

Do I Support that It's Good or Oppose that It's Bad?
The Effects of Attitude Framing on Sharing Behavior

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Abstract

The rise of social media has led to unprecedented levels of sharing, on topics ranging from what products people like to their views on polarized issues and policies. What factors affect whether individuals choose to share their attitudes? In this paper, we identify a novel determinant of whether individuals share—*attitude framing*, defined as whether individuals think of their own attitude in terms of what they support or what they oppose. Attitude framing is distinct from attitude valence, as the same attitude can be framed in terms of support (e.g., I support that this policy is bad) or opposition (e.g., I oppose that this policy is good). Five experiments and one field study provide evidence for an attitude-framing effect, whereby individuals are more likely to share, or express, attitudes framed in terms of positions they support rather than positions they oppose. This effect occurs via two pathways. In the first, support-framed attitudes are viewed as more value expressive, and thus lead to greater sharing. In the second, support-framed attitudes are believed to foster more positive impressions from message recipients, which also leads to greater sharing. This attitude-framing effect is attenuated when individuals do not want to be liked by the target of their sharing.

Do I Support that It's Good or Oppose that It's Bad?

The Effects of Attitude Framing on Sharing Behavior

The rise of social media has led to unprecedented levels of sharing (Chen and Berger 2016; Protalinsky 2011). According to recent estimates, individuals share approximately 500 million tweets (Twitter 2019), 2 million posts on Reddit (Reddit 2015), and almost 5 billion pieces of content on Facebook (Facebook 2013) every single day. Indeed, some estimates suggest that 94% of social media users share content online, with 42% of them sharing content daily (Herhold 2019). This sharing has meaningful consequences. Consider, as one example, Dick's Sporting Goods' recent policy change to limit firearm sales. The company's tweet about the policy received over 10,000 comments, with Twitter users sharing their views and urging others to boycott or "buycott" the brand in response. Another 50,000 users retweeted the post, sharing it with their own followers and adding responses (Twitter 2018). When the brand's sales declined by over \$10 million the following year, the CEO described the public's reaction to the ban—in essence, all that sharing—as a "meaningful driver" of the decline (New York Times 2019).

Sharing has been a topic of growing interest in both social and consumer psychology in the past decade. Social psychologists' interest revolves largely around issues related to attitudinal advocacy—that is, identifying the factors that lead people to share, or express, their attitudes and opinions (e.g., Akhtar and Wheeler 2016; Cheatham and Tormala 2015, 2017; Krosnick, et al. 1993; Matthes, Morrison, and Schemer 2010; Morrison and Miller 2008). Consumer researchers have focused more on word-of-mouth, seeking to understand the attributes of consumers, products, and brands that lead consumers to share their experiences or pass information to others

(e.g., Cheema and Kaikati 2010; Chen and Berger 2013; Feick and Price 1987; Lovett, Peres, and Shachar 2013).

The current research builds on this tradition by introducing a previously unexplored attribute of attitudes that affects people's likelihood of sharing. In particular, we explore the role of *attitude framing*, defined as whether individuals think of their own attitude in terms of what they support or what they oppose. Consider the Dick's Sporting Goods example from earlier. A consumer could be favorably inclined toward the policy to limit gun sales, and could think of her attitude in terms of what she supports (e.g., "I support limits on guns.") or what she opposes (e.g., "I oppose guns."). Another consumer could be negatively inclined toward the policy, and think of *her* attitude in terms of what she supports (e.g., "I support gun rights.") or what she opposes (e.g., "I oppose gun limits."). Thus, attitude framing is conceptually distinct from the attitude (or attitude valence) itself.

