Appendix to

“Of Two Minds, But One Heart: A Good “Gut” Feeling Moderates the Effect of Ambivalence on Attitude Formation and Turnout

Table of Contents

Supplemental Information on Experiment

Experimental Stimuli

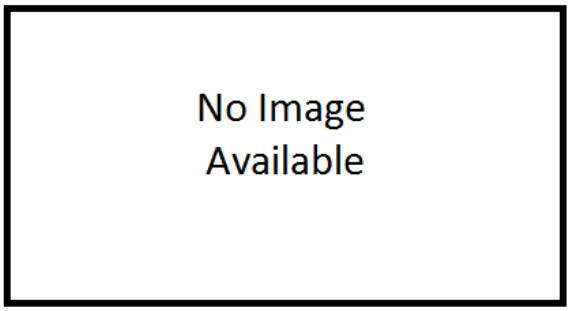
Prior studies have shown that gut feelings toward candidates can be shaped by a candidate's appearance (e.g. Todorov 2017) and facial expressions (Sullivan and Masters 1988). In addition, Brader (2006) finds that American flags are one of the primary visual symbols candidates use to arouse positive affect in campaign ads. Finally, emotionally evocative words can stimulate affective associations without communicating a substantive message (e.g. Lodge and Taber 2013).

Good Gut Feeling Treatment

When asked why he is running, Jesse Rodriguez said:

"Michigan has been through some hard times lately, but we've been through hard times before, and that's why we're strong. We should be proud of our state's great history, all we've accomplished, and all we've overcome. It's this resolve that makes me confident that there's a bright future ahead for us. I know I'm going to work hard, and I know you will too. And if we work together… If we sweat together… Then, together, we'll see Michigan prosper."

Good Gut Feeling Control



When asked why he is running, Jesse Rodriguez said:

"Michigan has been through some hard times lately. I'm running for state legislature to make Michigan prosper."

Ambivalence Treatment	Ambivalence Control
Below are a few facts about Jesse Rodriguez who is running for state legislature in Michigan. Please read this information carefully before answering the questions.	Below are a few facts about Jesse Rodriguez who is running for state legislature in Michigan. Please read this information carefully before answering the questions.
He is 35 years old. All four of his grandparents immigrated to Michigan from Mexico in the 1960s. He has lived in Michigan for his entire life. He has a bachelor's degree from Michigan State University. He took over his family's real estate business in 2013, but it went under last year. He led a successful campaign to raise funds to build a new high school in his community. He served on his local city council from 2012-2016. During that time, the city's debt was reduced by 50%.	He is 35 years old. All four of his grandparents immigrated to Michigan from Mexico in the 1960s. He has lived in Michigan for his entire life. He has a bachelor's degree from Michigan State University. He took over his family's real estate business in 2013 and had record sales last year. He led a successful campaign to raise funds to build a new high school in his community. He served on his local city council from 2012-2016. During that time, the city's debt was reduced by 50%.

Measures

Following the experimental manipulation, study participants were asked to report their attitude toward the candidate using a feeling thermometer. This was followed by an item asking whether they felt very conflicted, somewhat conflicted, somewhat certain, or very certain about their assessment of the candidate. They were then asked whether or not they would vote for the candidate if they could. Depending on their answer, they were then asked to explain in an open-ended format why they would vote for the candidate, why they would not vote for the candidate, or why they could not decide whether or not they would vote for the candidate. Finally, they were asked two recall questions to determine how carefully they had read the information provided.

As in any study, there is a possibility that answers to questions asked later in the study were influenced by the question asked earlier. Since question order was constant across conditions, this does not pose a threat to internal validity. But, it is possible that the closed-ended ambivalence measure could have reminded participants of their ambivalence prior to reporting their voting intentions and explaining them in the open-ended question. One might wonder whether this would affect external validity. In other words, if the experimental stimuli and question order made ambivalence more salient than it normally would be, the treatment effect may not generalize to the real world.

However, two points should help to alleviate this concern. First, the stronger the ambivalence manipulation, the more impressive it is that the good gut feelings manipulation nullified its effect. This actually *increases* confidence that good gut feelings are powerful enough

to exert an influence outside the lab, even in cases where ambivalence is particularly salient. Second, the ANES analyses suggest that the experimental results do indeed generalize to real elections and contexts where good gut feelings and ambivalence may not be as salient.

Sample, Recruitment, and Procedure

Study participants were recruited to participate in the study through Amazon's Mechanical Turk (Mturk). The project was advertised as a public opinion study, and Mturk "workers" (to use the website's terminology) were informed that they would receive $0.40 for their participation. Although demographic information was not recorded as part of this study, prior research has shown that Mturk samples tend to be younger, more liberal, Democratic leaning, and have lower income. They also tend to be less racially and ethnically diverse compared to nationally representative samples (for additional detail on Mturk samples, see Berinsky, Huber, and Lenz 2012; Levay, Freese, and Druckman 2016). Mturk requires individuals to be 18 or older to sign up as a worker. Through Mturk's requester interface, the sample was further restricted to workers residing in the United States, and each worker was only permitted to participate one time. As is typical in Mturk studies, participation was limited to workers whose approval rate for prior HITs (Human Intelligence Tasks) exceeded 90%. This helps to ensure high data quality (e.g. Berinsky et al. 2012; Levay, Freese, and Druckan 2016). Qualtrics was used to program the instrument itself and record the data gathered from the Mturk sample.

Although the sample was certainly not representative of the national population, Druckman and Kam (2011) point out that "If the underlying data generating process is characterized by a homogenous treatment effect (i.e. the treatment effect is the same across the entire population), then any convenience sample should produce an unbiased estimate of the single treatment effect, and thus the results from any convenience sample should generalize easily to any other group." In other words, if there is no theoretical reason to expect the treatment to interact with some dimension on which the sample differs from the population, there is little reason to be concerned about the sample's lack of demographic representativeness. In this case, since good gut feelings and ambivalence are universal psychological phenomena, and the stimuli contained no partisan or ideological information, the non-representative nature of the MTurk sample is less concerning that it might otherwise be. Of course, for those unconvinced by this argument, the ANES analyses provide additional evidence of generalizability.

Discerning readers will notice that Hypothesis 3 predicts an income moderation effect for voter turnout. And, as mentioned above, income is a dimension on which MTurk samples typically differ from the population. However, because the Mturk study only measured voting intentions rather than turnout in an actual election, it made little sense to test the income moderation hypothesis. By examining voting intentions rather than actual voting behavior, the cost of voting was removed from the equation, eliminating the expectation of income moderation in the experiment. Thus, while the experiment made it possible to test the causal theory in a controlled context, the survey-based analyses allowed me to test the theory in the context of real elections where voting is a costly act.

Treatment Effects Reported in Paper (Figure 1)

Table 1A: A Good Gut Feeling Moderates the Effect of Ambivalence on Attitudes and Behavior

	Attitude Strength *OLS* *B* (*SE*)	Non-Attitudes *Probit* *B* (*SE*)	Abstention *Probit* *B* (*SE*)
Gut Feeling	.581 (1.81)	.001 (.196)	.166 (.144)
Ambivalence	-6.98** (1.81)	.246 (.186)	.642** (.143)
Gut Feeling*Ambivalence	4.58^ (2.55)	-.251 (.271)	-.577** (.200)
Constant	74.07** (1.32)	-1.39** (.144)	-.577** (.107)
N	685	685	685

Note: $p<.01$**, $p<.05$*, $p<.10$^ Attitude strength was measured on feeling thermometer that ran from 0 (cold) to 100 (very warm). Non-Attitudes is a dummy variable coded "1" if participants reported a neutral attitude on the feeling thermometer or didn't report an attitude at all. Any other rating was coded as "0." Abstention is a dummy variable coded "1" if a participant reported they would vote for the candidate and "0" if they would not vote for the candidate or they did not know/could not decide whether they would vote for the candidate.

Manipulation Checks (Pre-test)

Table 2A: Image Ratings

	Overall Gut Feeling *M* (*SD*)	Hopeful *M* (*SD*)	Proud *M* (*SD*)
Treatment Image	64.7 (1.5)	.73 (.03)	.64 (.03)
Comparison Images			
1	26.1 (1.7)	.12 (.02)	.14 (.02)
2	48.2 (1.5)	.40 (.04)	.33 (.03)
3	52.2 (1.7)	.49 (.04)	.46 (.04)
4	55.3 (1.6)	.59 (.03)	.50 (.04)
5	58.3 (1.8)	.65 (.03)	.54 (.04)
6	51.3 (1.6)	.50 (.04)	.38 (.03)
7	57.1 (1.6)	.56 (.04)	.47 (.04)
8	46.5 (1.7)	.36 (.03)	.34 (.03)
9	46.2 (1.8)	.38 (.03)	.33 (.03)
10	48.6 (1.5)	.41 (.03)	.31 (.03)
11	48.6 (1.6)	.40 (.03)	.32 (.03)

Table 3A: Quote Ratings

	Overall Gut Feeling *M* (*SD*)	Hopeful *M* (*SD*)	Proud *M* (*SD*)
Treatment Quote	68.5 (1.9)	.83 (.04)	.71 (.05)
Control Quote	62.1 (2.1)	.67 (.05)	.48 (.05)
N	205	206	207

Table 4A: Ambivalence Levels

	M (*SD*)
Treatment Description	3.00 (.720)
Control Description	2.70 (.775)
N	55

Manipulation Checks and Contamination Tests (Post-test)

One might wonder whether the interaction between the ambivalence and gut feelings factors led to contamination. There are two possible mechanisms by which this contamination could have occurred. First, good gut feelings are associated with heuristic processing, so one might wonder whether participants simply disregarded other information (e.g. the ambivalence induction) after seeing the candidate's image and reading the emotionally evocative quote. To test for this possibility, participants were asked two factual questions about the candidate information they were presented. One of the questions was a very general question about the candidate (whether or not he was running for state legislature in Michigan) and the other question pertained specifically to the information manipulated in the ambivalence treatment (whether or not the candidate's family real estate business had gone under). In all, 96% of study participants answered the first question correctly, and 86% answered the second question correctly. And, neither of the experimental factors affected knowledge levels independently or in interaction. Thus, the treatments appear to have worked as intended, and there is no evidence of contamination. These findings are consistent with works demonstrating that while positive affect is associated with reliance on more general knowledge structures, it does not lead to mindlessness or decreased processing motivation (Bless et al. 1992; Bless et al. 1996; Fredrickson 2001).

Table 5A: Treatment Exposure Had No Effect on Information Reception

	Know Running *Probit* *B* (*SE*)	Know Running *Probit* *B* (*SE*)	Know Business *Probit* *B* (*SE*)	Know Business *Probit* *B* (*SE*)
Gut Feeling	-.118 (.175)	.002 (.252)	-.084 (.122)	-.090 (.172)
Ambivalence	-.081 (.174)	.046 (.260)	.009 (.122)	.003 (.177)
Gut Feeling* Ambivalence		-.230 (.351)		.011 (.245)
Constant	1.82** (.161)	1.76** (.185)	1.12** (.109)	1.11** (.129)
N	654	654	653	653

Note: $p<.01$**, $p<.05$*, $p<.10$^ "Know Running" and "Know Business" are dummy variables coded "1" for correct answers and "0" for incorrect answers. The "Know Running" item asked participants whether the candidate was running for state legislature in Michigan. The correct answer was "true." The "Know Business" item asked participants whether the candidate's family real estate business had gone under. Correct answers to this question depending on the condition to which the participant was assigned. Response option included "True," "False," and "Don't Know." "Don't Know" is coded as incorrect. Analyses were also conducted with non-responses coded as incorrect, and results were nearly identical.

A second possibility is that good gut feelings did not truly *moderate* the influence of ambivalence on attitudes and voting intentions, but instead functioned as an additional source of information that reduced ambivalence. I tested for this possibility using both closed-ended and open-ended manipulation checks (see measures section above for additional detail on these measures). The open-ended measure was created by a trained graduate student who, while blind to condition, coded participants' explanations of their voting decision. The research assistant was instructed to code responses as conflicted if they used words that explicitly indicated conflict (e.g. "conflicted," "torn," "uncertain," or "ambivalent") or if their responses implied conflict (e.g. they mentioned liking some things about the candidate and disliking other things).[1]

Consistent with the pretest (although the pretest effect fell just short of statistical significance), results in Table 6A show that exposure to the ambivalence stimulus significantly increased participants' feelings of conflict about the candidate, as indicated by a closed-ended ($p<.01$) as well as an open-ended measure ($p<.05$). And, more to the point, the gut feelings manipulation had no significant direct or interactive effect on either measure of cognitive conflict. In fact, the coefficient on the interaction term is in the wrong direction for the open-ended measure. Thus, the manipulation of gut feelings does not appear to have *reduced* ambivalence, but instead *moderated its effect* on attitude formation and voting behavior, as intended.

[1] Most responses coded as "conflicted" implied conflict rather than mentioning it explicitly. In fact, none of the responses actually included the words "conflict" or "conflicted," which suggest the closed-ended measure of conflict did little to prime thoughts of conflict as respondents answered subsequent questions.

Table 6A: Effect of Treatment of Closed-Ended and Open-Ended Measures of Internal Conflict

	Conflicted (Closed-Ended) *Ordered Probit* *B* (*SE*)	Conflicted (Closed-Ended) *Ordered Probit* *B* (*SE*)	Conflicted (Open-Ended) *Probit* *B* (*SE*)	Conflicted (Open-Ended) *Probit* *B* (*SE*)
Gut Feeling	-.130	-.052	.053	.015
	(.085)	(.120)	(.136)	(.212)
Ambivalence	.327**	.405**	.328*	.294
	(.085)	(.121)	(.138)	(.199)
Gut Feeling* Ambivalence		-.154		.065
		(.169)		(.276)
Cut Points/ Constant	-.675	-.635	-1.55**	-1.52**
1	(.081)	(.093)	(.130)	(.156)
2	.757	.799	NA	NA
	(.082)	(.094)		
3	1.81	1.86	NA	NA
	(.107)	(.117)		
N	666	666	683	683

Note: $p<.01$**, $p<.05$*, $p<.10$^ The closed-ended item asked participants to rate their evaluation of the candidate on a 4-point scale that run from very certain to very conflicted. The open-ended conflict item was coded using participants' explanations for their voting decisions. Coding was done by a trained graduate student who was blind to experimental condition. Participants were coded as conflicted "1" if they explicitly mentioned feeling conflicted, torn, uncertain, or ambivalent, or if they mentioned both things they liked and things they disliked about the candidate.

In addition to coding for evidence of ambivalence, the graduate student coder also identified responses that seemed to rely on gut intuition. Again, as expected, the people induced to feel a "good gut feeling" toward the candidate seemed to rely more on their gut to explain their voting decisions. And, the lack of an interaction suggests no evidence of contamination between factors.

The number of words each participant used to explain his or her voting decision was also counted and logged. Although the interaction result only reaches marginal significance (two-tailed) it suggests possible evidence of rationalization. In other words, individuals exposed to the good gut feeling induction relied more on their gut intuition across conditions. But, when those individuals were also exposed to the ambivalence manipulation (and set that ambivalence aside (see Figure 1 of the paper), they felt greater need to rationalize their decision.

Mechanisms

Table 7A: Participants Exposed to the Good Gut Feeling Manipulation Relied on Gut Intuition to Explain Their Voting Intentions

	Gut Intuition	Gut Intuition	Word Count (Log)	Word Count (Log)
	OLS	*OLS*	*OLS*	*OLS*
	B	*B*	*B*	*B*
	(*SE*)	(*SE*)	(*SE*)	(*SE*)
Gut Feeling	.580**	.561**	.067	-.037
	(.131)	(.182)	(.060)	(.084)
Ambivalence	-.010	-.034	.006	-.101
	(.126)	(.209)	(.060)	(.086)
Gut Feeling* Ambivalence		.038		.210^
		(.262)		(.120)
Constant	-1.49**	-1.48**	2.78*	2.83**
	(.124)	(.152)	(.053)	(.062)
N	683	683	653	653

Note: $p<.01$**, $p<.05$*, $p<.10$^ The gut intuition variable was coded using participants' explanations for their voting decisions. Coding was done by a trained graduate student who was blind to experimental condition. Participants were coded as relying on gut intuition if they said things like, "I just have a good gut feeling about the candidate," "There's just seems like a good guy," or if they attributed their assessments to things that were not included in the information provided and could therefore only have come from gut intuition (e.g. statements about his personality, character, or manners).

As I final test to rule out alternative causal pathways, I conducted a causal mediation test (Hicks and Tingley 2011) of the hypothesis that a good gut feeling reduced ambivalence, which led to stronger attitudes, fewer, non-attitudes, and lower rates of abstention. Since the sign on the relationship between the gut feeling manipulation and the open-ended measure is in the wrong direction for this theory, mediation was already ruled out for that variable. Thus, I tested the model using the closed-ended question. Given that this item was administered immediately after participants were asked whether they would vote for the candidate, and it required participants to consciously acknowledge feeling conflicted about that decision, it is quite likely that the sequential ingornability assumption is violated. This stacks the deck in favor of the alternative mediation theory. Nonetheless, in none of the three cases was the averages causal mediation effect found to be statistically significant.

Table 8A: Average Causal Mediation Effects

	ACME	Lower CI	Upper CI
Attitude Strength	.801	-.115	1.86
Non-Attitudes	-.004	-.010	.001
Abstention	-.022	-.052	.004

Supplemental Information on ANES Survey Analyses

Measuring Affect Through Self-Reports

Prior studies on the influence of "gut feelings" have often sought to manipulate the association between emotions and attitude objects through subliminal priming (e.g. Lodge and Taber 2013) or gauge affective responses to objects using physiological measures (e.g. Damasio 1994) rather than measuring affect through self-reports. The primary concern with self-reports is that individuals are not always aware of the emotions they experience, and once they become aware, emotion and cognition can be difficult to parse out. On the other hand, there are also benefits to this measurement strategy. First, by testing the theory using nationally representative samples collected from 1980-2004, I gain confidence in my ability to generalize results across the population and across election contexts. Second, these measures have been used in numerous published studies of emotion in politics, suggesting that they reliably predict opinions and behavior. Third, physiological measures cannot distinguish between positive and negative affect, which is critical to this study. Fourth, when researchers use different samples and different measures to examine the influence of "gut feelings" and yet find similar results, we gain confidence that these results are not merely attributable to the characteristics of a single sample or measurement strategy. Fifth, while self-reports certainly measure emotions imperfectly, concerns about the effects of measurement can be reduced by including appropriate controls and conducting robustness tests (see below). Thus, while the self-reported emotion measures certainly have their limitations, I believe this measurement strategy is justified.

Content of ANES Open-Ended Likes and Dislikes Codes

Table 9A shows the content of these "likes" and "dislikes" items according the ANES open-ended codes. As one case see, candidate traits are by far the most common types of considerations listed, followed by the candidates' issue positions. None of the categories included in the "other" category comes close in frequency of mentions. It is also noteworthy that the content of respondents' likes and dislikes are nearly identical, reducing concerns about combing them into a single measure of ambivalence toward each candidate.

