# Can Information Decrease Political Polarization? Evidence From the U.S. Taxpayer Receipt

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#### Abstract

Scholars, politicians, and laypeople alike bemoan the high level of political polarization in the United States, but little is known about how to bring the views of liberals and conservatives closer together. Previous research finds that providing people with information regarding a contentious issue is ineffective for reducing polarization because people process such information in a biased manner. Here, we show that information can reduce political polarization below baseline levels and also that its capacity to do so is sensitive to contextual factors that make one's relevant preferences salient. Specifically, in a nationally representative sample (Study I) and a preregistered replication (Study 2), we find that providing a taxpayer receipt—an impartial, objective breakdown of how one's taxes are spent that is published annually by the White House—reduces polarization regarding taxes, but not when participants are also asked to indicate how they would prefer their taxes be spent.

#### Keywords

polarization, political psychology, motivated cognition, taxes, taxpayer receipt

Political polarization in the United States is at its highest levels in decades (Abramowitz, 2010; Barber & McCarty, 2013). Consider, for instance, that the percentage of Americans who express consistently conservative or liberal ideological views has doubled in the past 20 years, and a majority of these partisans say that the policies of the opposing party are "so misguided that they threaten the nation's well-being" (Pew Research Center, 2014, p. 7). Political polarization in terms of policy preferences is also mirrored by social polarization, as partisans increasingly dislike and express prejudice toward their opponents (Iyengar, Sood, & Lelkes, 2012; Iyengar & Westwood, 2015; Mason, 2015). While some level of disagreement may be necessary for a democracy to function properly, high levels of polarization are associated with political deadlock, which may hinder necessary political reforms and slow economic growth (Binder, 1999; Jones, 2001; McCarty, 2007). This raises fundamental questions about what can be done to help close the opinion gap between liberals and conservatives, particularly regarding issues at the heart of the divide.

A growing body of evidence suggests that increases in political polarization have been driven, at least in part, by changes in the way people access information about contentious political issues (Bishop, 2008; Campante & Hojman, 2013). Increasingly, people selectively tune into outlets that confirm their preexisting views (Prior, 2007; Stroud, 2010), which, in turn, incentivizes media outlets to provide more biased information (Gentzkow & Shapiro, 2006, 2008, 2010). Social media in particular may facilitate the creation of "echo chambers" in which individuals are primarily exposed to biased information from likeminded others (Sunstein, 2001, 2009). For instance, recent research reveals that Facebook and Twitter users are more likely to be exposed to and click on stories that adhere to their own ideological views than ones that do not (Bakshy, Messing, & Adamic, 2015; Barberá, Jost, Nagler, Tucker, & Bonneau, 2015). Overall, this suggests that one source of contemporary political polarization is that people consume relatively more biased information than in the past, and therefore mitigating polarization may require providing people with more objective information on divisive issues. However, while providing people with more objective information may be necessary to moderate extreme views, seminal psychological research has found that doing so is often ineffective-if not counterproductivebecause people exhibit motivated cognition (Hastorf & Cantril, 1954; Taber & Lodge, 2006; Vallone, Ross, & Lepper, 1985). That is, people quickly accept information that confirms their preexisting views while intensely scrutinizing information that runs counter to them, which drives polarization (Hart & Nisbet, 2012; Lord, Ross, & Lepper, 1979; Munro & Ditto, 1997;

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Nickerson, 1998). Moreover, research indicates that these effects are particularly robust as they relate to defending political views (Cohen, 2003; Haidt, 2012; Jost & Amodio, 2012; Jost, Glaser, Kruglanski, & Sulloway, 2003; Jost, Hennes, & Lavine, 2013).

# Can Information Reduce Political Polarization?

While research has examined how different forms of information may contribute to extreme political views (e.g., comparing the effects of information that does vs. does not contain partisan cues; Cohen, 2003; Nicholson, 2011), we know of no evidence demonstrating that information can reduce political polarization below baseline levels (i.e., where no information is provided). Nevertheless, implicit in past research is insight into the conditions under which this might occur. First, to reduce polarization, information should have the capacity to correct existing misperceptions, such as by clarifying an issue that people do not fully understand. Second, in order to increase the likelihood that information will moderate views, it should be provided absent contextual factors that make one's political preferences salient. Recent research lends support to this logic. Consider, for instance, that people asked to explain how a contentious policy works subsequently report more moderate views than people asked to explain why they prefer the policy (Fernbach, Rogers, Fox, & Sloman, 2013). According to this research, explaining how a policy works helps people realize that the issue is more complex than they thought, which undermines their "illusion of understanding" and leads them to moderate their views accordingly. In contrast, thinking about why one prefers a policy activates a goal-driven mindset in which people are motivated to defend their preexisting political preferences. Thus, we theorize that providing people with information can similarly moderate polarized viewpoints when it is presented in a way that engages people in an objective analysis of the how the issue "works," but not when it provokes a subjective expression of people's relevant political preferences.