We ask whether this variation in attitude framing, controlling for one's underlying attitude, could affect people's likelihood of sharing, or expressing, their attitudes with others. And if so, how? To address these questions, we conducted a field study and a series of experiments. The results converge to show that individuals are more likely to share their attitudes when those attitudes are framed in terms of positions they support rather than positions they oppose. This attitude-framing effect is driven by two interaction goals: value expression and impression management. In the *value-expression pathway*, individuals feel that sharing their support for ideas and positions is more expressive of their core values (e.g., more representative of who they are) than is sharing their opposition to ideas and positions. This feeling of value expressiveness fosters greater sharing of support-framed attitudes than oppose-framed attitudes. In the *impression-management pathway*, individuals believe that expressions of support lead

others (i.e., message recipients) to form more positive impressions of them than do expressions of opposition. These impression expectations lead to greater sharing of support-framed attitudes than oppose-framed attitudes. The current studies demonstrate this attitude-framing effect across a variety of stimuli including policies (Studies 1-2 and 6), brands (Study 2), and pertinent social issues (Studies 3-5), and illuminate the roles of impression management and value expressiveness (Studies 4-6) in driving the effect, using both mediation and moderation approaches.

THEORETICAL OVERVIEW

Prior research on sharing suggests that information content, individual differences, and attitudinal attributes can all influence whether individuals share. First, the actual content being shared plays an important role. For example, products that are interesting (Dye 2000; Hughs 2005; Sernovitz 2006) or somewhat controversial (Chen and Berger 2013) are more talked about than others. Moreover, brands that are highly visible or relevant to a greater number of consumers are more likely to be discussed (Berger and Schwartz 2011; Lovett, Peres, and Shachar 2013). Second, research in social and consumer psychology suggests that individual differences predict whether individuals choose to share. For example, consumers experiencing financial scarcity (Paley, Tully, and Sharma 2019) and those with a high need for uniqueness (Cheema and Kaikati 2010) are less likely to share, whereas consumers with a lot of knowledge about a brand (Lovett, Peres, and Shachar 2013) or who are market mavens (Feick and Price 1987) are *more* likely to share. Finally, while the role of attitudinal attributes has been largely neglected in consumer psychology, research in social psychology suggests that in addition to the attitude itself, strength-related attributes of attitudes can influence whether individuals share, talk

about, or advocate on behalf of their views. Specifically, attitudes that are held with greater certainty, deemed more important, or considered more self-defining, are more likely to be shared than their low certainty, low importance, and non-defining counterparts (Akhtar and Wheeler 2016; Cheatham and Tormala 2015, 2017; Krosnick et al. 1993; Visser, Krosnick, and Simmons 2003; Zunick, Teeny, and Fazio 2017).

Attitude Framing and Sharing

We postulate that regardless of the attitude an individual holds, the *framing* of this attitude will affect whether he or she chooses to share. By attitude framing, we mean whether the individual thinks of an attitude in terms of what he or she supports or opposes. A support-framed attitude reflects what an individual supports or believes; it represents a viewpoint that the individual agrees with or endorses. An oppose-framed attitude reflects what an individual opposes or does not believe; it represents a viewpoint that the individual disagrees with or rejects. We submit that even after controlling for people's attitudes—that is, whether their core underlying position on a topic is favorable or unfavorable—the framing of those attitudes in support or oppose terms will shape people's sharing decisions. Our central hypothesis is that people will be more likely to share their views when they think of those views in terms of what they support rather than what they oppose.

The idea that framing can affect behaviors has a rich foundation in judgment and decision-making research (Kahneman and Tversky 1979; see McElroy and Seta 2003 for a review). However, very little research has explored *attitude* framing and its effect on subsequent behavior. In one notable exception, Bizer, Larsen, and Petty (2011) identified an attitude-valence-framing effect, whereby framing a political attitude as being in favor of a liked candidate

led to less resistance to persuasion than framing the attitude as being against their opponent (i.e., a disliked candidate). This effect was mediated by attitude certainty: Opposing a disliked candidate boosted certainty relative to supporting a liked candidate, which increased resistance to persuasion. However, it is important to highlight three key caveats to the Bizer et al. findings. First, they focused on resistance to persuasion, not sharing. Thus, they provided no insight into the current questions. Second, in the Bizer et al. studies, attitude framing was perfectly correlated with attitude valence—oppositional attitudes were always negative and supportive attitudes were always positive. Thus, the results were ambiguous with respect to whether they elucidated an effect of attitude framing or attitude valence. Third, even if the researchers had isolated framing *per se* and been interested in sharing, they would have made the opposite prediction to the one advanced here. Indeed, oppose framing was argued to boost attitude certainty in the Bizer et al. work, and certainty is known to boost sharing (e.g., Cheatham and Tormala 2015, 2017). Thus, if anything, the Bizer et al. findings suggest that oppose framing should trigger more sharing than support framing. We propose the opposite.