Table 9A: Content of Likes and Dislikes

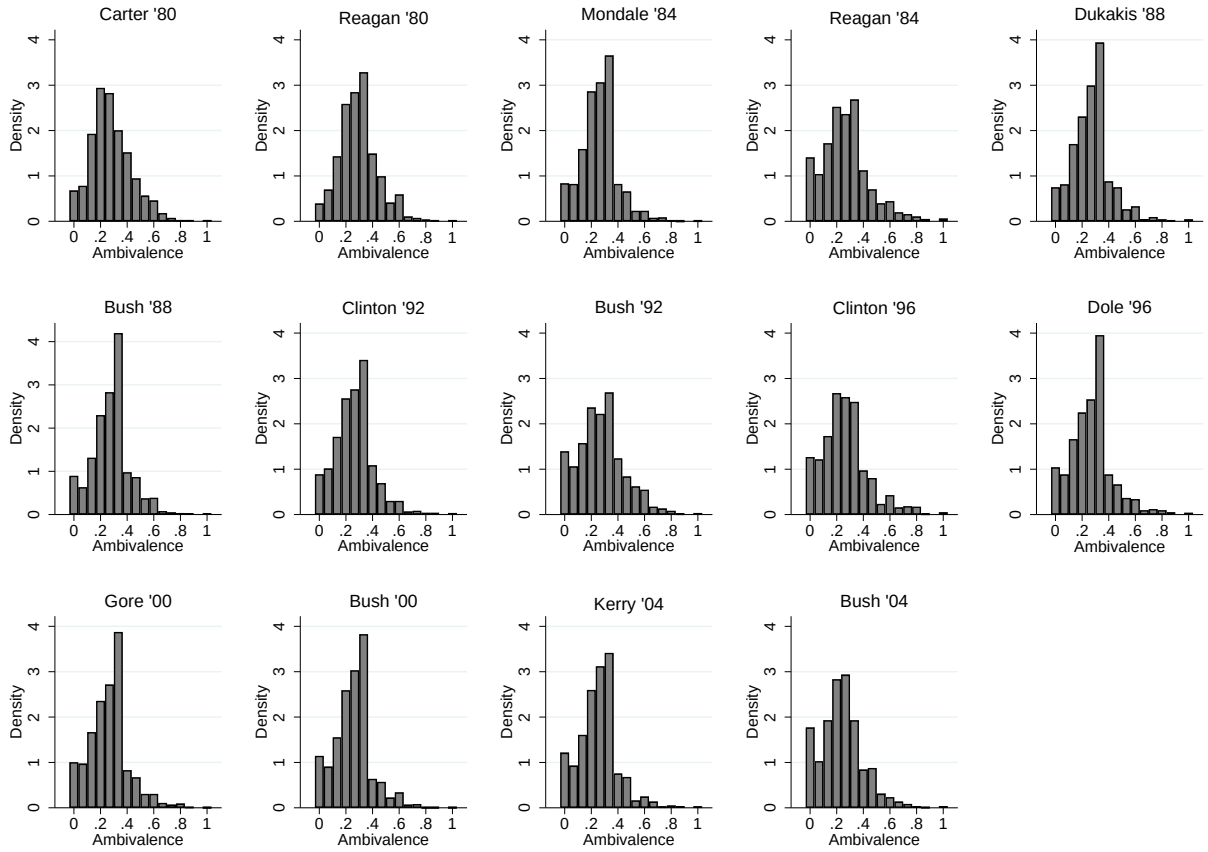
	Likes	Dislikes
Candidate Traits	68%	72%
Issues Positions	18%	19%
Other	14%	9%
Total	100%	100%

Note: Percentages are based on ANES coding of open-ended candidate likes and dislikes. Candidates traits includes mentions of experience/ability, leadership, personal qualities, and party connections. Issue positions includes mentions of domestic policies or foreign policies. Other includes mentions of people within parties, party characteristics, government management, government activity/philosophy, group connections, and miscellaneous.

A Closer Look at Ambivalence

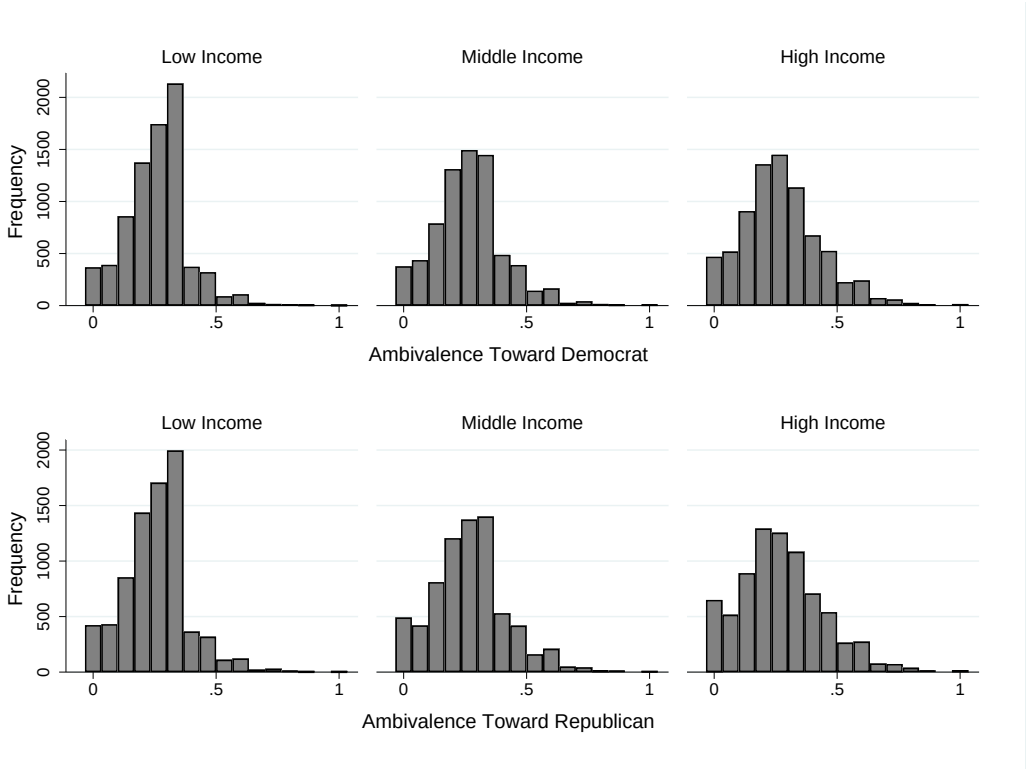
Although there is some variation in the shapes of the distributions, mean ambivalence levels are actually quite similar across candidates and elections, ranging from .240 (Bush ’04) to .296 (Reagan ’80) (Difference = .056). On the other hand, mean enthusiasm levels are much more variable, ranging from .348 (Dukakis ’88) to .580 (Bush ’04) (Difference = .232). Thus, voter ambivalence can be viewed as a challenge faced by all candidates, and the bigger question is whether a candidate can generate enough enthusiasm to overcome the effect of this ambivalence.

Figure 1A: The Distribution of Ambivalence Toward Each Candidate in Each Election Year



Ambivalence levels are quite similar between low (M=.264 (Dem), M=.262 (Rep)), middle (M=.267 (Dem), M= .272 (Rep)), and high-income individuals (M=.270 (Dem), M= .281 (Rep)) during the time-period under examination. Likewise, the distribution of income varies similarly within each income group.

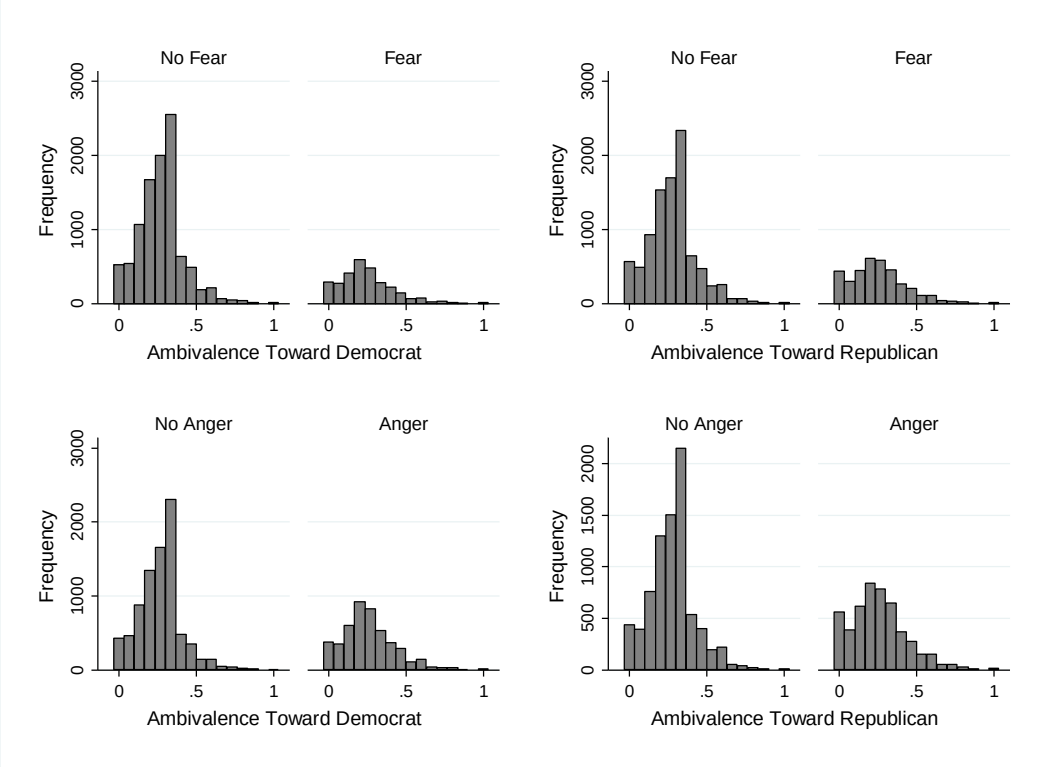
Figure 2A: The Distribution of Ambivalence Within Each Income Category



Fear and Anger Analyses

Figure 3A shows the distribution of ambivalence toward Democratic candidates (left) and Republican candidates (right) among those how report no fear versus fear (top) and no anger versus anger (bottom). Although there are more people who report no fear and no anger than those who report fear and anger, there is considerable variability in ambivalence within each group.

Figure 3A: The Distribution of Ambivalence Across Levels of Fear (Top) and Anger (Bottom) Toward Democratic (Left) and Republican (Right) Candidates



Figures 4A-9A show each of the results presented in the paper after substituting fear and anger for enthusiasm. As explained in the paper, the literate has clear implications for how enthusiasm should affect the relationship between ambivalence and the formation of attitudes and preference. On the other hand, while fear and anger have been shown to directly affect attitudes and behavior, it is less clear if and how these variables should interact with ambivalence. On one hand, the literature on negativity bias suggests that negative feelings carry more weight (e.g. Cacioppo, Gardner, and Bernston 1997). Therefore, feelings of fear and anger should quickly tilt the balance toward formation of negative attitudes, reducing the influence of ambivalence. On the other hand, Affective Intelligence Theory (Marcus et al. 2000) suggests that anxiety should stimulate more careful thought and might therefore draw additional attention to conflicting considerations, increasing their influence on attitudes and behavior. Or, at very least, if ambivalence already has a large baseline effect, anxiety should not decrease it. Anger (sometimes labeled aversion) might be expected to reduce careful thought and stimulate impulsive action (Groenendyk and Banks 2104; Valentino et al. 2010). However, to further complicate matters, some works operationalize "anxiety" by combining measures of fear and anger (e.g. Marcus et al. 2000; Brader, Valentino and Suhay 2008), while others model their effects separately and show that they work quite differently (e.g. Groenendyk and Banks 2104; MacKuen et al. 2010; Valentino et al. 2008; 2009; 2010).

Despite this theoretical ambiguity, I have included these interactions as controls in each of my models. Here, I report those effects. As explained in the paper, each model contains interactions for all three measures. Due to space constraints and lack of clear expectations about the interactive effect of fear and anger, these findings were excluded from the paper. Nonetheless, the consistency of the null results (and just how null they appear to be) are noteworthy in contrast to the large and consistent effects of enthusiasm.

Figure 4A: The Interactive Effects of Negative Affect and Ambivalence on Attitude Strength Toward Democratic (Top) and Republican (Bottom) Candidates.

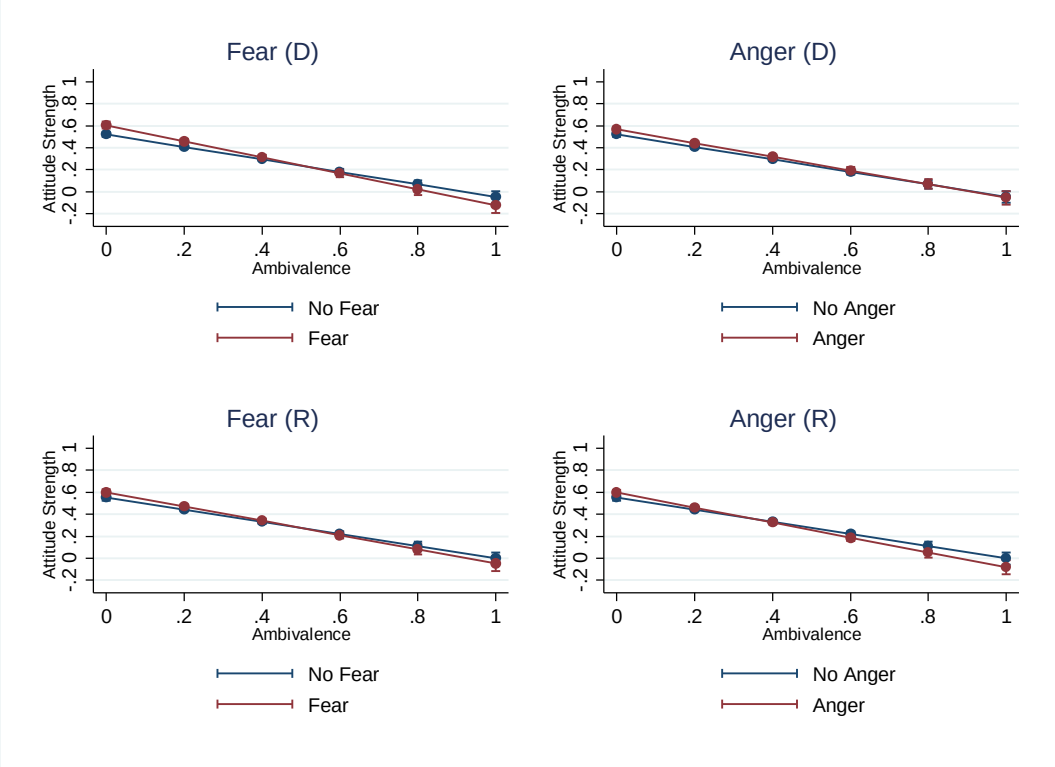


Figure 5A: The Interactive Effects of Negative Affect and Ambivalence on "Non-Attitudes" Toward Democratic (Top) and Republican (Bottom) Candidates.

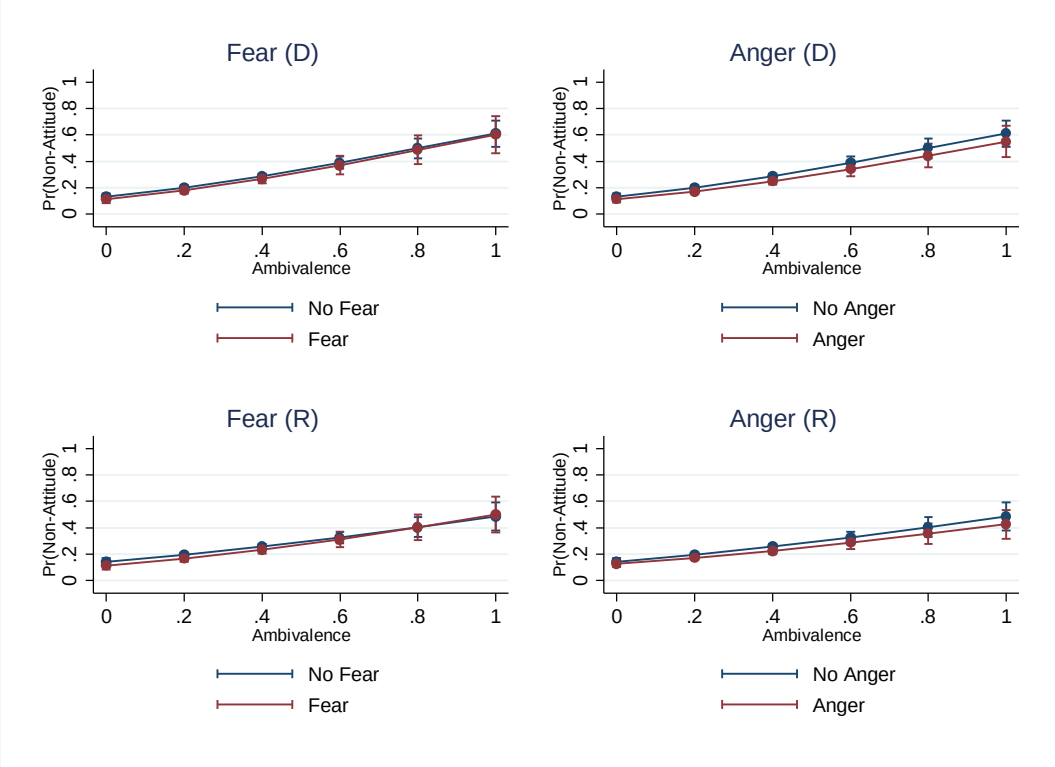


Figure 6A: The Interactive Effects of Negative Affect and Ambivalence on Abstention

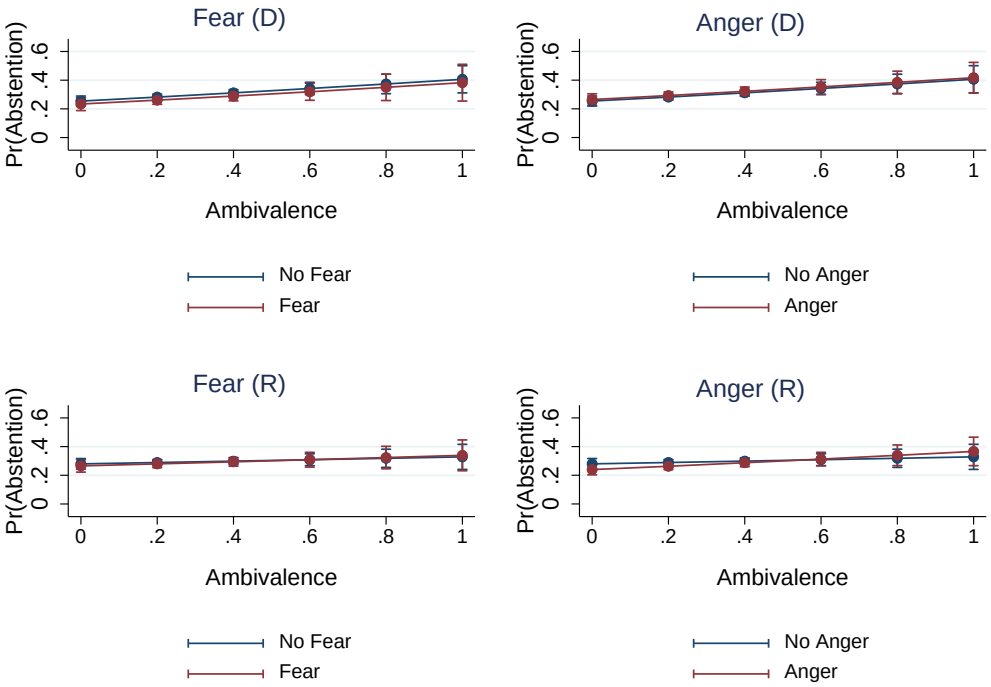


Figure 7A: The Marginal Effects of the Interaction Between Negative Affect and Ambivalence on Abstention

