the people who may be interested in serving their communities in that capacity, as well as perhaps the processes and outcomes of decision-making on such boards.[15]

Likewise, men who gravitate to service on Library boards tend to be more religious but less conservative than men on other boards. Since our observations took place in Iowa, it is likely that this outlook is what we might consider to be that of progressive Christians. Such values may influence individuals to do the kind of work performed by library boards and commissions in the various communities we visited. Libraries across Iowa serve many functions in their communities, including preservation and repositories of local history and historical documents, job placement services, early childhood reading programs, senior social centers, summer camps and reading programs for youth, and collaborations with other area and college or university libraries. Having strong community ties or dedication to issues of social justice or equity may be at the forefront of the missions of many libraries as well as those of progressive Christians. Again, we suggest that libraries are much more than "women's boards," despite our finding that the boards were imbalanced in favor of women at the time of our observations.

We contend a consideration of what the particular board's function is in the community it serves – as contrasted with some stereotypical assumptions about the nature of men or women, or those who identify as conservative – does a good job of contextualizing our findings. The traits and findings of correlations among them only make sense in light of the contexts. For example, economic boards tend to interpret a city code and their decisions are fairly procedural. They tend to seek facts, input from the city's legal counsel or the city building inspector, and make their decisions accordingly. In terms of our findings based on the measures of personality, such a position requires conscientiousness, but not necessarily openness to experience. Economic boards do not make policy, but rather they use judgment to apply the city code.

The PR and HP boards, by contrast, are not structured according to a city plan or specific zoning or building codes. PR boards as well as HP boards may have a very specific mission or work toward very targeted goals, but their decisions tend to be less black and white and require different skills than the economic boards. Openness to citizen input, identifying creative solutions to unforeseen problems, grant writing, working with various state or federal agencies, and the ability to leverage community support may be useful skills for those who serve on such boards. This may be why we see those higher on openness on these boards compared to the others.

According to our empirical analyses, membership on PR and HP boards appears not to be a result of ideology or sex. We believe this is important to highlight. Comparing the respondents on the Big Five, however, members of PR and HP boards are higher on openness than members of the PZ and ZA boards, which we contend makes sense in light of the local context of what those boards do. Pooling women and men respondents and comparing by board type, members of PR and HP boards score significantly higher on openness than members of PZ and ZA boards ($t = 2.97$, $p < .01$). Members of Library boards also score significantly higher on openness compared to PZ and ZA boards ($t = -1.83$; $p < .10$). Again, reflecting on what these boards actually do, members may need to be more open to be successful in their position given the mission and tasks of the various boards, so it is the local contextual understanding of the nature of the political position that explains whether sex, personality, and ideology are meaningful aspects of political behavior.

We need to adjust our empirical investigations and theoretical frameworks, as Huddy, Cassese, and Lizotte (2008) suggest, but instead of continuing to think in terms of predicting behaviors based on psychological structures (i.e., personality and ideology) or even biology (i.e., male and female) we need to take into account the complex social interactions that include persons making choices in local cultures and contexts. This requires shifting our conceptual orientation to include considering local contexts and personal choices in our studies of political behavior.

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Notes

1. Del Giudice, Booth and Irwing argue that the notion there are only minor differences between the personality profiles of men and women is based on inadequate methodology. They add to the lively controversy in the literature by illustrating a global effect size $D = 2.71$, corresponding to an overlap of only 10% between male and female distributions when estimating sex difference on individual personality dimensions.
2. Gerber et al. (2011) have also demonstrated that openness, agreeableness, and extraversion are associated with the strength of partisan attachment.
3. Board members were allowed to finish their term. The law requires balanced boards to pursue gender balance as positions open up or a term ends, but also allows for current members to be reappointed (and for the board to remain unbalanced) if the municipality makes a "good faith effort" to recruit individuals to balance the board. In short, there is no real enforcement mechanism.
4. We were unable to visit all 20 cities because, in some cities, boards and commissions did not meet regularly or simply did not exist. We were forced to make additional adjustments due to cancellations and cities adjusting their meeting schedules and travel logistics due to weather, road conditions, etc.
5. In 2 cities, we visited one board or commission; in 2 cities we visited two boards and commissions; in 13 cities we visited three boards and commissions; in 1 city we visited five boards and commissions. As indicated in the previous footnote, the variation in number of boards visited in each city was a function of changing meeting schedules and travel logistics.
6. A copy of the survey is available from the authors upon request. A "thank you" letter was sent approximately 3–5 days after each observed meeting to thank each board or commission for their participation and as a gentle reminder to complete the surveys.
7. One of the aspects of the larger project was to identify where boards and commissions were gender imbalanced and needed to work toward compliance with the new law.
8. This skewedness was the reason for the gender balance law, which we more closely examine in other papers.
9. Although not shown, in a logistic model predicting board membership on PZ and ZA boards (see footnote 11 for further details), among women, a one-unit increase in conscientiousness is associated with 1.38 increase in the log odds of being on an PZ and ZA board. Among men, however, for every one-unit increase in conscientiousness, the log odds of being on a PZ and ZA board decreases by 0.76. This interaction is statistically significant ($p < .01$) and suggests that the type of woman likely to be on such boards is related to conscientiousness.
10. The cross-sectional nature of our data does not allow us to rule out alternative explanations or eliminate concerns about causality. Our interest is in examining whether sex, personality, and ideology correlates with membership on certain types of boards. Membership on such boards may be related to a topical interest in the board, knowledge of the issues the board deals with, personal connections, or other social and personal factors. Our research does not speak to the exact cause of membership.
11. Although not shown we also conducted a logistic model assessing membership on the board types; this analysis used robust cluster standard errors clustered by board accounts for the nesting of individuals within boards and the possibility of intracluster correlation (that responses of individuals within clusters (boards) are non-independent). On PZ and ZA boards, we observed significant relationships at the .05 level for sex (male), trusting, openness, conscientiousness, and the interaction for sex*conscientiousness. On average, trusting individuals and higher scores on the openness scale are associated with a reduced probability of being on a PZ and ZA board. Where conscientiousness equals zero, when moving from female to male, we can expect a 10-unit increase in the logged odds of being a member of PZ and ZA boards ($p < .01$). For the baseline model without interactions, holding the five personality measures at their respective means, the predicted probability of a religious, non-