Valence is the most relevant attribute of attitudes that has been explored as a predictor of *sharing* in past research. In general, positivity has been argued to trigger greater sharing than negativity. Consumers, for example, write more positive reviews than negative reviews (Chevalier and Mayzlin 2006; East, Hammond, and Wright 2007) and share more positive news than negative news (Berger and Milkman 2012; Tesser and Rosen 1975). Both of these findings have been attributed to impression-management concerns: Consumers share more positive than negative content because it makes them look better (Berger 2014). This proposition is consistent with other research suggesting that posting negative content can lead to people being liked less (Forest and Wood 2012). However, it is worth noting that positive valence might not *always*

promote sharing. One study found that consumers sometimes express more negative than positive ratings, due to concerns about public evaluation (Schlosser 2005).

Recent research has sought to explain this discrepancy from an impression-management perspective. Consistent with a positivity bias, consumers are indeed more likely to generate positive word-of-mouth about their own experiences, because it makes them look good (De Angelis et al. 2012; Kamins, Folkes, and Perner 1997; Wojnicki and Godes 2011). However, when communicating about *others'* experiences, consumers share more negative word-of-mouth, which makes them look better by comparison (De Angelis et al. 2012). Thus, the dominant result in the literature seems to be that individuals share positive or negative content, depending on which they believe will shine more favorably upon themselves. However, because this literature focuses on valence, it is an open question whether and how attitude *framing* affects impression-management goals and sharing outcomes.

It is worth noting that attitude valence and attitude framing are related constructs that sometimes move together. For example, in the case of elections with two candidates (e.g., in Bizer, Larsen, and Petty 2011), supporting a candidate and having a positively valenced attitude necessarily co-occur, as do opposing a candidate and having a negatively valenced attitude. Similarly, for industries with two major players (e.g., Macs and PCs), supporting brand A and having a positively valenced attitude necessarily co-occur, as do opposing brand B and having a negatively valenced attitude. Importantly, though, valence and framing are conceptually distinct and fully separable. In the aforementioned Dick's Sporting Goods example, a consumer who feels negatively towards the gun policy could frame his attitude in terms of support (e.g., "I support gun rights.") or opposition (e.g., "I oppose gun limits."). Likewise, a consumer who feels positively towards the policy could frame his attitude in terms of support (e.g., "I support gun

limits.”) or opposition (e.g., “I oppose guns.”). This example reveals two key aspects of attitude framing: First, although past research has treated valence and framing interchangeably, these two constructs are fully separable in many contexts. Second, unlike attitude valence, which is not necessarily malleable, attitude framing is highly flexible. Consumers can be steered toward one frame or another by a marketer or company, for example.

The Role of Interaction Goals

Why would attitude framing affect an individual’s decision to share? Given the inherently social nature of sharing, we posit that individuals’ sharing decisions are influenced by the extent to which sharing will satisfy their interaction goals. In other words, individuals will be driven to share in circumstances in which sharing helps them achieve desired socio-emotional outcomes (Rusbult and Van Lange 2003). In this paper, we focus on two desired outcomes: value expression (i.e., desiring to present and view oneself as congruent with one’s values and ideal self-image) and impression management (i.e., desiring for others to have a favorable impression of oneself). Researchers have proposed that these two goals encompass a large portion of human interactions, and drive a wide range of social behavior including giving and receiving help, conformity, reactance, responses to evaluations, aggressive behavior, self-serving and counter-defensive attributional statements, task performance, ingratiation, and, most relevant to the current work, attitude expression and change (see Baumeister 1982). We unpack each goal below and outline its hypothesized role in sharing.