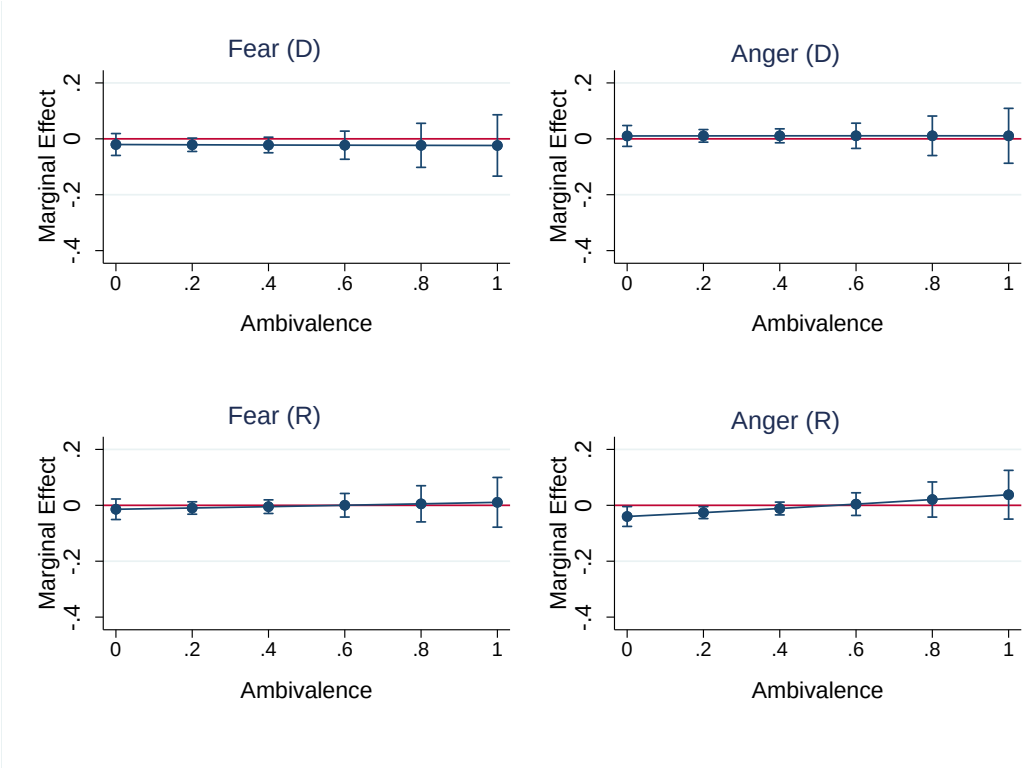
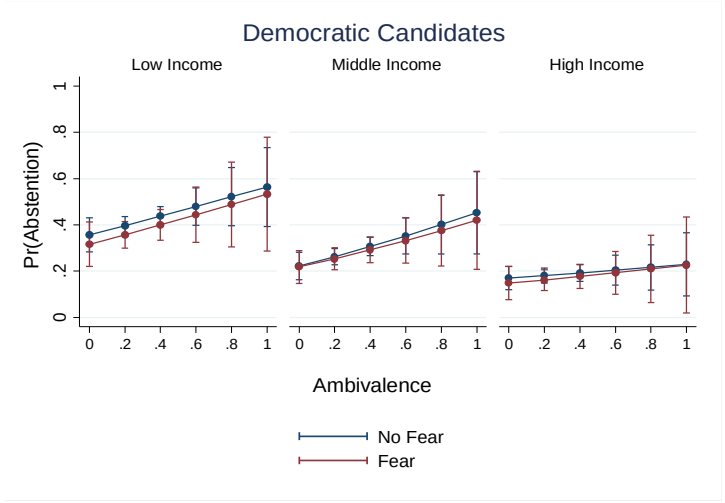
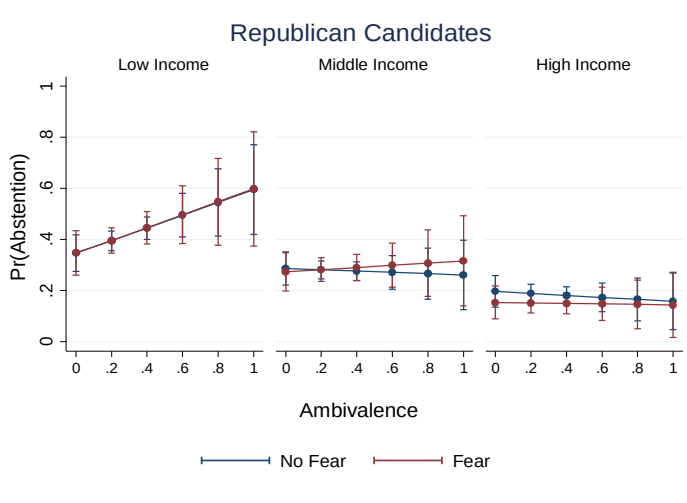
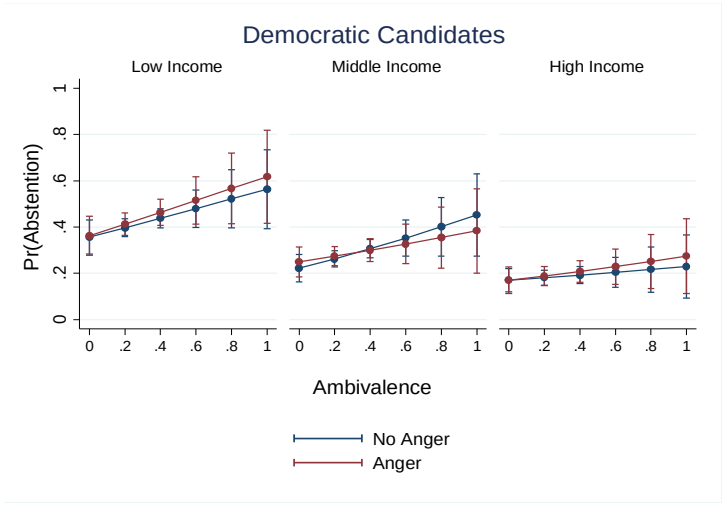


Figure 8A: The Interactive Effects of Negative Affect (Fear, Top; Anger, Bottom) and Ambivalence on Abstention by Income







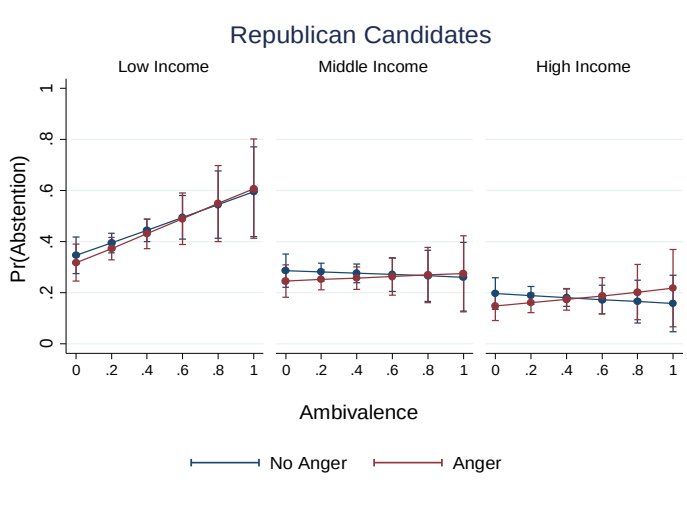
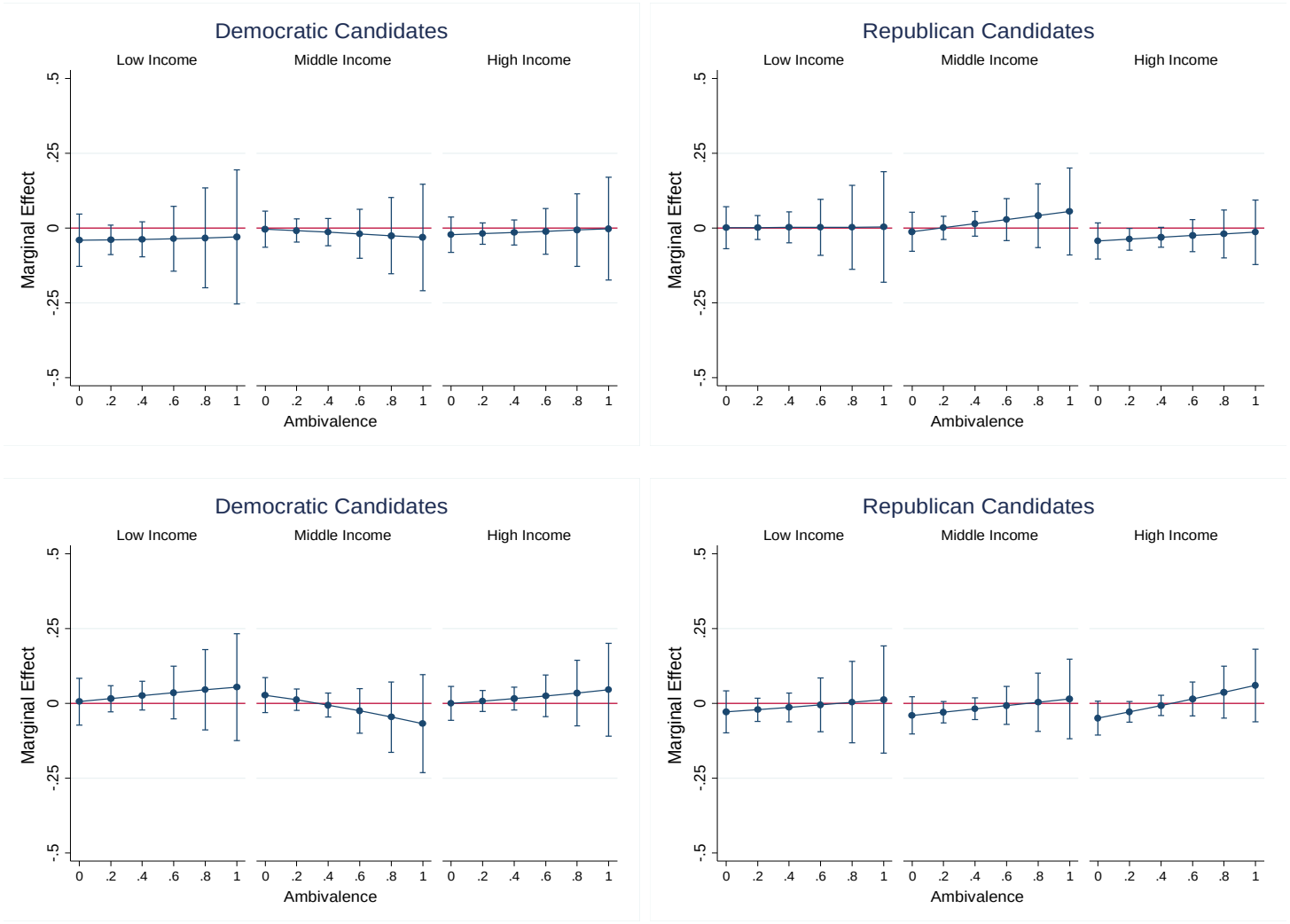


Figure 9A: The Marginal Effects of the Interaction Between Negative Affect (Fear, Top; Anger, Bottom) and Ambivalence on Abstention by Income



Tables 10A & 11A show the results used to construct the Figures 3-6 presented in the paper and Figures 3A-8A above.

Table 10A: The Effects of Interactive Effects of Affect and Ambivalence on Attitude Formation (Seen in Figures 3 and 4 of the Paper and 3A and 4A Above)

	Democrat Attitude Strength OLS *B* (*SE*)	Republican Attitude Strength OLS *B* (*SE*)	Democrat Non-Attitudes Probit *B* (*SE*)	Republican Non-Attitudes Probit *B* (*SE*)
Ambivalence	-.569**	-.553**	1.51**	1.13**
	(.038)	(.040)	(.201)	(.208)
Some Enthusiasm	-.070**	-.111**	-.111	.126
	(.015)	(.016)	(.088)	(.081)
Some Enthusiasm X Ambivalence	.302**	.352**	-.917**	-1.26**
	(.044)	(.048)	(.253)	(.250)
High Enthusiasm	.086**	.045**	-.707**	-.489**
	(.014)	(.015)	(.101)	(.091)
High Enthusiasm X Ambivalence	.198**	.241**	-.655*	-.603*
	(.042)	(.042)	(.282)	(.248)
Fear	.084**	.048**	-.089	-.166*
	(.014)	(.014)	(.084)	(.075)
Fear X Ambivalence	-.159**	-.094*	.065	.208
	(.041)	(.037)	(.252)	(.225)
Anger	.044**	.045**	-.098	-.065
	(.012)	(.013)	(.080)	(.074)
Anger X Ambivalence	-.052	-.125**	-.068	-.101
	(.035)	(.034)	(.232)	(.213)
Constant	.408**	.424**	-.684**	-.508**
	(.018)	(.018)	(.100)	(.094)
N	11,109	11,155	11,278	11,300

Note: $p<.01$**, $p<.05$*, $p<.10$^ Models also include controls for party identification, party identification strength, education, knowledge, interest in the election, female, age, black, Hispanic, and year.

Table 11A: The Interactive Effects of Affect and Ambivalence on Abstention (Seen in Figures 5 and 6 of the Paper and Figures 5A-8A Above)

	Abstention (Full Sample) Probit *B* (*SE*)	Abstention (Low Income) Probit *B* (*SE*)	Abstention (Mid Income) Probit *B* (*SE*)	Abstention (High Income) Probit *B* (*SE*)
AmbivalenceD	.551*	.698^	.733^	.317
	(.221)	(.393)	(.402)	(.362)
Some EnthusiasmD	.100	.104	.213	.049
	(.089)	(.158)	(.152)	(.154)
Some EnthusiasmD	-.391	-.539	-.549	-.247
X AmbivalenceD	(.270)	(.499)	(.462)	(.446)
High EnthusiasmD	.264**	.301**	.350*	.028
	(.085)	(.143)	(.154)	(.162)
High EnthusiasmD	-.988**	-1.25**	-1.15*	-.525
X AmbivalenceD	(.259)	(.453)	(.456)	(.463)
FearD	-.084	-.174	-.009	-.088
	(.084)	(.158)	(.133)	(.152)
FearD X AmbivalenceD	.004	.089	-.088	-.103
	(.256)	(.500)	(.397)	(.462)
AngerD	.041	.040	.099	.014
	(.076)	(.016)	(.125)	(.137)
AngerD X AmbivalenceD	-.005	.095	-.284	.148
	(.228)	(.414)	(.376)	(.398)
AmbivalenceR	.182	.857*	-.127	-.182
	(.221)	(.398)	(.386)	(.386)
Some EnthusiasmR	-.052	.192	-.173	-.202
	(.086)	(.143)	(.150)	(.162)
Some EnthusiasmR	-.152	-.973*	.169	.303
X AmbivalenceR	(.268)	(.468)	(.462)	(.479)
High EnthusiasmR	-.184*	.100	-.382**	-.332*
	(.085)	(.145)	(.145)	(.161)
High EnthusiasmR	-.172	-.934*	.482	-.050
X AmbivalenceR	(.247)	(.042)	(.422)	(.442)
FearR	-.056	.012	-.035	-.255^
	(.074)	(.013)	(.129)	(.148)
FearR X AmbivalenceR	.094	-.019	.251	.201
	(.220)	(.406)	(.376)	(.398)
AngerR	-.161*	-.100	-.147	-.247^
	(.073)	(.126)	(.127)	(.137)
AngerR X AmbivalenceR	.295	.153	.183**	.528
	(.215)	(.403)	(.034)	(.364)

Constant	1.55** (.121)	1.33** (.204)	1.38** (.209)	1.28** (.223)
N	10,025	3,318	3,418	3,289

Note: $p<.01$**, $p<.05$*, $p<.10$^ Models also include controls for party identification, party identification strength, education, knowledge, interest in the election, female, age, black, Hispanic, and year.

Variance Inflation Factor Tests

The table below shows the variance inflation factor (VIF) for the two OLS models presented in the paper. The VIF is used to assess the amount of multicollinearity associated with each term in an OLS regression model. The standard threshold above which scholars should be concerned is 10. None of the variables, including interaction terms, show reason for concern. Centering variables further reduces VIF, but the results appear virtually identical.

Table 12A: Variance Inflation Factors Calculations (VIF)

	Democrat Attitude Strength	Republican Attitude Strength
Ambivalence	4.91	5.62
Some Enthusiasm	5.91	5.33
Some Enthusiasm X Ambivalence	6.91	6.44
High Enthusiasm	6.00	6.03
High Enthusiasm X Ambivalence	6.30	7.25
Fear	4.39	4.42
Fear X Ambivalence	4.20	4.36
Anger	5.07	4.82
Anger X Ambivalence	5.37	5.07
Party ID	1.52	1.54
Party ID Strength	1.14	1.14
Education	1.51	1.52
Knowledge	1.38	1.39
Income	1.32	1.33
Interest	1.28	1.27
Woman	1.05	1.05
Age	1.18	1.19
Black	1.16	1.16
Hispanic	1.06	1.06
Yr84	2.14	2.12
Yr88	2.08	1.99
Yr92	2.31	2.22
Yr96	1.93	1.92
Yr00	1.94	1.86
Yr04	1.74	1.74
Mean VIF	2.95	2.95

Enthusiasm Treated as Continuous

Tables 13A & 14A show the results when enthusiasm is modeled as a continuous variable rather no enthusiasm, some enthusiasm, and high enthusiasm as separate categories.

Table 13A: The Interactive Effects of Affect and Ambivalence on Attitude Formation (Enthusiasm Treated as Continuous)

	Democrat Attitude Strength OLS *B* (*SE*)	Republican Attitude Strength OLS *B* (*SE*)	Democrat Non-Attitudes Probit *B* (*SE*)	Republican Non-Attitudes Probit *B* (*SE*)
Ambivalence	-.507**	-.528**	1.38**	.968**
	(.033)	(.037)	(.189)	(.203)
Enthusiasm	.087**	.033*	-.641**	-.395**
	(.014)	(.014)	(.097)	(.087)
Enthusiasm	.183**	.258**	-.803**	-.796*
X Ambivalence	(.041)	(.041)	(.279)	(.249)
Fear	.089**	.045**	-.097	-.159*
	(.014)	(.014)	(.084)	(.075)
Fear X Ambivalence	-.169**	-.084*	.078	.181
	(.041)	(.038)	(.252)	(.225)
Anger	.051**	.043**	-.111	-.071
	(.012)	(.013)	(.079)	(.074)
Anger X Ambivalence	-.068*	-.117**	-.035	-.085
	(.035)	(.034)	(.229)	(.214)
Constant	.377**	.399**	-.633**	-.449**
	(.017)	(.018)	(.097)	(.093)
N	11,109	11,155	11,278	11,300

Note: $p<.01$**, $p<.05$*, $p<.10$^ Models also include controls for party identification, party identification strength, education, knowledge, interest in the election, female, age, black, Hispanic, and year.

Table 14A: The Interactive Effects of Affect and Ambivalence on Abstention (Enthusiasm Treated as Continuous)

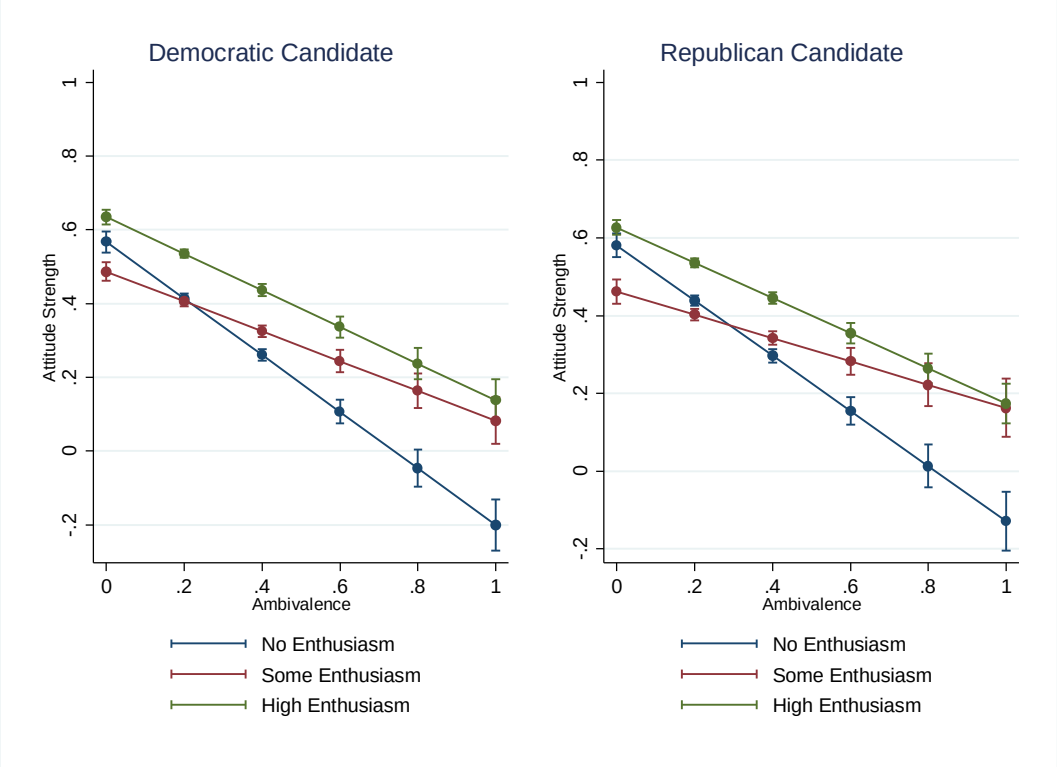
	Abstention (Full Sample) Probit *B* (*SE*)	Abstention (Low Income) Probit *B* (*SE*)	Abstention (Mid Income) Probit *B* (*SE*)	Abstention (High Income) Probit *B* (*SE*)
AmbivalenceD	.586**	.740*	.749*	.362
	(.203)	(.357)	(.370)	(.336)
EnthusiasmD	.267**	.396**	.353*	.041
	(.089)	(.142)	(.152)	(.159)
EnthusiasmD	-.993**	-1.31**	-1.14*	-.539
X AmbivalenceD	(.258)	(.452)	(.451)	(.456)
FearD	-.084	-.170	-.009	-.087
	(.084)	(.157)	(.133)	(.152)
FearD X AmbivalenceD	.001	.075	-.088	.107
	(.256)	(.417)	(.396)	(.464)
AngerD	.043	.048	.098	.023
	(.076)	(.137)	(.124)	(.137)
AngerD X AmbivalenceD	-.005	.075	-.288	.117
	(.228)	(.417)	(.374)	(.395)
AmbivalenceR	.176	.734*	-.155	-.028
	(.214)	(.381)	(.372)	(.373)
EnthusiasmR	-.177*	.112	-.387**	-.312*
	(.084)	(.143)	(.144)	(.160)
EnthusiasmR	-.182	-.955*	.490	-.126
X AmbivalenceR	(.246)	(.448)	(.421)	(.431)
FearR	-.055	.015	-.031	-.255^
	(.074)	(.122)	(.128)	(.148)
FearR X AmbivalenceR	.090	-.039	.239	.202
	(.220)	(.404)	(.375)	(.399)
AngerR	-.162*	-.105	-.149	-.239^
	(.073)	(.126)	(.127)	(.137)
AngerR X AmbivalenceR	.295	.165	.198	.497
	(.215)	(.403)	(.365)	(.366)
Constant	1.55**	1.34**	1.40**	1.24**
	(.117)	(.197)	(.200)	(.223)
N	10,025	3,318	3,418	3,289

Note: $p \leq .01$**, $p \leq .05$*, $p \leq .10$^ Models also include controls for party identification, party identification strength, education, knowledge, interest in the election, female, age, black, Hispanic, and year.