Notably, this theoretical account is also broadly consistent with past research on attitudinal polarization. That is, one reason this literature finds that providing people with information is not effective for reducing polarization may be that the design of many of these past studies inadvertently increased the salience of political preferences. For instance, a standard practice in past studies has been to first ask people about their preferences regarding a contentious political issue before providing information relating to that issue (e.g., Edwards & Smith, 1996; Lord et al., 1979; Munro & Ditto, 1997; Plous, 1991; Taber & Lodge, 2006)—a procedure that makes one's political preferences salient, thereby undermining the potential for information to moderate preexisting views.

# The Taxpayer Receipt

We examine these predictions regarding the capacity for information to reduce polarization through a focus on an issue at the heart of the divide between liberals and conservatives: the legitimacy of taxes. Specifically, we assess whether providing a "taxpayer receipt"—an impartial, objective breakdown of how the government spends one's tax dollars that is published annually on the official White House webpage, whitehouse .gov—can mitigate polarized attitudes regarding the perceived legitimacy of taxes.

Taxation is an ideal setting for evaluating our predictions for two key reasons. First, the particulars of how the government spends one's tax dollars generally are not well understood (Mettler, 2011), and therefore providing people with a taxpayer receipt has the potential to help people realize that the issue is more complex than they thought and subsequently moderate their views. For instance, if conservative media outlets tend to overemphasize the relative costs of government expenditures on health-care, foreign-aid, and job training programs whereas liberal media outlets tend to overemphasize the effectiveness of such programs, this may lead conservatives to harbor overly pessimistic views about how legitimate taxes are and liberals to express overly optimistic views. Accordingly, providing people with impartial, objective information in the form of a taxpayer receipt may help correct misperceptions and reduce polarization.

Second, polarization regarding taxation has direct implications for societal functioning. For instance, polarization over government spending contributed to the U.S. government shutdown in 2013 (just 2 months before we collected the data for Study 1), and disagreements about taxation and government spending were central drivers of several recent political movements, such as the Tea Party and Occupy Wall Street.<sup>1</sup> In fact, the importance of this issue has prompted the governments of both the United States and United Kingdom to generate taxpayer receipts, but the way in which these receipts are distributed varies: They are distributed to all taxpayers in the United Kingdom, but in the United States they are only made available online to taxpayers who are motivated enough to seek this information out. Existing research suggests that providing such information may not affect overall satisfaction with taxes (Barnes, Feller, Haselswerdt, & Porter, 2016; Lamberton, 2013; Lamberton, De Neve, & Norton, 2014), but based on the theoretical account developed above, we expect that it will reduce the degree to which views toward taxes are politically polarized as compared to baseline levels.

# **Eliciting Taxpayer Preferences**

While we expect that providing a taxpayer receipt can reduce the degree to which views toward taxes are politically polarized as compared to baseline levels, we also expect that this effect will be sensitive to contextual factors that make one's political preferences salient. One such contextual factor that is important for both practical and theoretical reasons is whether individuals are given a choice of which government department they would want to fund. Eliciting taxpayer preferences in this manner mirrors real-world policies that have been proposed (e.g., the 2007 Opt Out of Iraq War Act, which would have allowed taxpayers to fund social programs instead of the Iraq War) and that have been implemented (e.g., the Presidential Election Campaign Box, which if checked, directs US\$3 of one's tax dollars to the Presidential Election Campaign Fund without increasing the amount one owes). Moreover, the possibility that eliciting preferences may hamstring efforts to depolarize would suggest an important boundary condition to the body of evidence supporting the merits of doing so both in the domain of taxation (e.g., Lamberton, 2013; Lamberton et al., 2014) and more broadly (e.g., Tyler, 1987). Accordingly, we examine the possibility that asking participants to indicate which government department or program they would want their personal tax dollars to help fund will change the lens through which they view the taxpayer receipt. By eliciting taxpayer preferences, we expect that participants will no longer approach the receipt objectively as an opportunity to better understand how taxes work, but instead, they will approach it with a motivational lens, focusing on what they-or their "side"-wants. Thus, we expect that eliciting taxpayer preferences will undermine the potential for information to reduce polarization.