Value-Expression Goal

First, individuals are motivated to portray themselves as aligned with their ideal selves in order to affirm to both themselves and others that they are who they want to be (Baumeister 1982). Given that values are a fundamental aspect of the self-concept (Hitlin 2003), it follows that individuals should be motivated to express their core values when interacting with others. This proposition aligns with the attitude function literature, which suggests that individuals derive satisfaction from holding and expressing attitudes that are appropriate to their personal values and self-concepts (Katz 1960). Relatedly, research on word-of-mouth suggests that one motive for sharing is to express who we are as individuals (Berger 2014; Wojnicki and Godes 2008). Thus, whenever an attitude and its expression are viewed as more value expressive, individuals should be more likely to share.

In the current work, we hypothesize that support-framed attitudes are likely viewed as more value expressive than are oppose-framed attitudes. We base this on work on self-definition, which suggests that support framing, which frames attitudes in terms of what one believes, may lead to greater connections between an attitude and the self than oppose framing, which frames attitudes in terms of what one does *not* believe. This research suggests that individuals define themselves more by who they are than by who they are not. For example, research by Zhong, Phillips, Leonardelli, and Galinski (2008) revealed that when individuals were asked to generate a list of their identities, 70% of the identities were affirmational (e.g., *I am a liberal*) whereas only 30% of the identities were negational (e.g., *I am not a conservative*). The preference for identities that are framed in terms of who an individual is, rather than is not, is also suggested by optimal distinctiveness theory (Brewer 1991). According to this theory, individuals strive to meet two fundamental and competing human needs: the need to be distinct or unique from others and

the need to feel included. Representing the self in terms of who one *is* meets both of these needs. The need to be distinct is satisfied by the existence of an outgroup and the need to feel included is satisfied by identifying with an ingroup. Representing the self in terms of who one *is not* meets only one of these needs. The need to be distinct is satisfied by the implied outgroup, but the need to belong is not necessarily met. Indeed, *not* being a member of a particular outgroup does not always imply inclusion in the way that being a member of an ingroup does. This effect may play out in the same way for support- versus oppose-framed attitudes. Perhaps people generally view their support as meeting important needs and as representative of their identity, but view their opposition as less tied to their identity and values.

Previous research on self-defining attitudes also supports our reasoning. Zunick, Teeny, and Fazio (2017) demonstrated that positive attitudes are considered more self-defining than negative attitudes. For example, in one study participants were asked to report their attitudes toward environmentalism. They found that individuals who had more favorable (rather than unfavorable) attitudes indicated that their attitudes were more self-defining, which in turn led to greater advocacy for their positions. Given that value expressiveness and self-definition are related (although discrete) constructs (see Zunick et al. 2017), this finding provides preliminary evidence for our attitude-framing hypothesis via the value-expressiveness pathway. Importantly, though, the Zunick et al. research focused on attitude valence rather than attitude framing. We submit that support framing can promote the feeling of value expressiveness, even when the underlying attitude is negative in valence.

Impression-Management Goal

An extensive literature suggests that the desire to be liked is a fundamental human motivation (e.g., Baumeister 1982; Ames, Fiske, and Todorov 2001; Jones and Pittman 1982). People engage in altruistic behavior, conformity, and ingratiation, all in order to give others a more positive impression of them (Baumeister 1982; Jones and Pittman 1982). Based on this research, we argue that individuals should be more likely to share when they believe that it will lead others (i.e., those with whom they are interacting) to have a more positive impression of them. This reasoning is also consistent with the attitude-function literature, which suggests that individuals use attitude expression to project social identities that will lead to approval from others (Chuang and Darke 2006; Hennig-Thurau, et al. 2004; Hughes 2005; Shavitt 1989; Sundaram, Mitra, and Webster 1998; Wojnicki and Godes 2011). The desire to be perceived positively by others has been used to explain the positivity bias in word-of-mouth, and to explain the circumstances under which we should expect this bias to be moderated (Berger 2014; De Angelis et al. 2012; Lovett, Peres and Shachar 2013). These findings are consistent with a large body of research suggesting that individuals care deeply about how others perceive them (Jones and Pittman 1982, Baumeister and Leary 1995) and generally want to be liked (Baumeister 1995). Thus, given the importance of impression-management goals, individuals should be more likely to share when they believe that sharing will lead others to view them more favorably.