Robustness Check 1: Analyses with Ambivalence Tails trimmed to 0.5 or less

The distribution of the ambivalence measures each have a positive skew.[2] This means cases with higher levels of ambivalence will have more leverage over the estimated effects. Since these ambivalent individuals are, in many ways the focus of the study, they have been left in the analyses presented in the paper. However, as a robustness check, in Figures 10A-14A I have replicated each of the analyses presented in the paper after removing the tails of the ambivalence measures (all respondents who scored above 0.5 on ambivalence), from the analyses. For consistency in presentation, and because there obviously are individuals who scores above 0.5 on ambivalence), I continue to graph the predictions across the entire ambivalence scale. As the reader can see, the results appear remarkably robust across each of the tests conducted in the paper. This suggest that while the effects are strongest among those with relatively high levels of ambivalence, they are not limited to these individuals.

Figure 10A: Positive Affect Moderates the Effect of Ambivalence on Attitude Strength Even After Trimming the Ambivalence Scale



[2] There is a long tail that you can't see in the figures. It runs all the way to 1.0.

Figure 11A: Positive Affect Moderates the Effect of Ambivalence on "Non-Attitudes" Even After Trimming the Ambivalence Scale

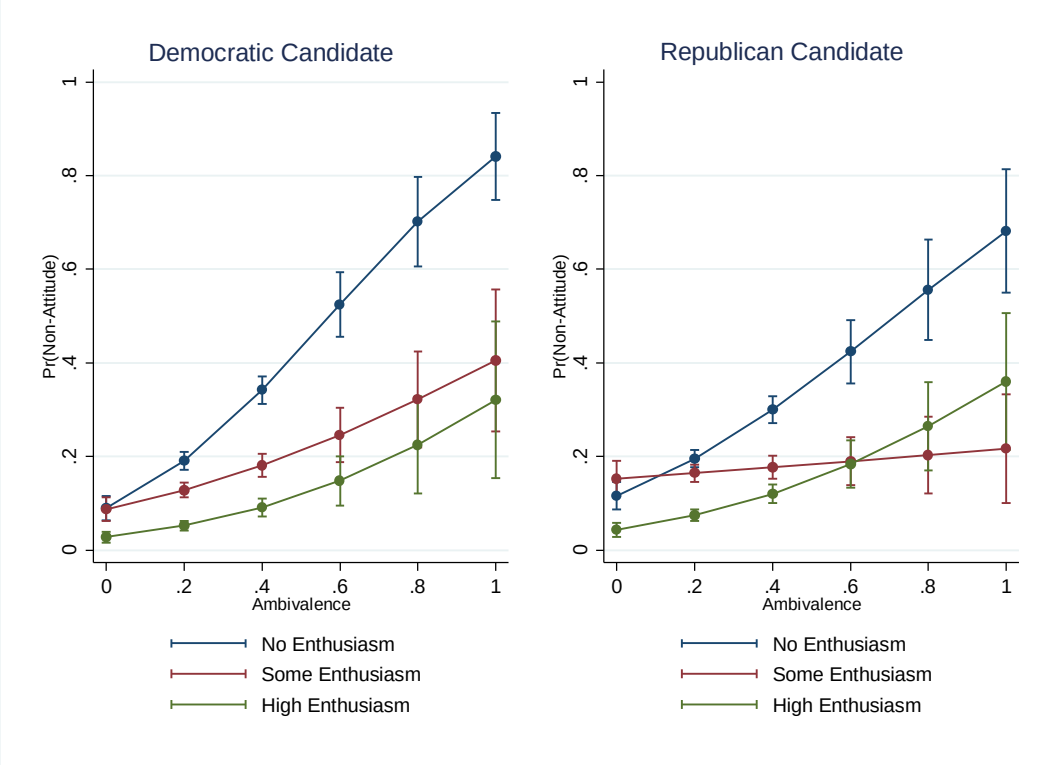
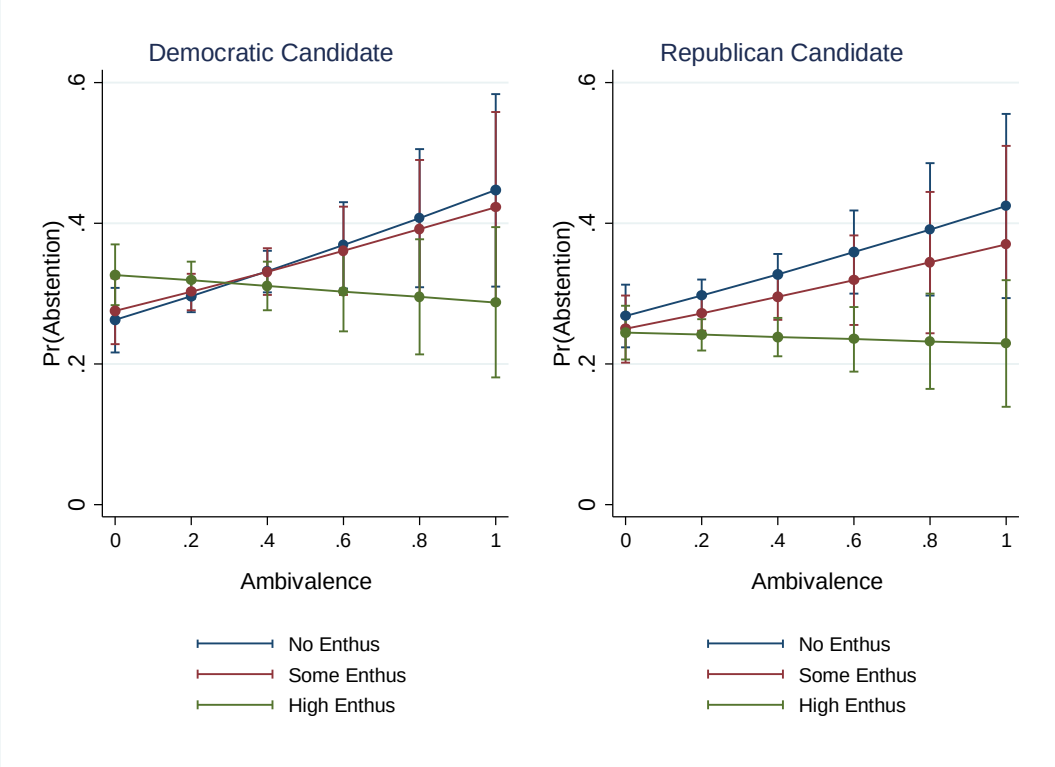


Figure 12A: Positive Affect Moderates the Effect of Ambivalence on Turnout Even After Trimming the Ambivalence Scale (Predicted Probability (Top), Marginal Effects of Interaction (Bottom)



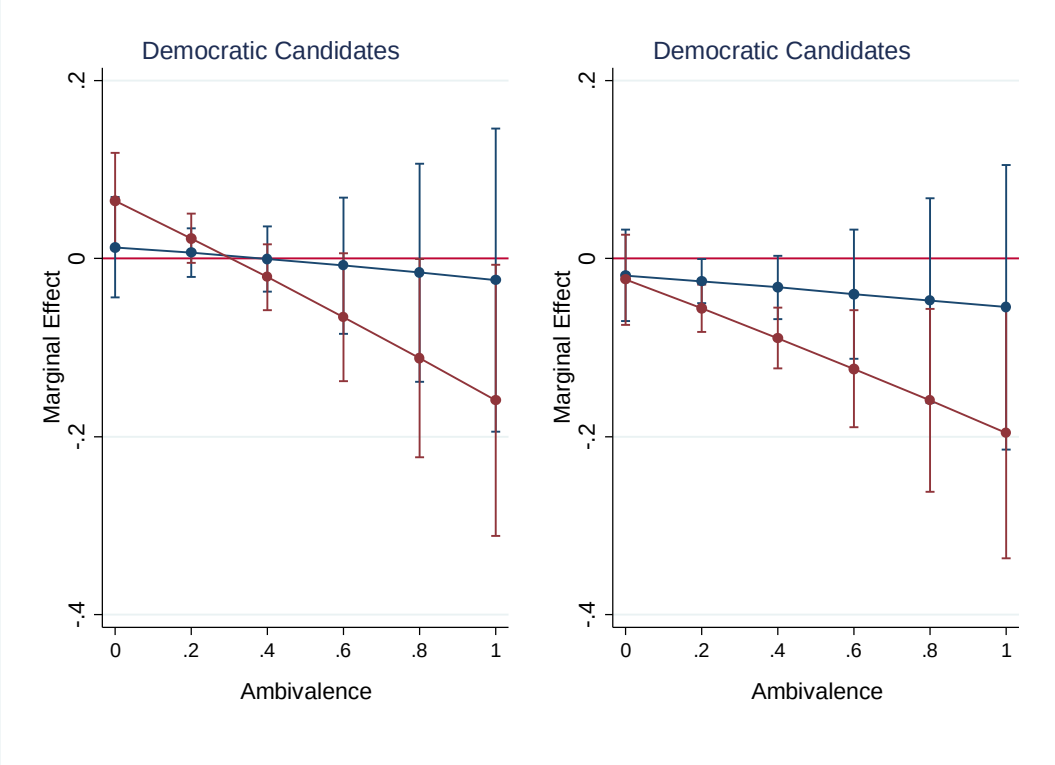


Figure 13A: Positive Affect Moderates the Effect of Ambivalence on Turnout Among Lower Income Individuals After Trimming the Ambivalence Scale

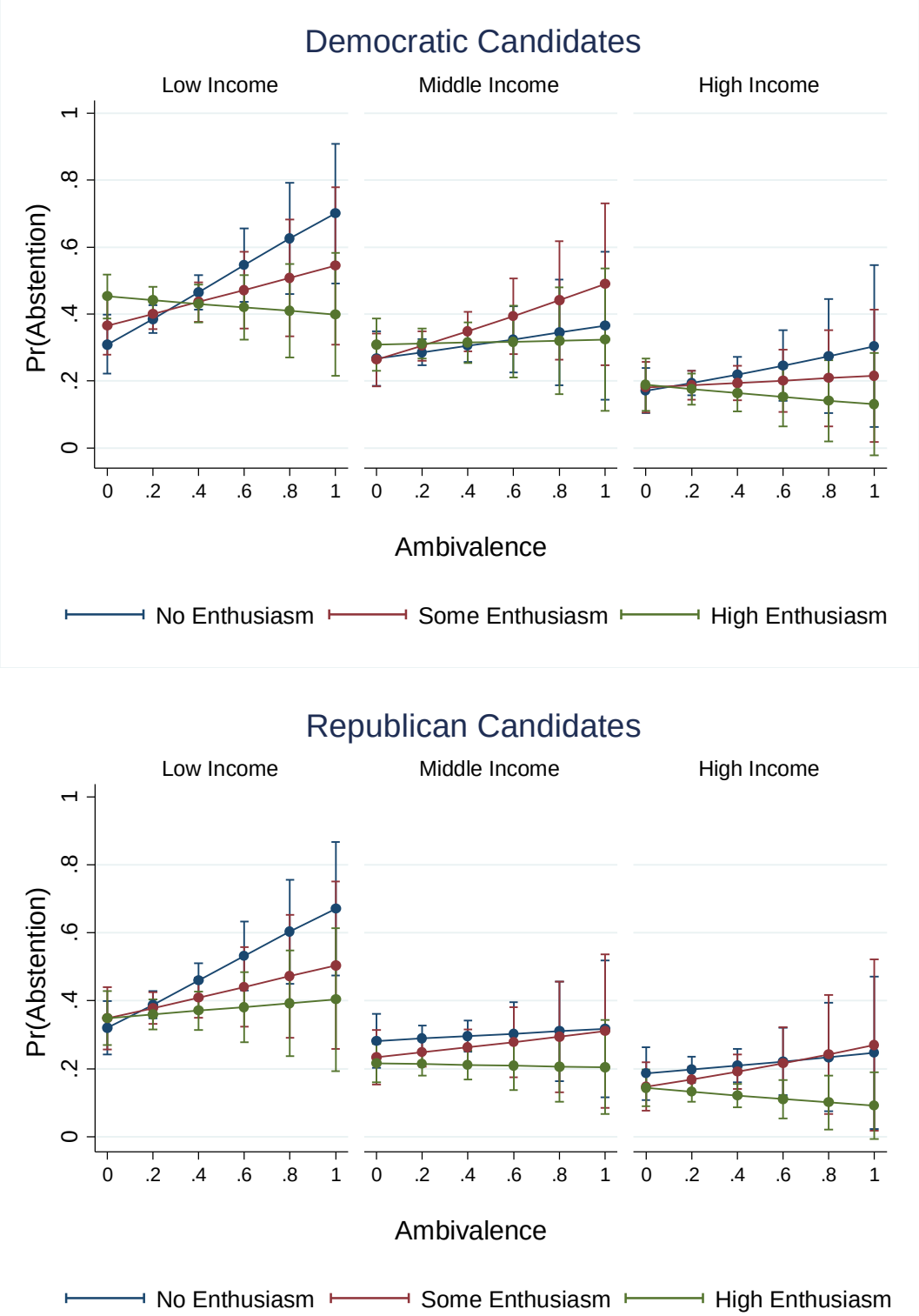
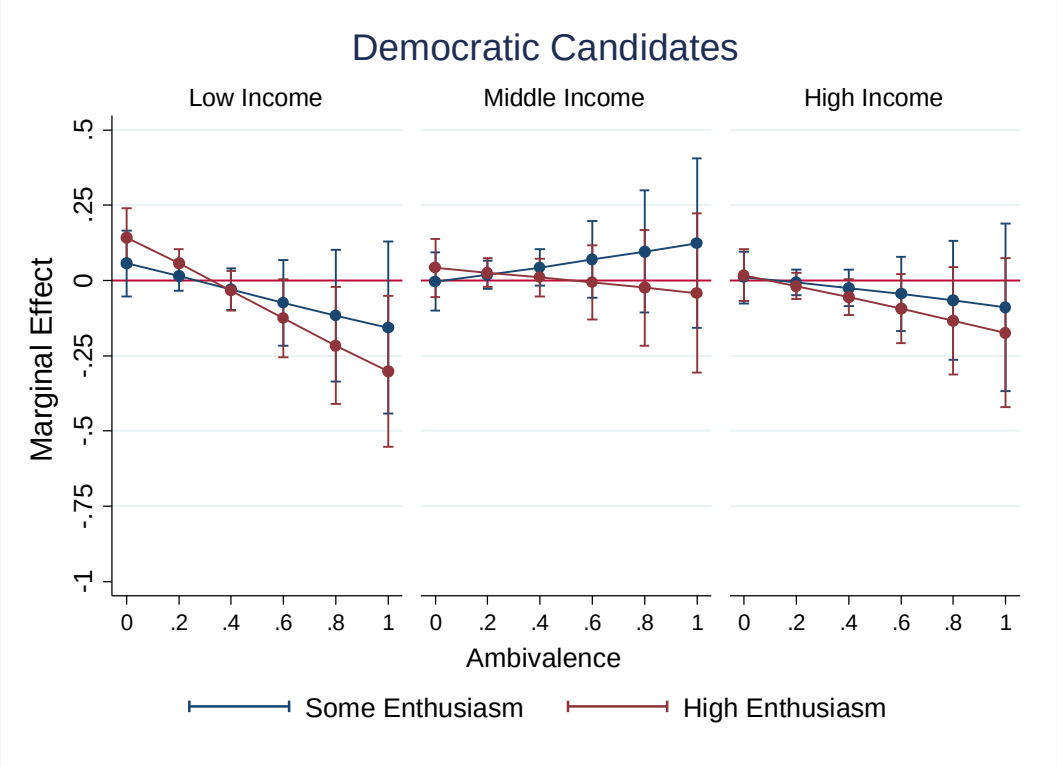
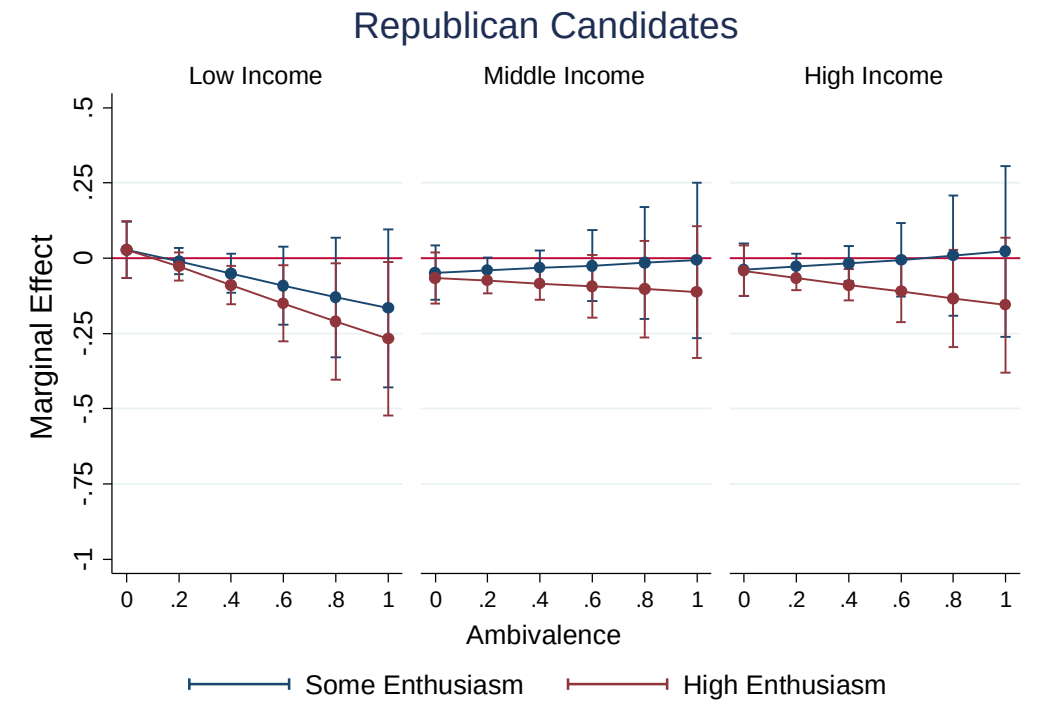


Figure 14A: The Marginal Effects of the Interaction Between Positive Affect and Ambivalence on Abstention by Income After Trimming the Ambivalence Scale





Robustness Check 2: Controlling for the Interaction of Party Identification Strength

One might wonder whether the large and apparently robust effects of enthusiasm are simply capturing the effect of party identification strength. After all, one would expect strong partisans to be among the most enthusiastic about their party's candidate. Thus, although party identification strength is already controlled in each of the models presented in the paper, I replicated each of the analyses after interacting it with ambivalence. Figures 15A-19A show that the results remain incredibly robust. In fact, they are virtually unchanged from those presented in the paper. As it turns out, party identification strength tends to have relatively little interaction effect. And, if anything, the effect appears to run in the opposite direction as enthusiasm, which makes sense in light of the literature on partisan ambivalence. Ambivalence may be particularly problematic for strong partisans, because it violates norms of partisanship.