# Study I

In Study 1, we evaluate whether a taxpayer receipt can reduce politically polarized attitudes regarding the legitimacy of taxes below baseline levels. We also examine our prediction that combining the same receipt with a policy that elicits taxpayer preferences will undermine this depolarization effect. Following the recommendations of Simmons, Nelson, and Simonsohn (2012), we report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study.

# Method

#### Participants

We used Survey Sampling International to recruit a nationally representative sample of  $662^2$  participants (334 women;  $M_{age} = 45.57$ , SD = 16.05) in December 2013. In terms of political views, 22% of participants were conservative, 60% were moderate, and 18% were liberal.<sup>3</sup> All participants were U. S. citizens, and no participants were excluded from analysis.

# Materials and Procedure

Participants first responded to a series of items regarding their experiences with work and compensation to increase experimental realism and the personal relevance of the information to follow. Specifically, we asked participants to write about a time they had worked hard for compensation, how it felt to be compensated, and how they spent the money they had earned. Participants were then asked to estimate their annual income. Based on their estimate, we presented the approximate amount of income tax dollars they would owe based on the White House Taxpayer Receipt (2013) assuming they filed as single with no deductions. *Manipulation.* We randomly assigned participants to one of the four conditions: (1) a taxpayer receipt condition that provided a breakdown of how the government spends their taxes, (2) a preference condition in which taxpayers could choose how some of their taxes are spent, (3) a combined taxpayer receipt-preference condition, or (4) a control condition that advanced directly to the dependent measures.

Participants in the taxpayer receipt and combined conditions viewed a numerical breakdown detailing the amount and proportion of their income tax dollars that would go toward each government department (Figure 1).

Participants in the combined condition then advanced to another screen that included the receipt as well as text informing them of "proposed changes to the tax process" that would allow taxpayers to "influence how tax dollars are used." Participants were then asked to select one preferred government department to receive additional funding from a drop-down menu that included the same categories in the receipt. This selection would divert relatively more taxes to their preferred department but would not increase the total amount they owed. Participants in the preference only condition viewed this text and selected their preferred government department but did not view the receipt. We then asked all participants to consider the experience of paying taxes in the coming year.

#### Measures

Perceived legitimacy of taxes. Participants indicated their agreement with 7 items assessing perceived legitimacy of taxes (e.g., "I will trust the government to spend my tax dollars wisely," "I will feel that taxes are a form of theft [R]," and "I will feel that taxes serve a necessary and important function in our society") on a 7-point scale ( $1 = completely \ disagree, 7 = completely \ agree$ ).<sup>4</sup> We averaged responses to these items to form a composite ( $\alpha = .88$ ; see Supplemental Material for the full scale).

**Political views.** Participants reported their political views  $(1 = very \ conservative, 7 = very \ liberal)$  along with basic demographic information.

# Results

Overall, participants perceived taxes to be moderately legitimate (M = 4.22, SD = 1.26), and these perceptions did not vary by condition, F(3, 658) = .80, p > .250. To assess whether our manipulation affected political polarization, we first regressed perceived legitimacy of taxes on political views and condition dummy variables with the control condition as the baseline (Step 1) and then included interactions between political views and these dummy variables (Step 2). At Step 1, we observe a significant effect of political views, b = .22, SE = .03, 95%confidence interval (CI) = [0.17, 0.28], t(657) = 7.64, p <.001, indicating that more liberal views were associated with higher perceived legitimacy of taxes, but no significant effect of the taxpayer receipt condition, b = .18, SE = .13, 95% CI

me Tax	% of Total Income Tax Payment	\$3,304.00
National Defense	24.64%	\$814.11
Health care	22.45%	\$741.75
Job and Family Security	17.26%	\$570.27
Education and Job Training	3.30%	\$109.03
Veterans Benefits	4.53%	\$149.67
Natural Resources, Energy, and Environment	2.05%	\$67.73
International Affairs	1.72%	\$56.83
Science, Space, and Technology Programs	1.06%	\$35.02
Immigration, Law Enforcement, and Administration of Justice	2.05%	\$67.73
Agriculture	0.65%	\$21.48
Community, Area, and Regional Development	0.48%	\$15.86
Response to Natural Disasters	0.43%	\$14.21
Additional Government Programs	11.38%	\$376.00
Net Interest	8.01%	\$264.65
AL INCOME TAXES YOU PAID		\$3,304.0

Figure 1. Sample taxpayer receipt from whitehouse.gov based on an annual salary of US\$35,000.