We hypothesize that support-framed attitudes serve this impression-management goal to a greater extent than oppose-framed attitudes. One potential reason is that support-framed positions are a form of agreement, whereas oppose-framed positions are a form of disagreement. Past research reveals that individuals who are agreeable are more liked by others and tend to have more friends (Berry et al. 2000; Cuperman and Ickes 2009; Harris and Vazire 2016; Festa

et al. 2012; Wortman and Wood 2011). Agreeableness is characterized by being warm, caring, and altruistic (Costa and McCrae 1995), as well as by using more constructive tactics during conflict (Graziano, Jensen-Campbell, and Hair 1996). If people generalize from this understanding of agreeableness and believe that individuals who agree with (i.e., support) positions are perceived as more agreeable, this could contribute to a lay intuition that expressing support will elicit greater liking, thereby leading to greater sharing of support-framed views.

OVERVIEW OF STUDIES

In sum, we hypothesize two interaction goals that mediate the relationship between attitude framing and sharing: value expressiveness and impression management. In the first pathway, we contend that individuals are more likely to share support-framed attitudes due to value expressiveness. That is, people believe that the positions they support are more representative and reflective of their values than the positions they oppose, which leads people to share relatively more about the positions they support. In the second pathway, we posit that individuals are more likely to share support-framed rather than oppose-framed attitudes because they believe doing so will cause others to form more positive impressions of them.

Six studies test our theoretical framework. Study 1 provides initial evidence of the relationship between attitude framing and sharing in the field using Twitter data. Study 2 explores the relationship across seven different issues—presented in terms of attitude or position statements—varying on dimensions including topic and valence. Study 3 offers causal evidence for the attitude-framing effect in a laboratory experiment. To elucidate the mechanisms underlying this effect, Study 4 measures both impression management and value expressiveness for support- versus oppose-framed attitudes. Study 5 provides additional evidence for the

proposed mechanism and further establishes the robustness of the effect. Finally, in Study 6 we triangulate in on psychological process and moderate the effect by manipulating desired impression. This study reveals that the effect of support framing on sharing behavior is attenuated when people consider sharing with disliked others.

Study 1 – Twitter

To offer an initial assessment of the relationship between attitude framing and sharing, we conducted a field study using the social media website, Twitter. In particular, we examined Twitter users' posts to investigate whether individuals expressed more support-framed attitudes than oppose-framed attitudes in this natural environment.

Method

All data were collected using R, a freely available and open-source programming language. We gained access to the Twitter Application Programming Interface (API) using the rtweet package for R (Kearney 2018). Tweets were selected based on two criteria: topic and support/oppose framing. First, in order to limit tweets to topics of interest for the current research, we limited tweets to those including the words “policy,” “law,” or “legislation.” Using these words allowed us to avoid instances of “support” that are not germane to the present topic (for example, “please support my gofundme”). In addition, using these general words (rather than more specific keywords, such as “gun,” “immigration,” or a particular company policy) allowed us to make inferences about support and opposition broadly, rather than limiting our conclusion to a particular issue or group.

The second criterion used was the presence of words reflecting support or oppose framing. Tweets containing the phrases “I support,” “I am in favor of,” or “I agree” were

categorized as support tweets, whereas tweets containing the phrases “I oppose,” “I am against,” or “I disagree” were categorized as oppose tweets. Full phrases were used in order to minimize the possibility of including tweets that were ambiguous in their support versus opposition. For example, a tweet urging others, “Do not support this policy” is ambiguous in whether it should be labeled as support framing (based on the use of the word “support”), or oppose framing (based on the position of the speaker). By using only tweets in which people discussed their own personal views in terms of opposition or support, we were able to create a cleaner, more precise test of our hypothesis.

The final sample included 19,901 tweets from a total of 15,871 users, and included all relevant tweets available via the twitter API for a 5-day timespan. Five days was used as the time span (rather than a single day) in order to ensure a dataset that would be minimally biased by a single event or tweet; however, the results are consistent using any single day within the dataset. The data collection strategy (including data collection window) and subsequent analyses were preregistered on AsPredicted.org before data collection.