Figure 15A: Positive Affect Moderates the Effect of Ambivalence on Attitude Strength After Controlling for the Interaction of Party Identification Strength

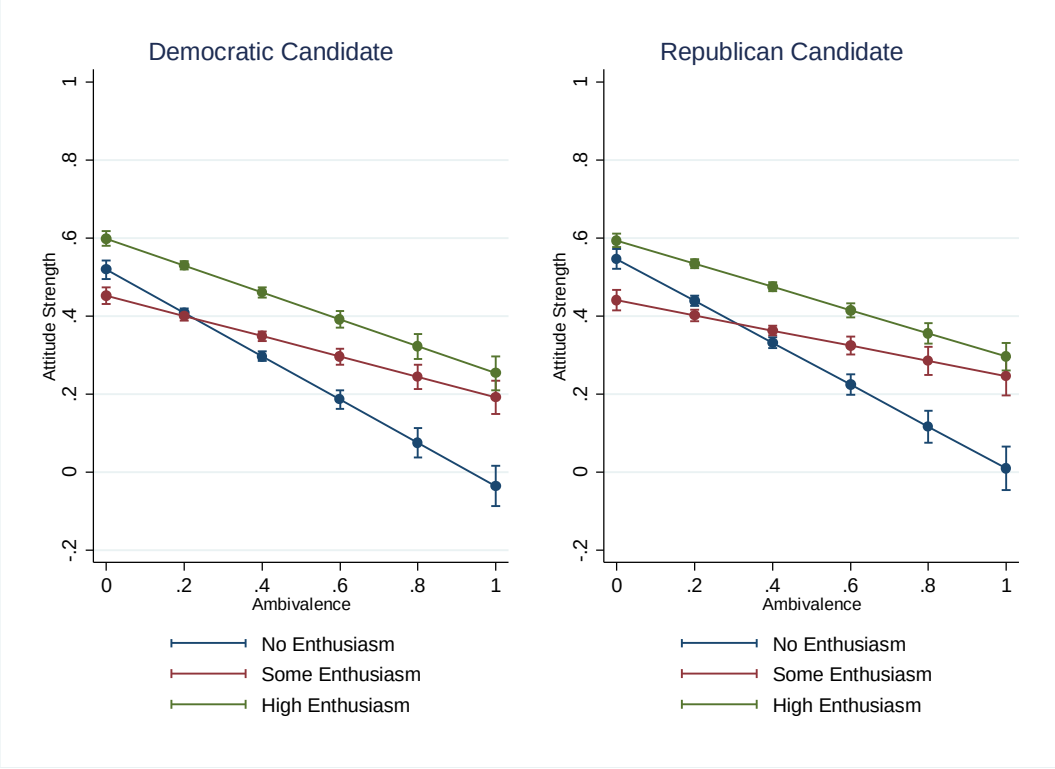


Figure 16A: Positive Affect Moderates the Effect of Ambivalence on "Non-Attitudes" After Controlling for the Interaction of Party Identification Strength

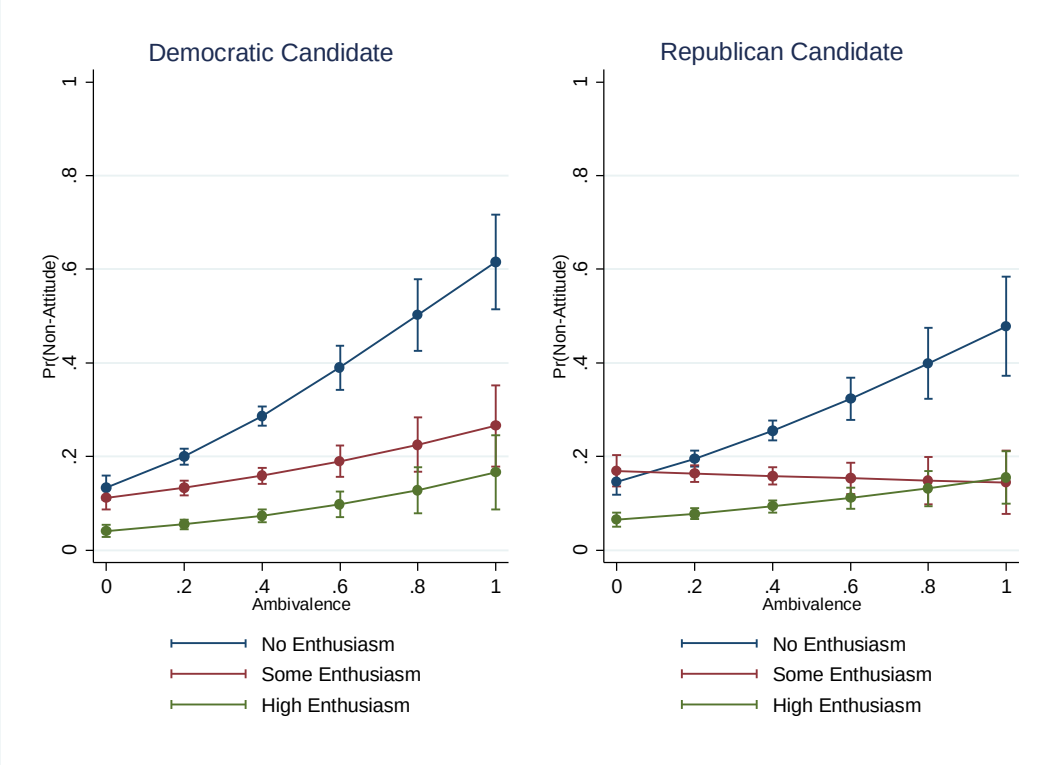
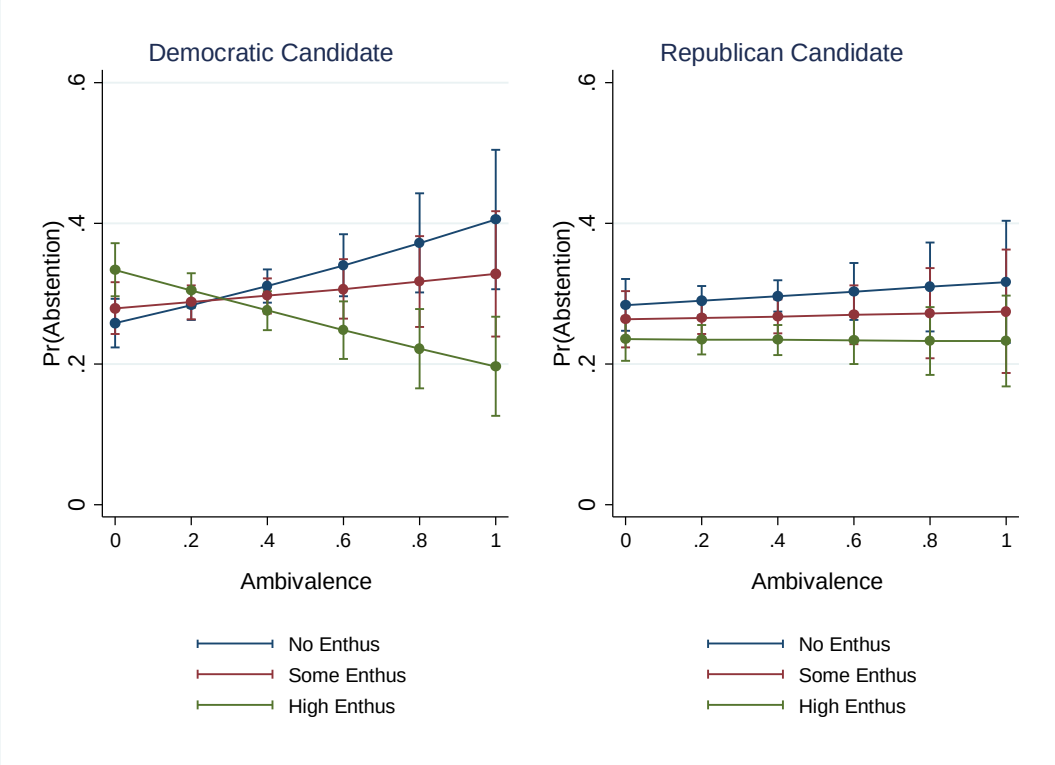


Figure 17A: Positive Affect Moderates the Effect of Ambivalence on Turnout After Controlling for the Interaction of Party Identification Strength (Predicted Probability (Top), Marginal Effects of Interaction (Bottom))



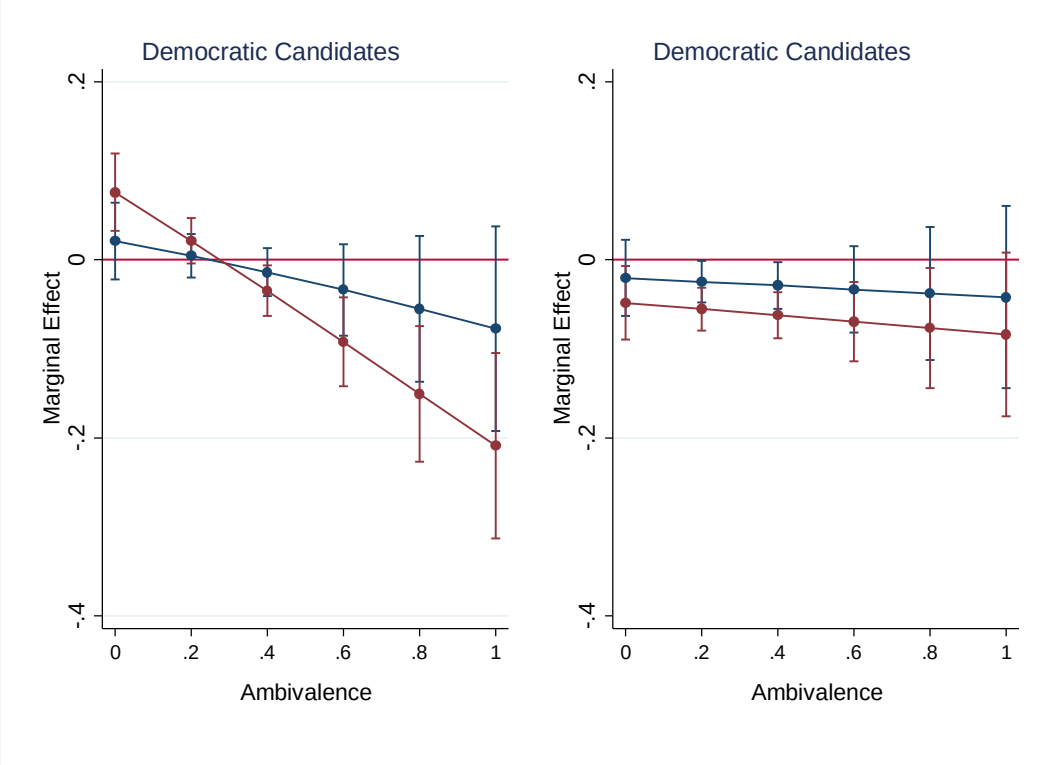
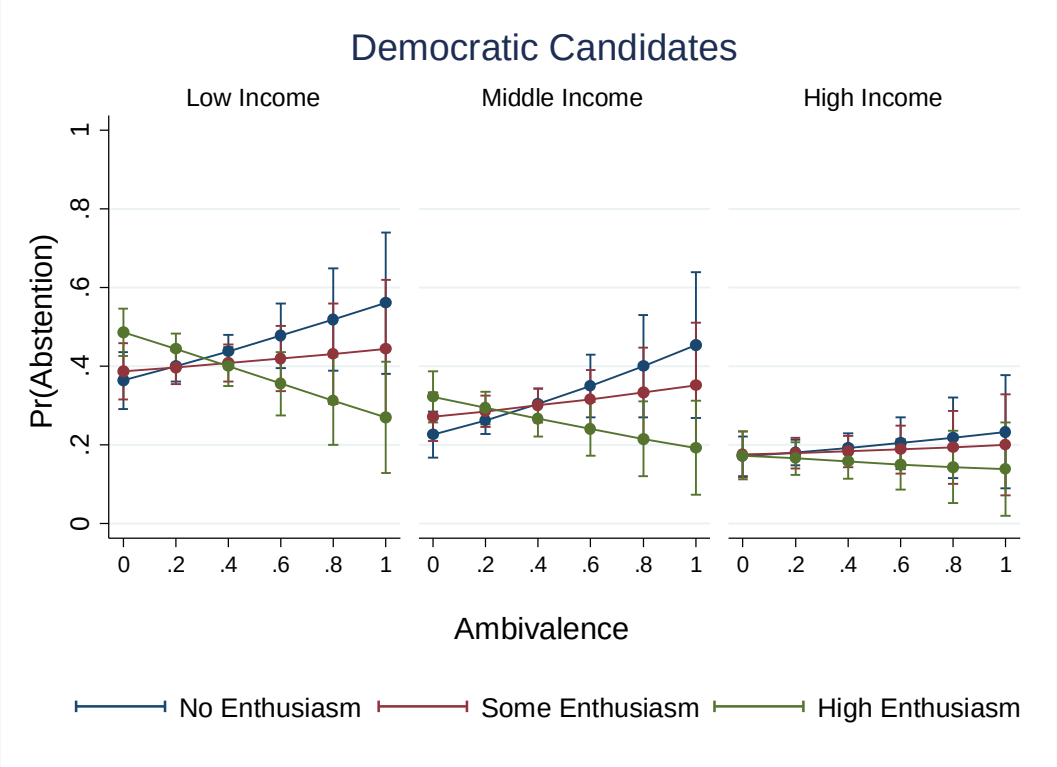


Figure 18A: Positive Affect Moderates the Effect of Ambivalence on Turnout Among Lower Income Individuals After Controlling for the Interaction of Party Identification Strength



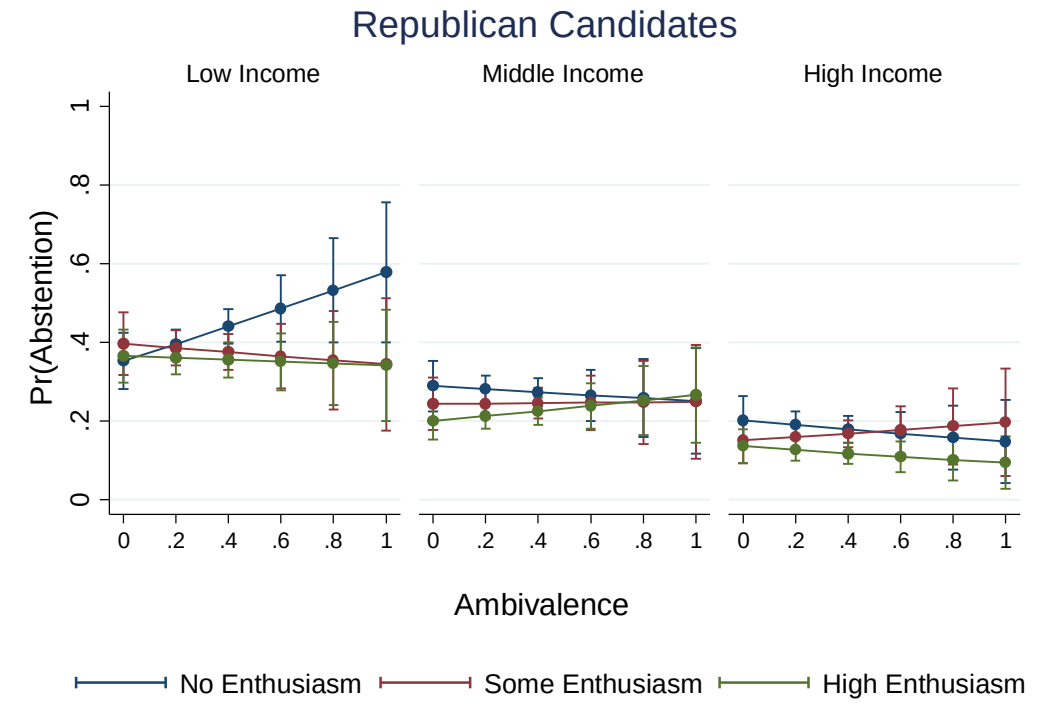
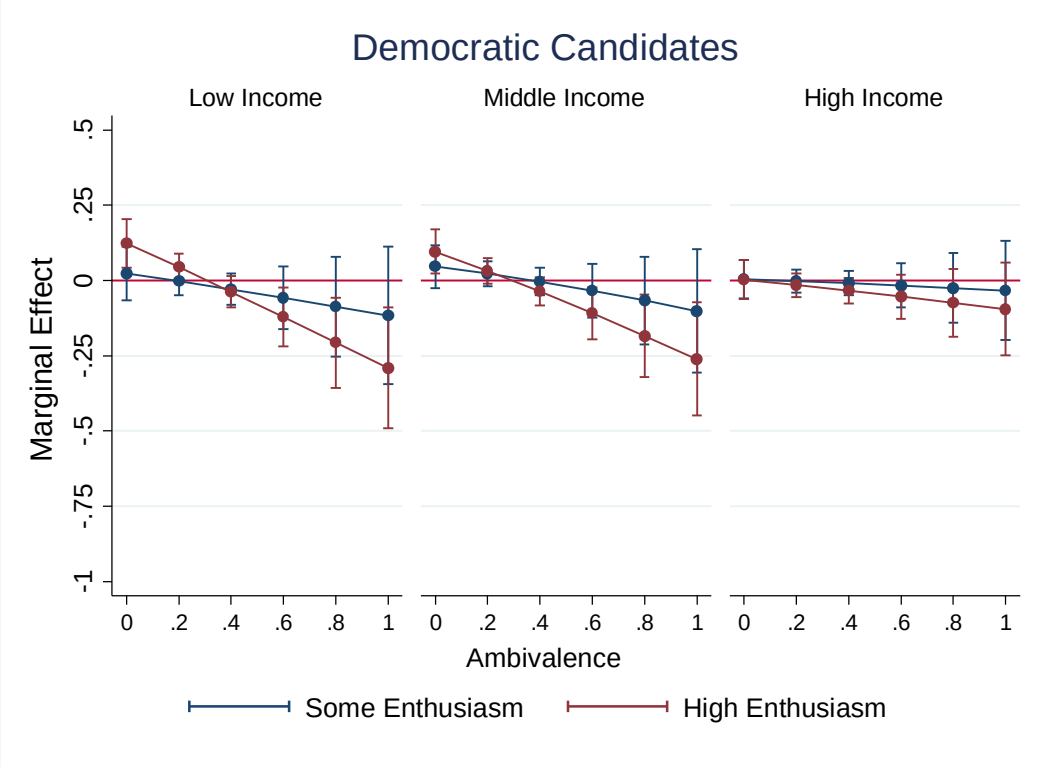
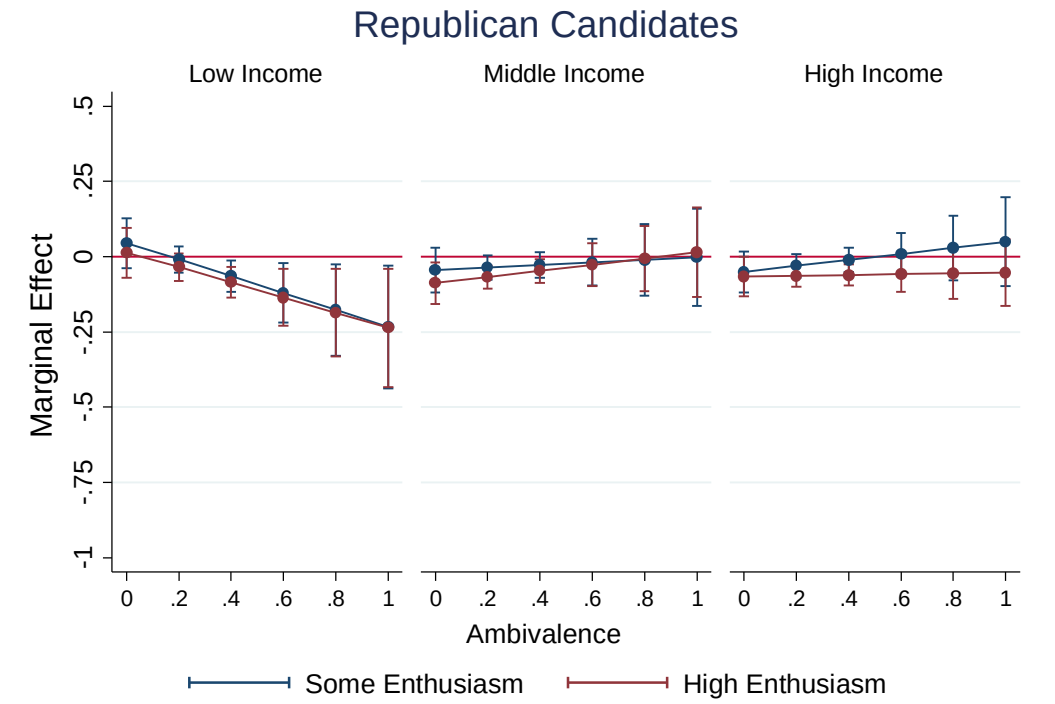