[-0.08, 0.43], t(657) = 1.34, p = .180, the combined condition, b = -.03, SE = .13, 95% CI [-0.29, 0.23], t(657) = .22, p >.250, or the preference condition, b = .11, SE = .13, 95% CI [-0.15, 0.37], t(657) = .81, p > .250. At Step 2, we again observe a significant effect of political views, b = .26, SE =.06, 95% CI [0.14, 0.38], t(654) = 4.38, p < .001. The simple effect of the preference condition was not significant, b =.06, SE = .36, 95% CI [-0.65, 0.77], t(654) = .17, p > .250, nor was the interaction of the preference condition with political views, b = .01, SE = .08, 95% CI [-0.15, 0.18], t(654) =.17, p > .250. Similarly, the simple effect of the combined condition was not significant, b = -.12, SE = .36, 95% CI [-0.83, 0.59], t(654) = .34, p > .250, nor was the interaction of the combined condition with political views, b = .02, SE = .08, 95% CI [-0.14, 0.19], t(654) = .32, p > .250.

Importantly, however, we observed a significant simple effect of the taxpayer receipt condition, b = .81, SE = .35, 95% CI [0.13, 1.50], t(654) = 2.34, p = .019, and the predicted interaction between political views and the taxpayer receipt condition, b = -.16, SE = .08, 95% CI [-0.32, -0.01], t(654) = 2.03, p = .042, indicating that the taxpayer receipt significantly decreased polarization compared to baseline levels. In fact, as demonstrated by the relatively flat line in Figure 2a, political views were only weakly predictive of perceived legitimacy of taxes in the taxpayer receipt condition, b = .09, SE = .06, 95% CI [-0.01, 0.21], t(167) = 1.73, p = .086.

# Discussion

The results of Study 1 demonstrate that presenting a taxpayer receipt—an impartial, objective breakdown of how income taxes are allocated—reduces politically polarized views

regarding the legitimacy of taxes as compared to baseline levels. By contrast, neither the condition that elicited taxpayer preferences nor the condition that combined the taxpayer receipt with this preference elicitation reduced political polarization. Together, therefore, this pattern of results supports our predictions and our theorized account of the conditions under which information will decrease polarization.

# Study 2

The primary goals of Study 2 were to assess the reliability and stability of our findings in Study 1. To do so, we conducted a more highly powered replication of Study 1, 2 years and 6 months after collecting the data for Study 1. We preregistered the study on aspredicted.org, specifying our plans for data collection, sample size, dependent variables, hypotheses, and analysis.<sup>5</sup>

#### Participants

We recruited 1,250 participants (603 women;  $M_{age} = 36.55$ , SD = 12.16) from Amazon's Mechanical Turk (mturk.com) for payment. Overall, 20% of participants were conservative, 46% were moderate, and 34% were liberal.

#### Materials and Procedure

The materials and procedure of Study 2 were identical to that of Study 1 except for the exclusion of the preference condition. Specifically, we randomly assigned participants to one of the three conditions employed in Study 1: (1) the taxpayer receipt condition, (2) the combined taxpayer receipt-preference



Figure 2. The relationship between political views (treated as a continuous variable [a] or a categorical variable [b]) and perceived legitimacy of taxes by condition in Study 1.

condition, or (3) the control condition. After the manipulation, participants then responded to the same perceived legitimacy of taxes measure ( $\alpha = .90$ ), reported their political views, and completed demographic items.

# Results

Overall, participants again perceived taxes to be moderately legitimate (M = 4.33, SD = 1.31). In contrast to Study 1, however, these perceptions did vary by condition, F(2, 1247) = 6.32, p = .002. Post hoc analyses using a Bonferroni correction revealed that participants perceived taxes to be more legitimate in the combined condition (M = 4.51, SD = 1.23) than in the

taxpayer receipt condition (M = 4.24, SD = 1.37) and the control conditions (M = 4.23, SD = 1.30).