Results

Tweets were coded based on whether they used support language, oppose language, or both. Results indicated that Twitter users were significantly more likely to tweet using support language than oppose language, $N_{\text{support}} = 13,306$, $N_{\text{oppose}} = 4,241$; $\chi^2(1) = 4,683.1$, $p < .001$. Including tweets in which individuals used both support and oppose language ($N_{\text{both}} = 2,354$), this significant difference persisted, $\chi^2(2) = 10,335.22$, $p < .001$.

In addition to the number of tweets, we also analyzed the prevalence of support versus oppose words on Twitter, based on methodology modelled on LIWC (Tausczik and Pennebaker 2010), using quanteda, an R package designed for the quantitative analysis of textual data

(Benoit, et al. 2018). First, two dictionaries were defined, one for support language (“support,” “agree,” and “favor”), and one for oppose language (“oppose,” “disagree,” and “against”). Then, each text response (i.e., tweet) was given two scores, based on the frequency of support words and the frequency of oppose words. Unlike in our filtering step, here we counted every instance of support or oppose language, even if it was not preceded by the word “I.” Thus, the tweet, “I support gun control. Supporting gun control is essential for America” would have a support score of 2. Finally, these two scores were combined into a relative index of support versus oppose framing, by subtracting the oppose score from the support score. In other words, we created an index such that a score of 0 indicated an equal prevalence of support and oppose language, a score less than 0 indicated greater oppose language, and a score greater than 0 indicated greater support language.

Across our dataset, we found a significantly greater prevalence of support language than oppose language, with a mean score of .40, 95% CI = [.39, .42], $t(21,122) = 59.13$, $p < .001$, for our text responses. This result suggests that in addition to a greater number of tweets that use support language than oppose language, there are also a greater number of support words being used than oppose words.

Study 2 – Multi-Issue Correlational Study

Following up on the field study, Study 2 examined the basic relationship between attitude framing and sharing across a variety of attitude issues. To gain insight into the generalizability of this relationship and to distinguish between attitude valence and attitude framing, we measured consumers’ attitudes and corresponding sharing intentions across a variety of brands and policies while varying statement valence.

Method

Our hypotheses, methods, and analytic strategy were preregistered on AsPredicted.org. Based on pilot testing, we set a target sample size of 400 participants. Four hundred and ten participants completed our survey on Amazon Mechanical Turk. Three hundred and fifty-five participants (45.35% female, $M_{\text{age}} = 36.33$) were used in the final analysis, after excluding individuals who failed the attention check. Participants were asked about their attitudes toward seven statements regarding companies and company policies (randomly ordered): (a) Uber has had a positive effect on America, (b) Facebook has had a negative effect on America, (c) Walmart has had a negative effect on America, (d) Bank of America's new policy requiring a minimum balance to avoid fees is bad for its customers, (e) Starbucks' new policy removing plastic drinking straws from their stores is good for America, (f) Google's policy allowing employees to listen to recordings to improve service is bad for America, (g) Coca-Cola's new policy paying for employees' gender assignment surgeries is bad for America. For statements about specific policies, participants were also given a description of the policy in question.

To minimize confounds with other aspects of the statement, we varied the statements on different dimensions (positive versus negative, company evaluation versus policy evaluation, supported by liberals versus by conservatives versus non-political). In other words, by using a variety of statements, we ensured that "support" was not consistently associated with positive valence, nor consistently chosen by a single ideological group. After each statement, participants were asked to report their attitudes toward the statement on a scale anchored at *Strongly Oppose* (0) and *Strongly Support* (100). This rating was used as an indicator of whether the attitude was support-framed or oppose-framed for a given participant (i.e., whether they were thinking of