Figure 19A: The Marginal Effects of the Interaction Between Positive Affect and Ambivalence on Abstention by Income (After Controlling for the Interaction of Party Identification Strength)

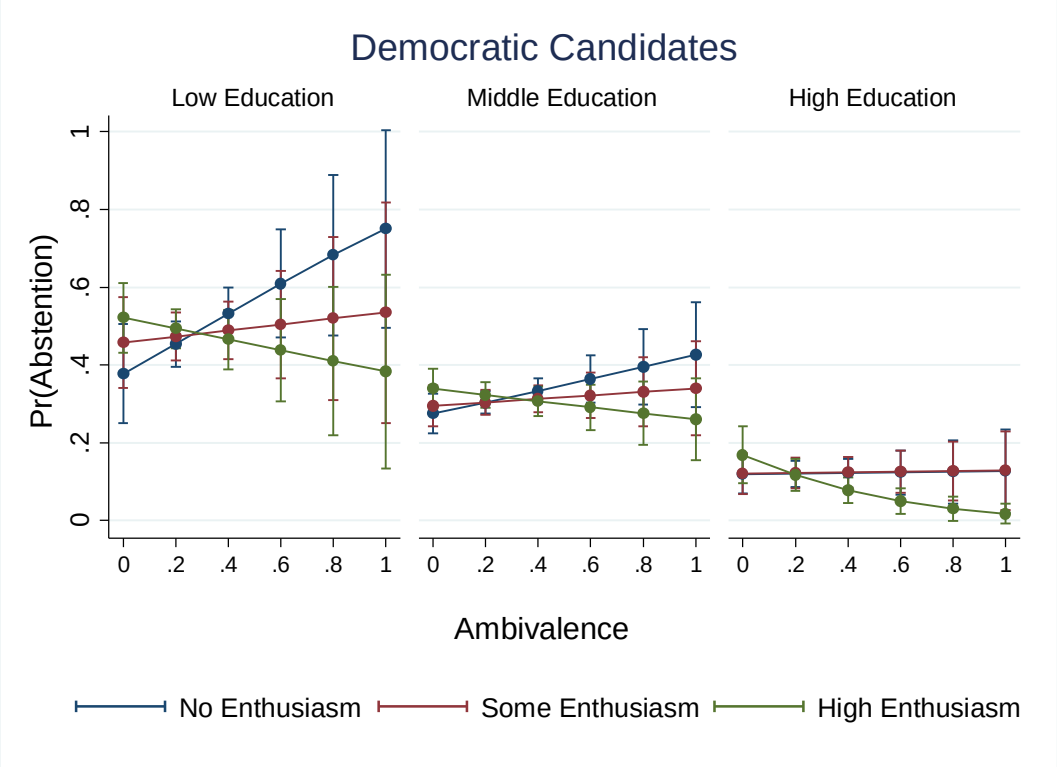




Robustness Check 3: Does Disaggregating by Education Produce the Same Effect as Disaggregating by Income?

Because income and education are both aspects of one's socioeconomic status, and both affect one's likelihood of turnout, one would expect them to function similarly in the context of the model. In other words, just as turnout hangs in the balance for individuals with low income (controlling for education), it also hangs in the balance for those with low education (controlling for income). Therefore, absent positive affect, one would expect ambivalence to be most demobilizing among either those with low income or those with low education. Therefore, positive affect should also show its biggest moderating effect within this group. Figure 20A and 21A show that this is precisely what happens. Education functions nearly identically to income. The only difference is that, for Republican candidates, the effect narrowly missed the threshold for establishing statistical significance. For Democratic candidates, the effect is significant across much of the ambivalence scale.

Figure 20A: Positive Affect Moderates the Effect of Ambivalence on Turnout Among Lower Individuals with Lower Levels of Education



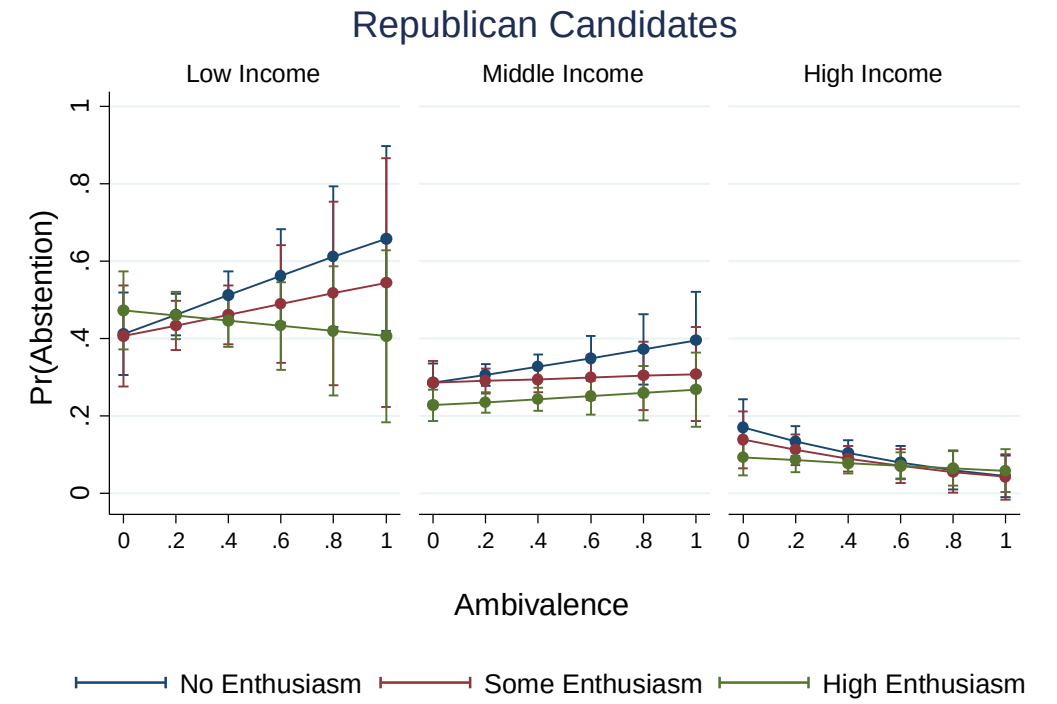
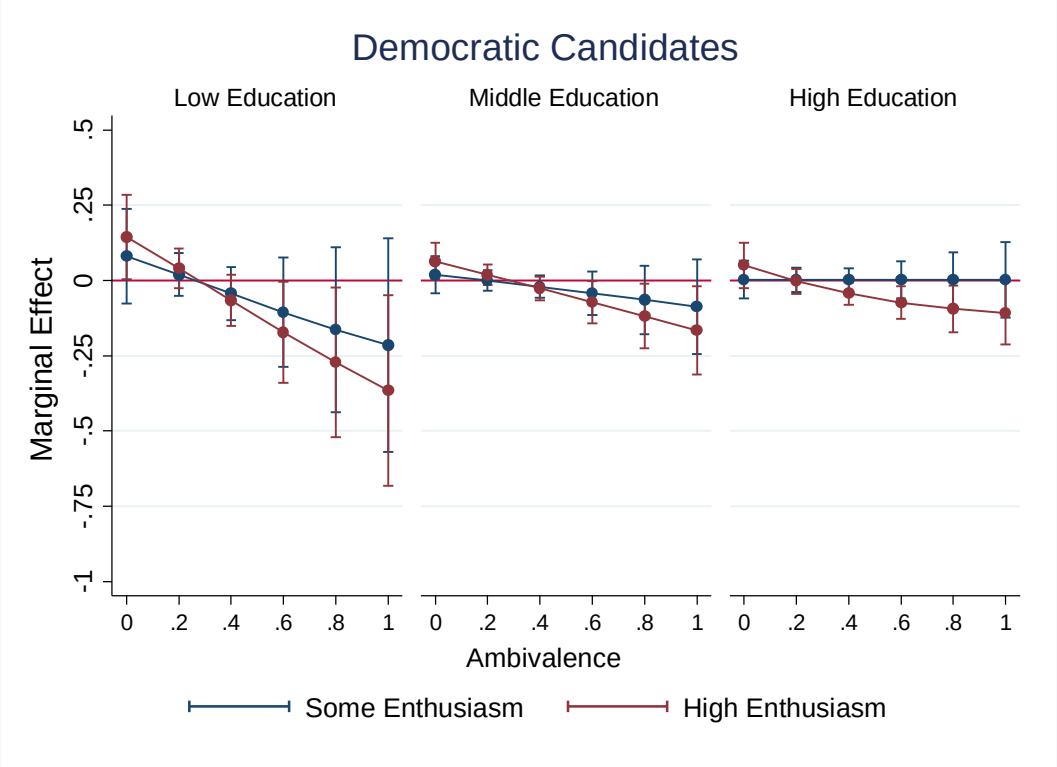
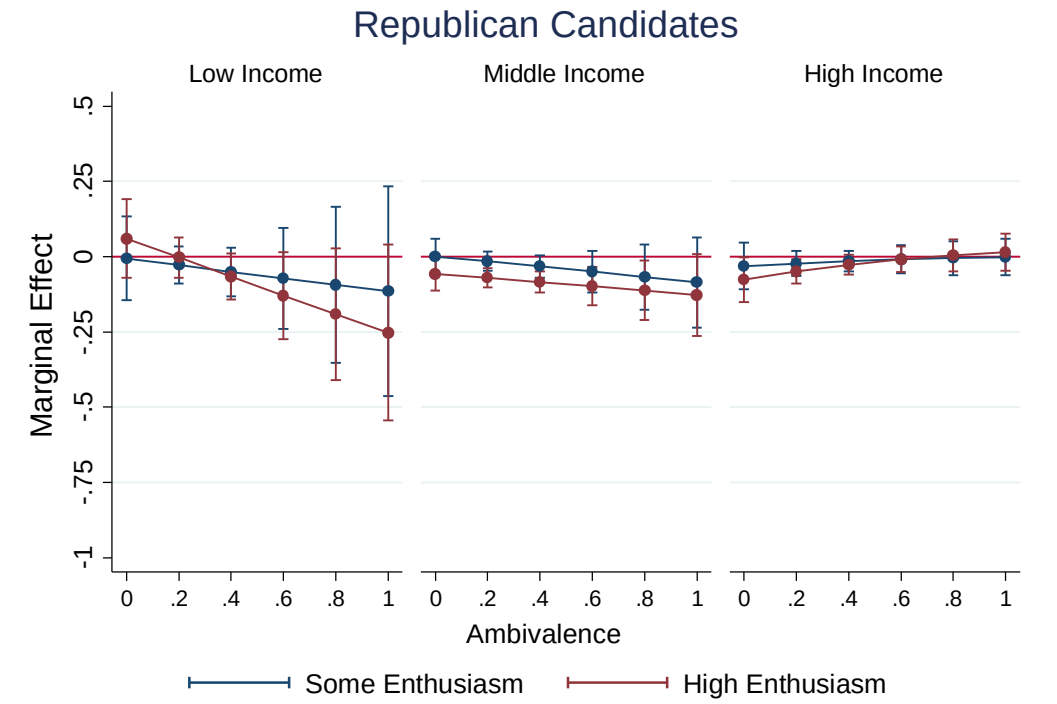


Figure 21A: The Marginal Effects of the Interaction Between Positive Affect and Ambivalence on Abstention by Education Level

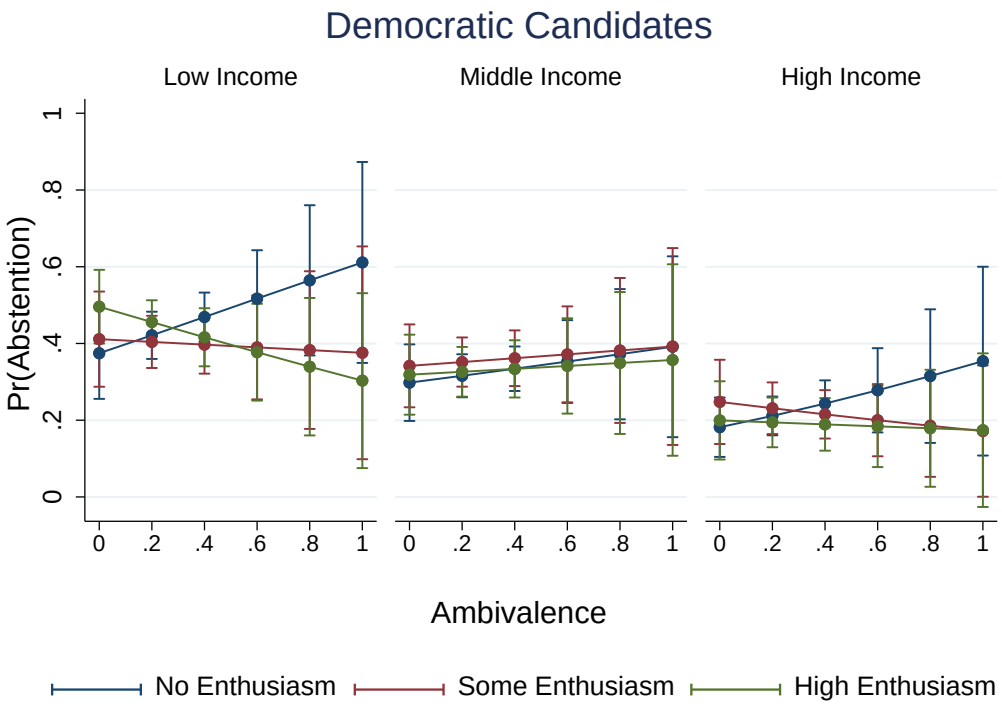




Robustness Check 4: Do the Turnout Findings Hold for Validated Vote?

Given survey respondents' tendency to overreport turnout, the American National Elections Studies (ANES) have periodically engaged in the massive undertaking of validating their turnout measure using actual voting records. Although the validated vote measure only appears in 1980, 1984, and 1988, reducing the *N* by more than half, the results displayed in Figures 22A and 23A again show that the findings are remarkably robust.

Figure 22A: Positive Affect Moderates the Effect of Ambivalence on Validated Turnout



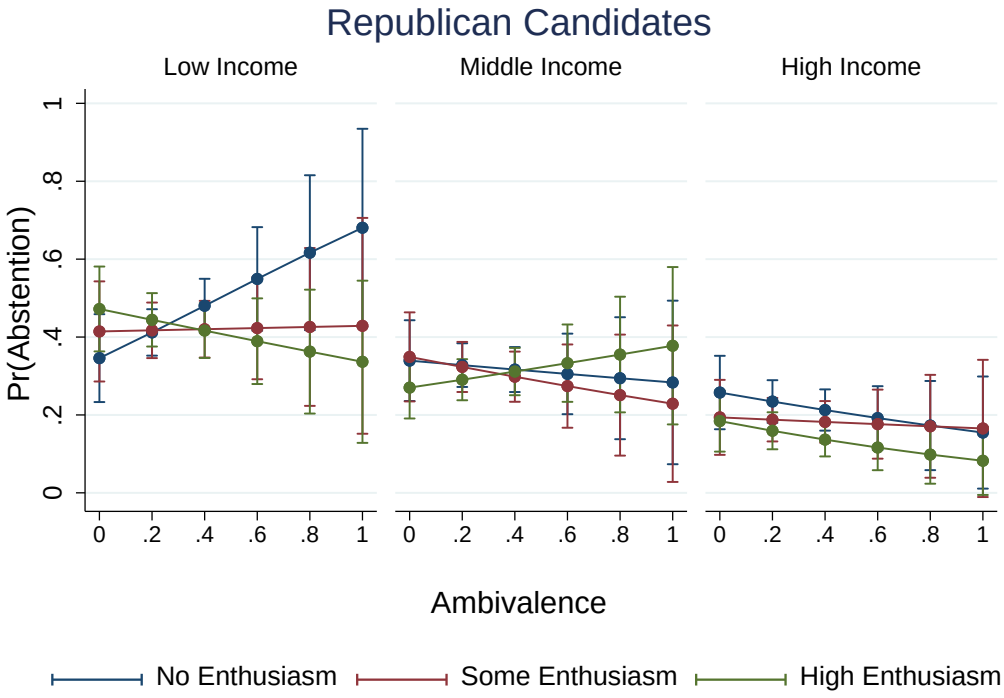
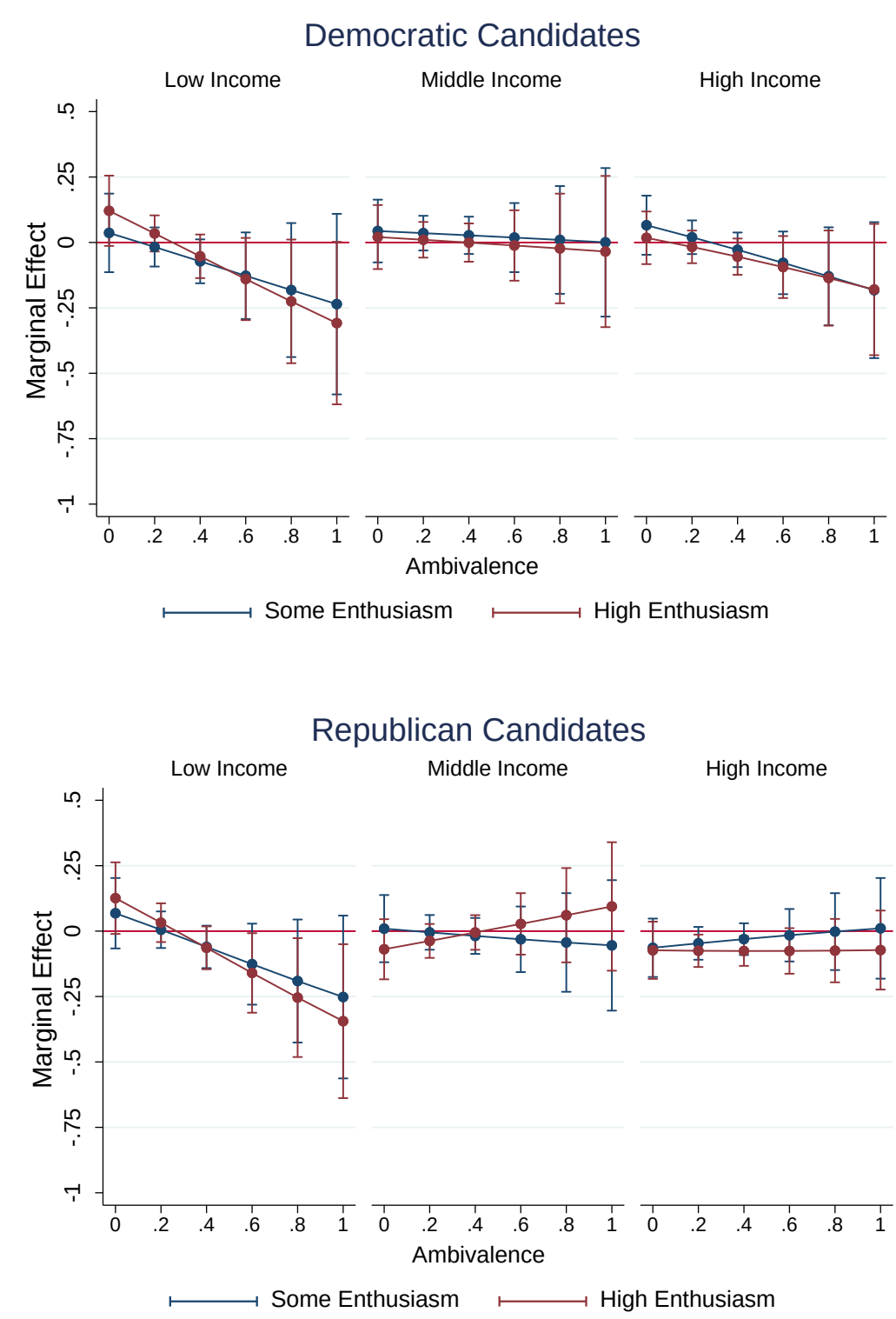


Figure 23A: The Marginal Effects of the Interaction Between Positive Affect and Ambivalence on Validated Turnout



Robustness Check 5: Replications with Only Candidate Traits Mentioned in Ambivalence Measure (Figures 24A-28A) and Only Candidates Issue Positions Mention in Ambivalence Measure (Figures 29A-33A)

In Figures 24A-28A, I replicated each of the analyses presented in the paper after excluding mentions of anything other than candidate traits in the ambivalence measure. Again, results prove remarkably robust, despite the restricted sample. Candidate traits are the features most commonly mentioned when respondents are asked what they like and dislike about candidates.