trusting, conservative female being on a PZ and ZA board is .25, compared to .57 for a male with the same characteristics. The model fit for all three models for PR and HP boards was non-significant, indicating the demographic measures in our survey are unrelated to membership on PR and HP boards. It may be that membership on such boards has less to do with the individual characteristics we measured in our survey and more with unobserved personal choices or community influences – such as personal interest in the preservation of historic sites, being asked by a friend to serve, having children involved in local recreational activities or a dog that enjoys walks in the parks, etc. Religiosity is a positive and significant predictor of membership on Library boards ($p < .01$). There is also an effect for ideology and the interaction of ideology with the personality measure of openness. Compared to non-conservatives, for conservatives with an openness score of 0, we can expect a 7.6-unit decrease in the logged odds of being on Library boards ($p < .01$). The positive interaction term for conservative and openness indicates that this effect is significantly ameliorated as openness among conservatives increases ($p < .01$). For the baseline model without interactions, holding the five personality measures at their respective means, the predicted probability of a religious, trusting, non-conservative female being on a Library board is .58, compared to .35 for a male with the same characteristics. Among non-conservative, trusting women, religiosity increases the predicted probability of being on a Library board by .20. Finally, an interaction for sex of the respondent by ideology was also initially included but the likelihood ratio test for each board type was non-significant ($p > .16$). The complete results, available upon request from the authors, correspond to the findings from the MNL analysis.

12. An alternative would be to conduct the analysis at the board level, but this approach would significantly reduce the overall N for the study and potentially result in less reliable estimates (see Arceneaux 2005, 175). Moreover, some argue that such analysis is inappropriate when clusters are imbalanced (see Galbraith, Daniel, and Vissel 2010, 10603); in our case, the number of observations within each cluster, or board, ranges from 1 to 8. For research in which the number of clusters exceeds 42 (our effective number of clusters is 46), Angrist and Pischke (2009, 319) show that robust cluster standard errors are sufficient. Finally, our assumptions are about individual-level effects of gender and personality on boards rather than board-level effects; a board-level analysis would create an ecological inference problem (see King, Rosen, and Tanner 2004). The degree of intracluster correlation may also vary as board membership is most likely explained by a host of factors not readily observable, which may cause such correlations to increase or decrease.
13. We also conducted an MNL in which PZ boards and ZA were combined resulting in four total boards, with Library boards as the comparison group. As expected, on the combined board category, coefficients for male, religiosity, trusting, conservative*openness, and sex*conscientiousness remained significant ($p < .05$). This largely reflects what is shown in Table 4 for the two boards considered separately.
14. We reran the logistic analysis mentioned in footnote 11 with the dependent variable reconstructed such that the boards were divided up into three categories based on the number of women present at the meeting. In effect, we created a continuum based on the proportion of board members in attendance who were female. We then created three grouping categories based on the continuum: "low female," "medium female," and "high female." Low female boards were those boards where the percent of board members in attendance who were female ranged from 0 to 39.99% ($N = 21$ boards; 75 individuals). Medium female boards were those where female board members in attendance comprised 40% to 59.99% of the board ($N = 15$ boards; 68 individuals). High female boards were those with 60% or greater female board members ($N = 14$; 63 individuals). The models were then reestimated using these three categories. We expected models for low female, medium female, and high female boards to perform similarly to models for PZ and ZA, PR and HP, and Library boards, and indeed this was the case. For the "low female" board model, the model fit was significant (Wald $\chi^2 = 35.71$; $p < .01$), while the sex of the respondent (a dummy variable for male) remained a significant and positive predictor (coefficient = 1.22; $p < .01$). Religiosity and trusting were negative but not significant. As expected, the model for "medium female" (similar to PR and HP boards) was a poor fit ($p = .49$) with no variables achieving statistical significance ($p > 14$). Finally, for "high female" boards (or what we would expect to be similar to Library boards in the original model), the model fit was significant (Wald $\chi^2 = 29.37$; $p < .01$) and the dummy variable for male is significant and negative as expected (coefficient = −1.16; $p < .01$) while the variable for trusting is positive (coefficient = 0.60; $p < .10$). In short, the reestimated models remain consistent with the logistic models discussed in footnote 9 (all results are available upon request).
15. The challenge for the effective implementation of the gender balance law, it seems, is how likely it will be to change the character of those types of boards and commissions – which involve more than just an

imbalance of men and women. If the character of a decision-making body is one that hinges on a collection of beliefs and other, perhaps more concrete, qualifications (such as holding a professional license or certification), gender imbalance may persist.

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