As in Study 1, to assess the central question of whether our manipulation affected political polarization, we first regressed perceived legitimacy of taxes on political views and condition dummy variables with the control condition as the baseline (Step 1) and then included interactions between political views and these dummy variables (Step 2). At Step 1, we observe a significant effect of political views, b = .18, SE = .02, 95% CI [0.14, 0.22], t(1,246) = 9.18, p < .001, and of the combined condition, b = .26, SE = .09, 95% CI [.09, .43], t(1,246) = 2.94, p = .003, but no significant effect of the taxpayer receipt condition, b = -.01, SE = .09, 95% CI [-0.18, 0.16], t(1,246)



Figure 3. The relationship between political views (treated as a continuous variable [a] or a categorical variable [b]) and perceived legitimacy of taxes by condition in Study 2.

= 0.10, p > .250. At Step 2, we again observe a significant effect of political views, b = .23, SE = .03, 95% CI [0.16, 0.29], t(1,244) = 6.79, p < .001. We also observe a significant simple effect of the combined condition, b = .45, SE = .23, 95% CI [0.00, 0.90], t(1,244) = 1.98, p = .048, and a marginally significant simple effect of the taxpayer receipt condition, b = .40, SE = .23, 95% CI [-0.05, 0.84], t(1,244) = 1.75, p = .080. Most notably, however, we replicate the predicted interaction between political views and the taxpayer receipt condition, b = -.09, SE = .05, 95% CI [-0.19, 0.00], t(1,244) = 2.03, p = .052, indicating that the taxpayer receipt decreased polarization compared to baseline levels (see Figure 3). The interaction between political views and the combined taxpayer

receipt-preference condition was not significant, b = -.05, SE = .05, 95% CI [-0.14, 0.05], t(1,244) = .95, p > .250.

Aggregated analysis. To estimate the aggregate effects of the taxpayer receipt condition and the combined taxpayer receiptpreference condition on political polarization, we combined the samples from our two studies.<sup>6</sup> As in Studies 1 and 2, we first regressed perceived legitimacy of taxes on political views and condition dummy variables with the control condition as the baseline (Step 1) and then included interactions between political views and these dummy variables (Step 2). At Step 1, we observe a significant main effect of political views, b = .19, SE = .17, 95% CI [0.16, 0.22], t(1,752) = 11.20, p < .001, and



Figure 4. The relationship between political views (treated as a continuous variable [a] or a categorical variable [b]) and perceived legitimacy of taxes by condition utilizing aggregated data across studies.

of the combined condition, b = .17, SE = .07, 95% CI [0.03, 0.32], t(1,752) = 2.38, p = .017, but not of the taxpayer receipt condition, b = .04, SE = .07, 95% CI [-0.10, 0.18], t(1,752) = 0.55, p > .250. In Step 2, we again observe a significant effect of political views, b = .19, SE = .17, 95% CI [0.16, 0.22], t(1,752) = 11.20, p < .001. Of the primary interest, we observed both a significant simple effect of the taxpayer receipt condition, b = .53, SE = .19, 95% CI [0.16, 0.90], t(1,750) = 2.83, p = .005, and the predicted interaction between political views and the taxpayer receipt condition, b = -.12, SE = .04, 95% CI [-0.20, -0.04], t(1,750) = 2.83, p = .005 (see Figure 4). The simple effect of the combined condition was not significant, b = .25, SE = .19, 95% CI [-0.13, 0.62], t(1,750) = 1.28,

p = .20, nor was the interaction between political views and the combined taxpayer receipt-preference condition, b = -.02, SE = .04, 95% CI [-0.10, 0.07], t(1,750) = .41, p > .25. This evidence, drawing on the full set of observations aggregated across two studies, provides evidence for a modest, but reliable, depolarizing effect of the taxpayer receipt on views regarding the legitimacy of taxes.