In Figures 29A-33A, I replicated each of the analyses presented in the paper after excluding mentions of anything other than the candidates' issue positions from the ambivalence measure. This restricted the sample even more, which did affect the confidence intervals. Most of the results remain statistically significant across much of the ambivalence scale. However, when looking within income groups, the sample restriction becomes too much, and the results cease to be statistically significant. Noteworthy, however, is that even here, the pattern appears remarkably similar to the results presented in the paper.

Figure 24A: Positive Affect Moderates the Effect of Ambivalence on Attitude Strength (Analyses Restricted to Ambivalence Toward Candidate Traits)

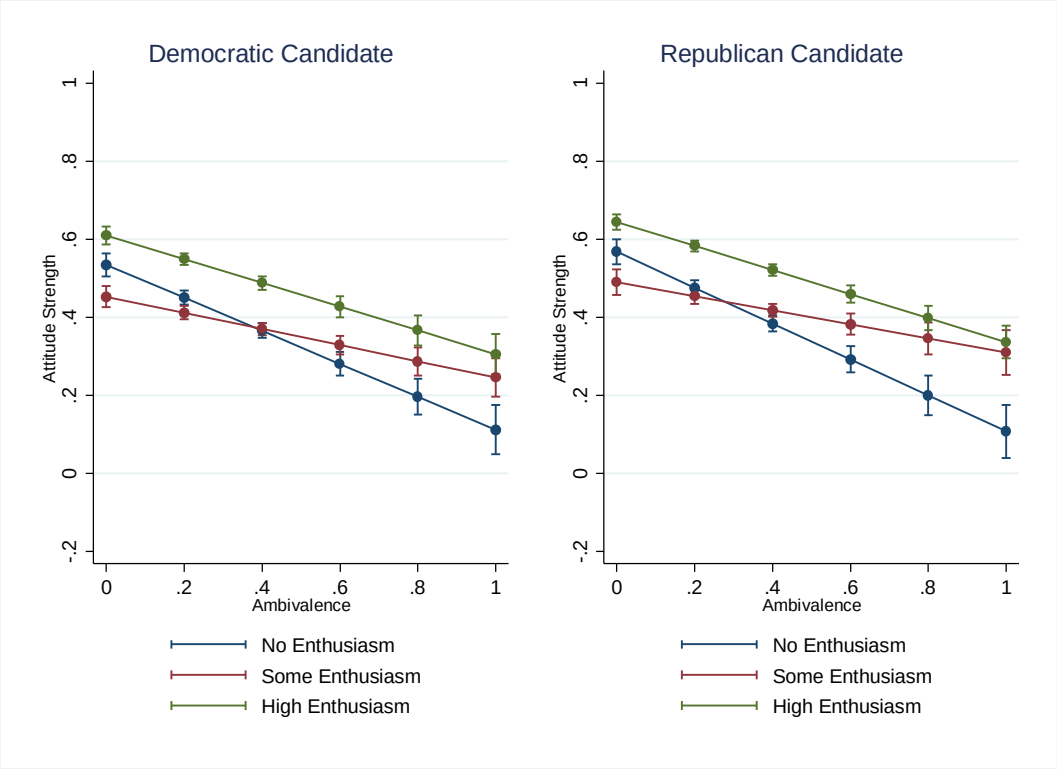


Figure 25A: Positive Affect Moderates the Effect of Ambivalence on "Non-Attitudes" (Analyses Restricted to Ambivalence Toward Candidate Traits)

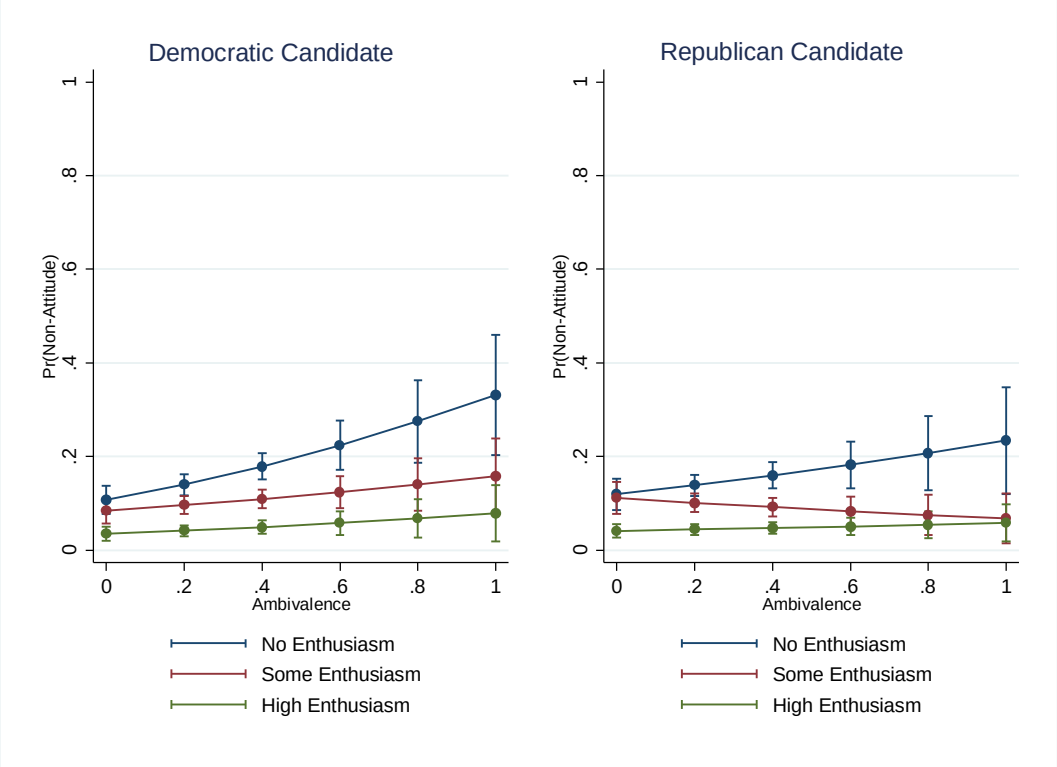


Figure 26A: Positive Affect Moderates the Effect of Ambivalence on Turnout (Analyses Restricted to Ambivalence Toward Candidate Traits)

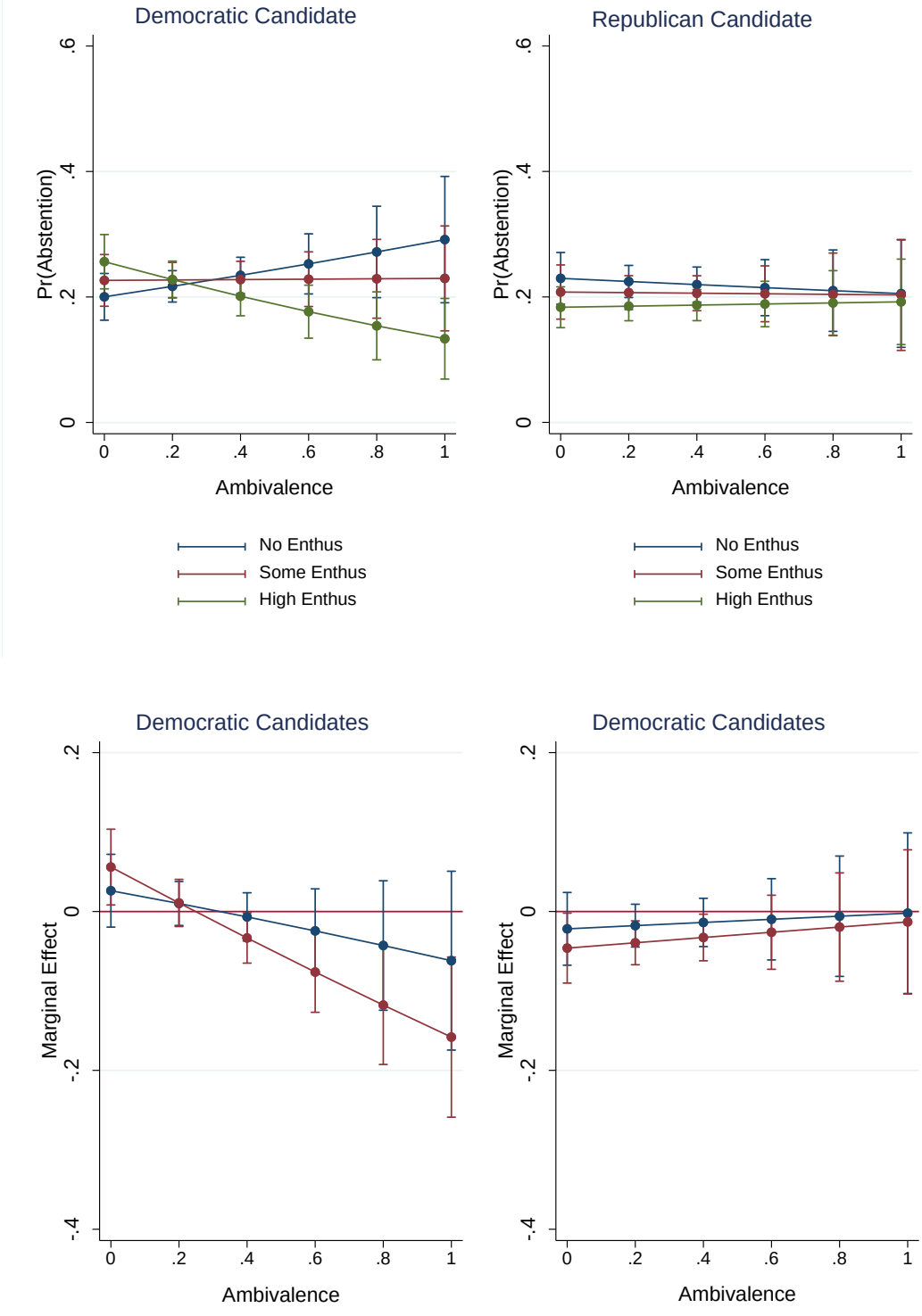
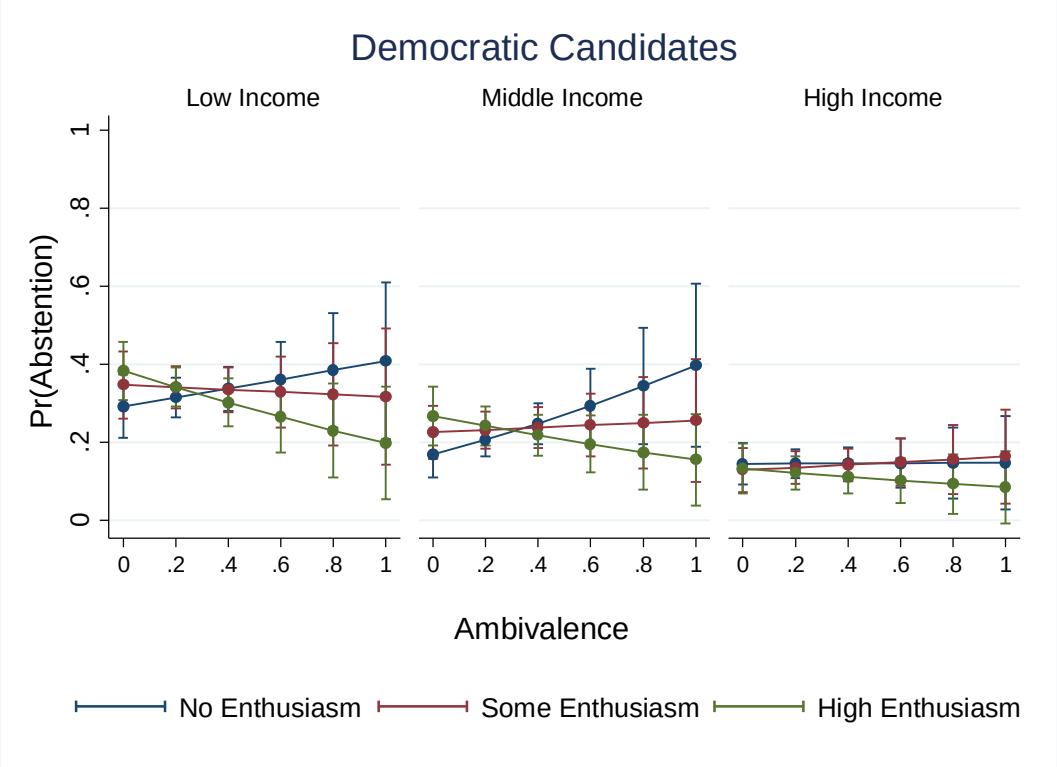


Figure 27A: Positive Affect Moderates the Effect of Ambivalence on Turnout Among Lower Income Individuals (Analyses Restricted to Ambivalence Toward Candidate Traits)



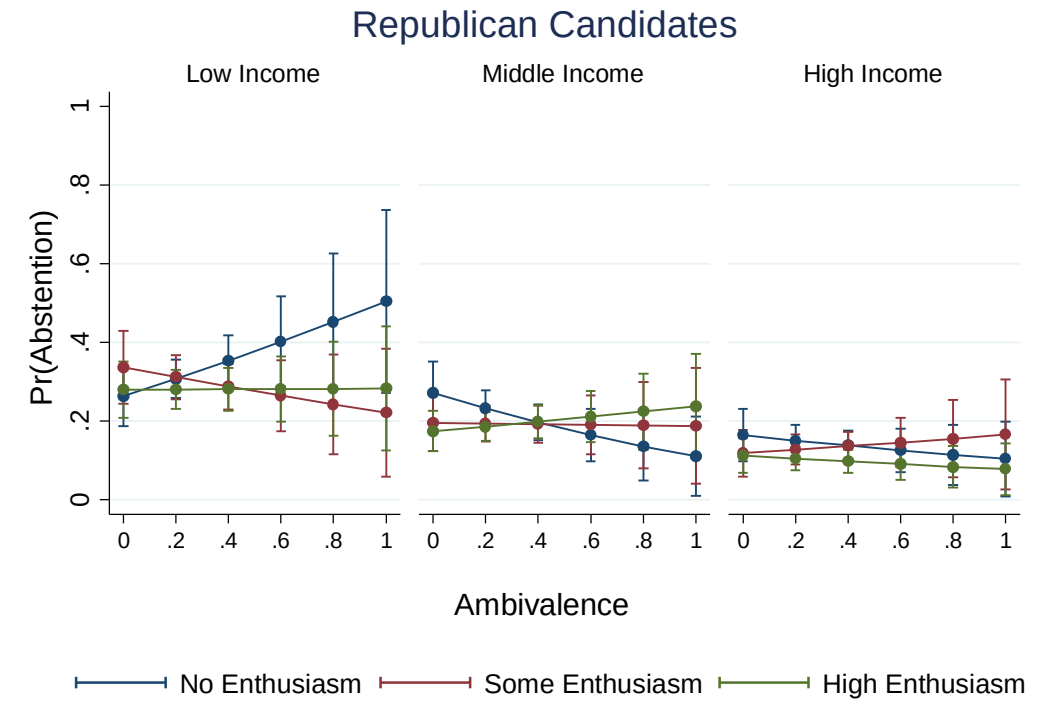


Figure 28A: The Marginal Effects of the Interaction Between Positive Affect and Ambivalence on Abstention by Income (Analyses Restricted to Ambivalence Toward Candidate Traits)

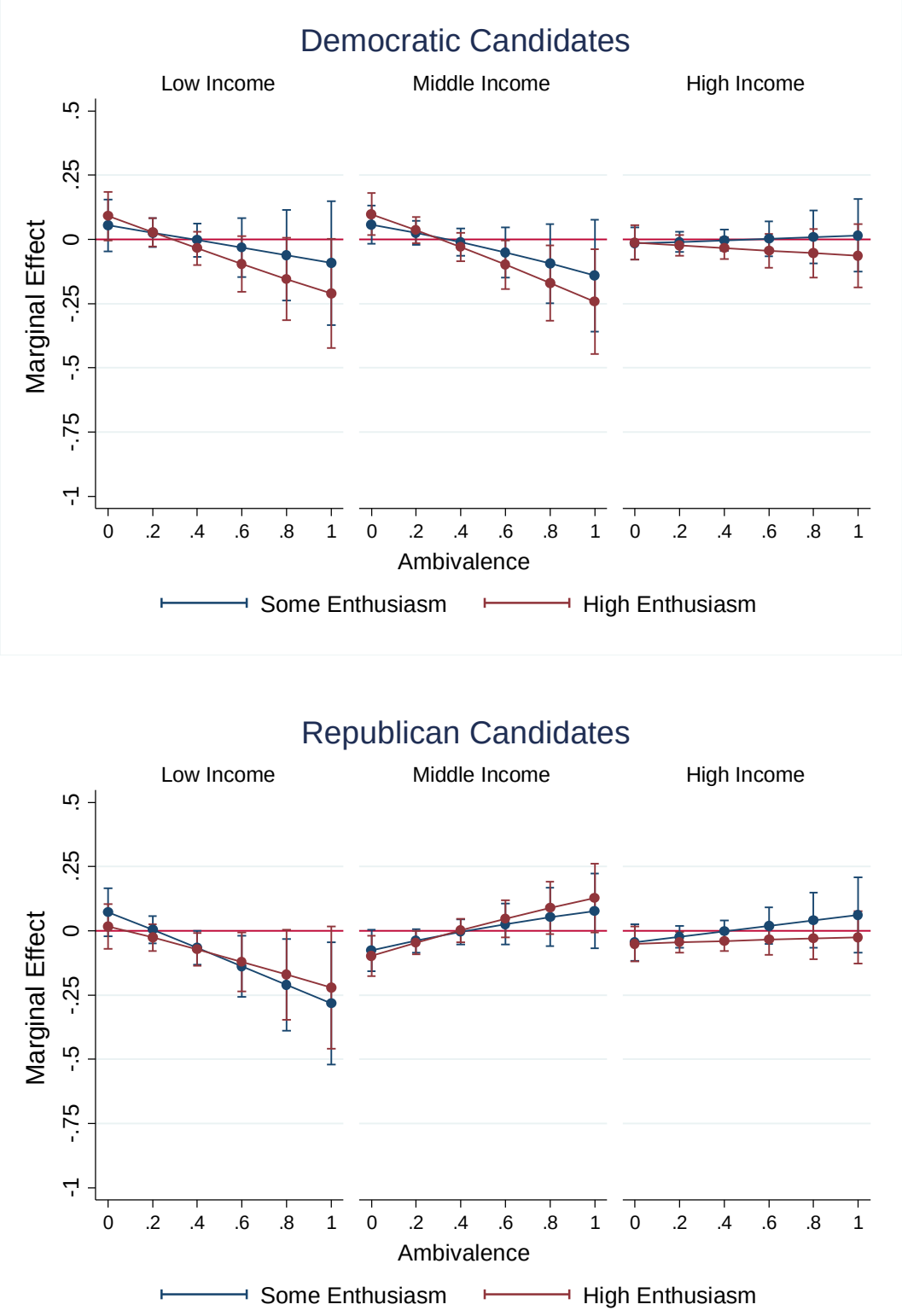


Figure 29A: Positive Affect Moderates the Effect of Ambivalence on Attitude Strength (Analyses Restricted to Ambivalence Toward Candidate Issue Positions)