## Discussion

Study 2 provides additional evidence from a more highly powered, preregistered replication that the depolarizing effect of the taxpayer receipt is reliable and stable both across samples (i.e., nationally representative vs. Amazon Mechanical Turk) and time of data collection (i.e., 2013 vs. 2016). One distinction in the results of Study 2 is that perceptions of the legitimacy of taxes were higher in the combined taxpayer receipt-preference condition than in both the control and taxpayer receipt conditions, whereas in Study 1 we observed no such difference. This result in Study 2 is broadly consistent with prior work that has found that eliciting taxpayer preferences increases overall satisfaction with taxes (Lamberton, 2013), tax compliance (Lamberton et al., 2014), and donations to government (Li, Eckel, Grossman, & Brown, 2011). Thus, Study 2 provides some evidence that eliciting taxpayer preferences can improve average perceptions of the legitimacy of taxes, but as in Study 1, it also provides evidence that doing so interferes with the depolarizing effect of the taxpayer receipt alone.

# **General Discussion**

While the literature is rife with instances in which information does not reduce (and even increases) polarization, we demonstrate that information can reduce polarization when it is presented in a way that minimizes the salience of one's political preferences. These findings are theoretically and practically important because they provide key insights into the conditions under which information can reduce polarization. For instance, one important implication of our research is that a standard policy of providing *all* taxpayers with a receipt (as is currently done in the United Kingdom, but not in the United States, where it is made available online for those motivated enough to seek it out) may represent one simple, cost-effective step to moderating the polarized U.S. political climate, at least with respect to taxation.

Of course, our research has limitations that suggest important avenues for future research. First, we only simulated short-term effects of the taxpayer receipt, and it is possible that the effect of the taxpayer receipt (or a policy involving increased choice in the tax process) may have long-term effects different than those we observed. Second, we only measured the impact of the taxpayer receipt on perceptions of the legitimacy of taxation, and it remains an open question whether our results would translate to changes in support for specific tax policies. Third, another question is whether the observed depolarizing effect of the receipt hinges on avoiding politically charged language to describe government spending (e.g., avoiding terms like "welfare"). Fourth, it remains unclear to what extent our framework for reducing polarization will generalize to other forms of information and other sources of polarization. For instance, it is possible that information will have limited potential for reducing polarization when it largely affirms one group's views as correct and the other's as misplaced (e.g., scientific evidence for climate change) or when the phrasing of information itself clearly implies support for one stance over another (e.g., "prochoice" vs. "prolife").

Nevertheless, our research suggests that while people may generally approach divisive political issues "more like a lawyer defending a client than a judge or scientist seeking truth" (Haidt, 2001, p. 820), people can reason like judges or scientists when they do not feel like there is a client to defend. Thus, while a forceful information campaign may galvanize support among people who already share the perspective put forth, it is unlikely to influence people who do not already share that view. To close these opinion gaps, it may be better to simply provide people with the facts and the space to consider them on their own.

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#### Notes

- While there is ongoing debate in the political science literature as to whether conflict in government is best explained by increasing ideological polarization or bargaining and fighting before an audience (e.g., Lee, 2009), conflict in government is likely indirectly related to the level of polarization in the electorate insofar as highly polarized views among constituents increase politicians' incentives to clash more bitterly.
- 2. We asked Survey Sampling International to recruit at least 650 participants in order to ensure that we would have a minimum of 150 participants within each of our four conditions. We estimated that this sample size would ensure the inclusion of at least 40 conservatives, moderates, and liberals within each condition.
- 3. Here and throughout the article, "conservatives" denotes people who reported their political views were 1 = very conservative or 2 = conservative, moderates denotes participants who reported their political views were 3 = slightly conservative, 4 = moderate, or 5 = slightly liberal, and liberals denotes participants who reported their political views were 6 = liberal or 7 = very liberal.
- 4. Participants also indicated their agreement with 7 other items (14 in total, see Supplemental Material). Our focus here is on the 7 items most relevant to perceptions of the legitimacy of taxes. The predicted interaction is significant if we submit the 14-item composite to the analysis to be presented, b = -.18, SE = .07, 95% CI [-0.32, -0.03], t(654) = 2.49, p = .01.
- 5. The preregistration document is #802 on asprecited.org and can be viewed at https://AsPredicted.org/wsxx7.pdf. All methods and procedures follow the preregistered plan except that participants were

not assigned to the preference condition. This was due to a programing error that was discovered after data collection had completed. Fortunately, the three conditions most central to assessing our predictions were not affected by this error.

 We did not include participants in the preference only condition in the aggregated analysis because this condition was not present in Study 2.

#### Supplemental Material

The online data supplements are available at http://journals.sagepub. com/doi/suppl/10.1177/1948550616687126.

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