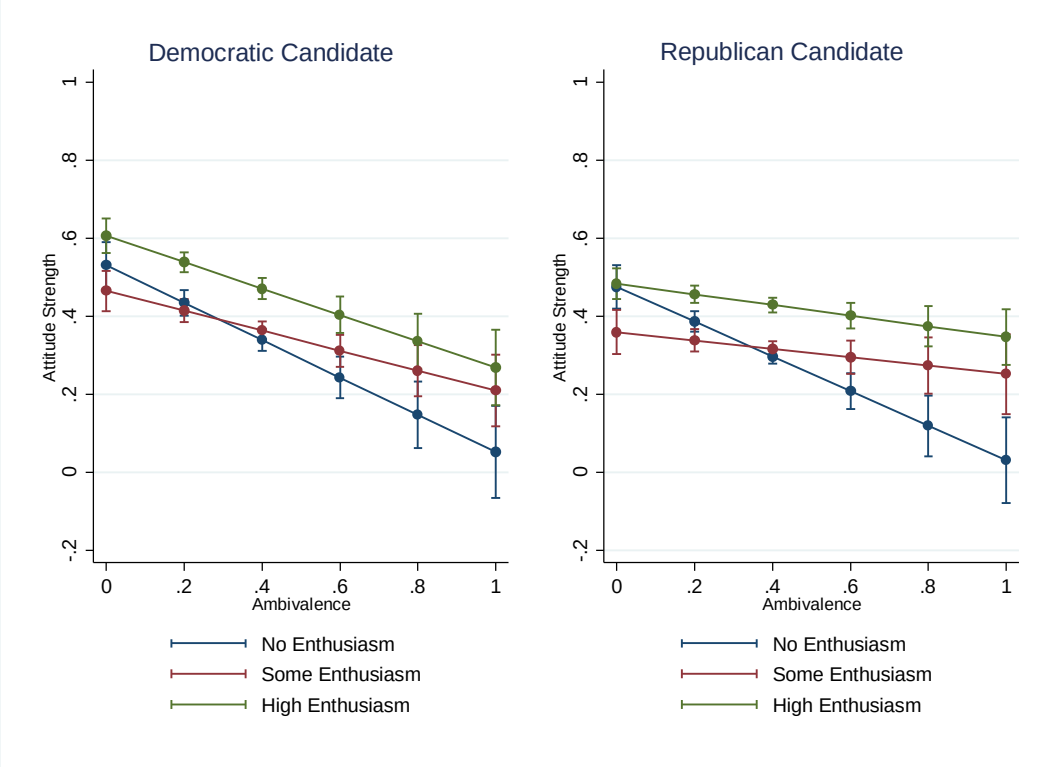


Figure 30A: Positive Affect Moderates the Effect of Ambivalence on "Non-Attitudes" (Analyses Restricted to Ambivalence Toward Candidate Issue Positions)

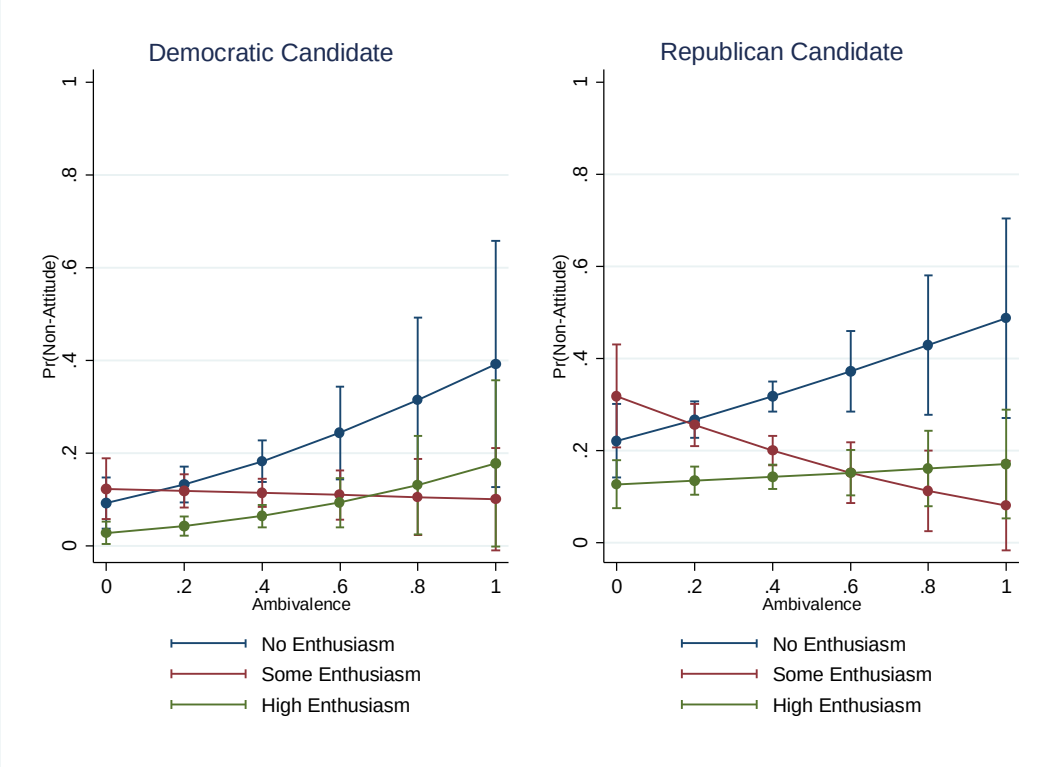
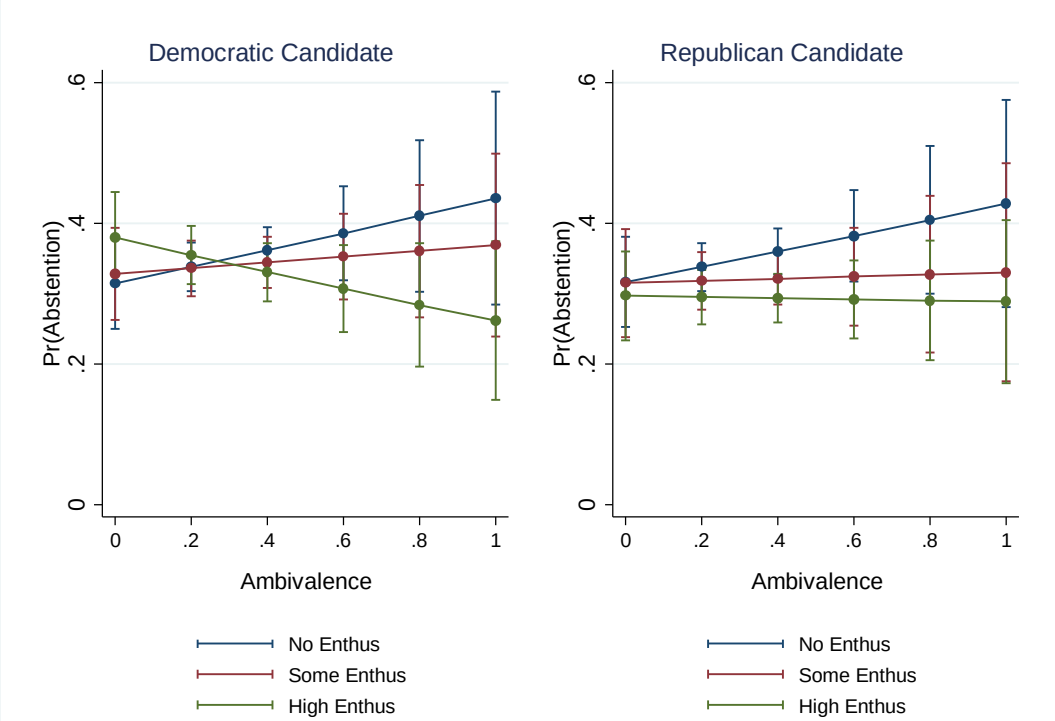


Figure 31A: Positive Affect Moderates the Effect of Ambivalence on Turnout (Analyses Restricted to Ambivalence Toward Candidate Issue Positions, Predicted Probability (Top), Marginal Effects of Interaction (Bottom))



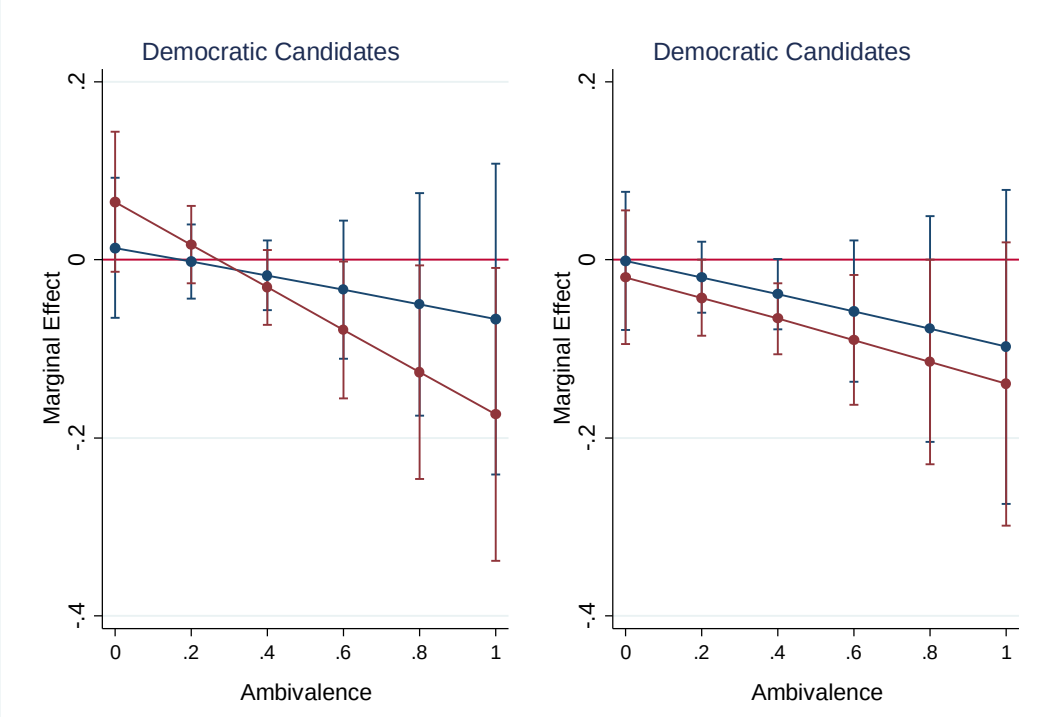


Figure 32A: Positive Affect Non-Significantly Moderates the Effect of Ambivalence on Turnout Among Lower Income Individuals (Analyses Restricted to Ambivalence Toward Candidate Issue Positions)

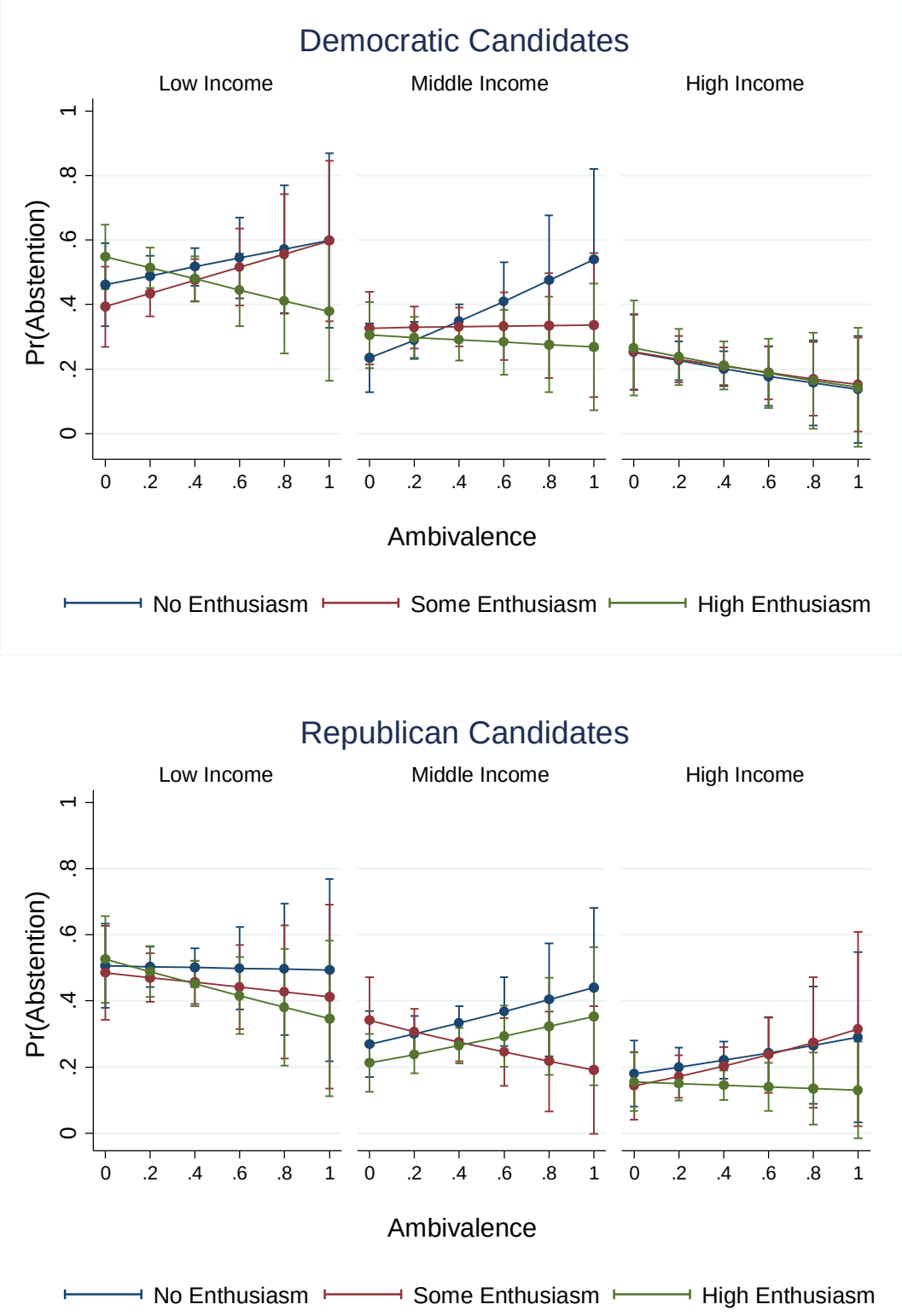
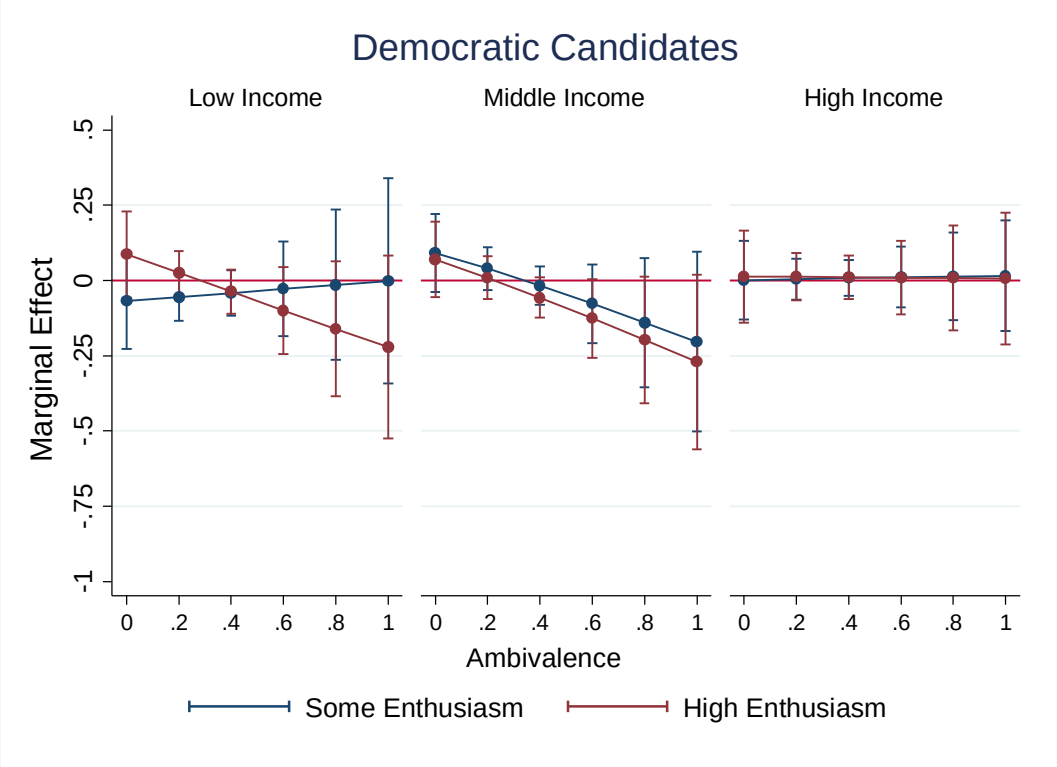
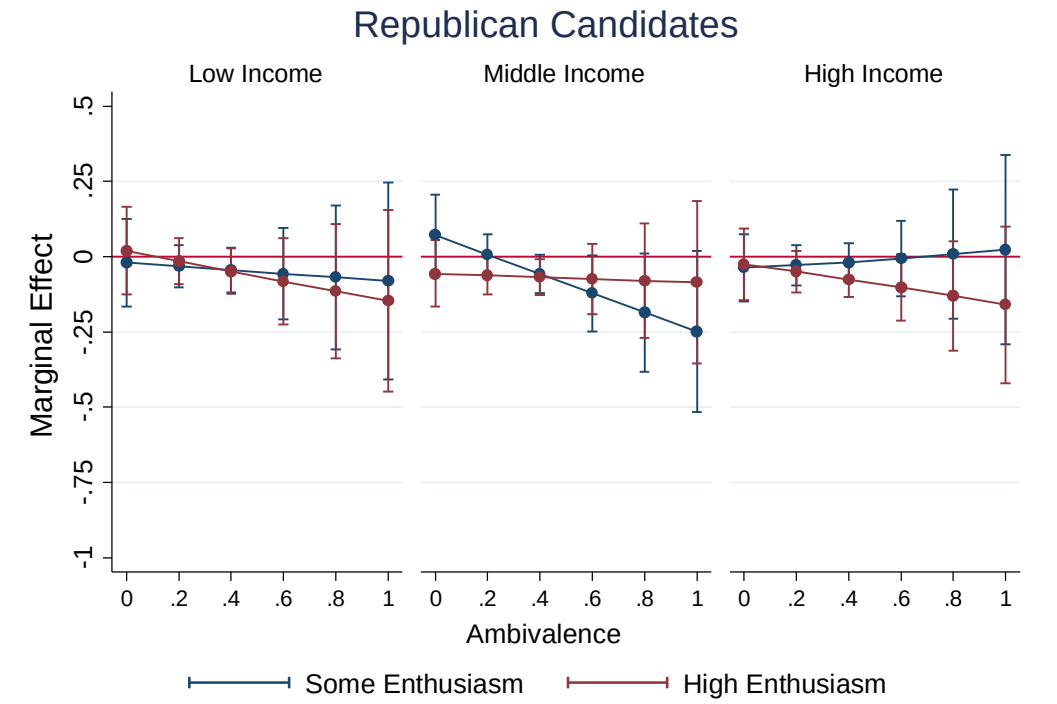


Figure 33A: The Marginal Effects of the Interaction Between Positive Affect and Ambivalence on Abstention by Income (Analyses Restricted to Ambivalence Toward Candidate Issue Positions)





References (See Manuscript for Additional Works Cited)

Berinsky, Adam, Gregory A. Huber, and Gabriel Lenz. (2013). "Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk." *Political Analysis* 20 (3): 351-368.

Brader, Ted, Nicholas A. Valentino, and Elizabeth Suhay. (2008). "What triggers public opposition to immigration? Anxiety, Group Cues, and Immigration Threat." *American Journal of Political Science* 52(4): 959-978.

Cacioppo, John T., Wendi L. Gardner, and Gary G. Bernston. (1997). "Beyond bipolar conceptualizations and measures: The case of attitudes and evaluative space." *Personality and Social Psychology Review* 1(1): 3-25.

Damasio, Antonio. (1995). *Decartes' Error: Emotion, Reason, and the Human Brain.* New York, NY: Harper Collins.

Druckman, James N. and Cindy D. Kam. (2011). "Students as experimental participants: A defense of the "narrow data base.'" In J. N. Druckman, D. P. Green, J. H. Kuklinski, and A. Lupia (Eds.), *Cambridge Handbook of Experimental Political Science*. New York, NY: Cambridge University Press.

Hicks, Raymond and Dustin Tingley. (2011). "Causal mediation analysis." *Stata Journal* (11)4: 605-619.

Levay, Kevin E., Jeremy Freese, and James N. Druckman. (2016). "The demographic and political composition of Mechanical Turk Samples." *SAGE Open*: 1-17.

MacKuen, Michael, Jennifer Wolak, Luke Keele, and George Marcus. (2010). "Civic engagement: Resolute partisanship and reflective deliberation." *American Journal of Political Science* 54(2): 440-458.