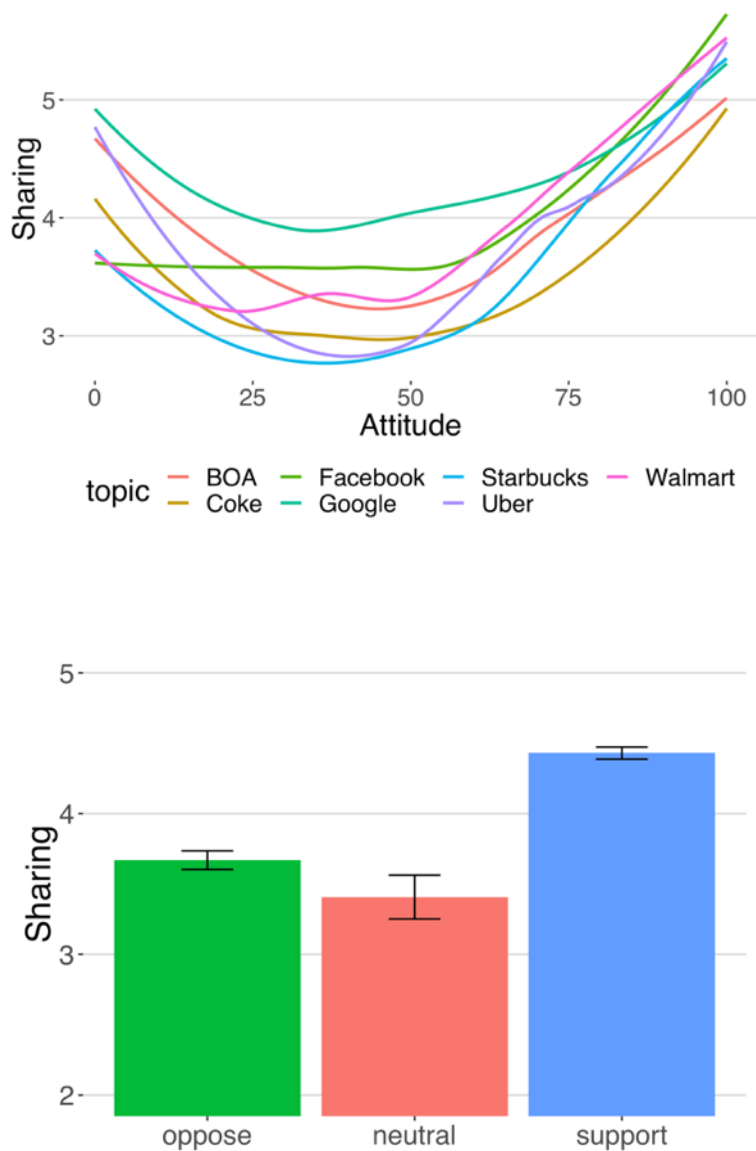
their attitude in support or oppose terms), with lower scores indicating oppose framing and higher scores indicating support framing.

Following the attitude measure for each issue, participants completed a sharing intentions measure adopted from Cheatham and Tormala (2015). To assess sharing intentions, participants answered three questions assessing their likelihood of sharing their views with a friend or family member who disagreed with them, an acquaintance who disagreed with them, or a stranger who disagreed with them (e.g., “How likely would you be to share your views on this topic with your friends or family who disagree with you on this issue?” 1 = *Not at all likely*; 7 = *Extremely likely*). Responses were consistent across the 3 items ($\alpha = .90$), and were averaged to form a single sharing index. Note that we focused the sharing items on disagreeing others to allow us to speak to contexts in which sharing might generally be more limited. Across studies, we replicate our finding regardless of whether the sharing items ask about agreeing or disagreeing targets.

Results

Across topics, participants expressed greater sharing intentions for statements they supported than for statements they opposed. For our main analysis, we used mixed-models with the linear and quadratic effect of attitude framing as fixed-effects and participant and topic as random-effects. For all mixed models, degrees of freedom and p-values were calculated using lme4 (Bates et al. 2015). Attitude framing (the extent to which an individual’s attitude represented support versus opposition) predicted sharing, such that individuals reported greater sharing intentions as their support for the statements increased, $\beta = 12.07$, $t(2172.02) = 17.00$, $p < .001$. In addition, there was a quadratic relationship between attitude framing and sharing, such that individuals with neutral attitudes were less likely to share than individuals with support or oppose attitudes, $\beta = 16.06$, $t(2294.36) = 21.50$, $p < .001$ (See Figure 1a). Although this

curvilinear trend is not the focus of the present research, it is consistent with previous work suggesting that individuals are more likely to talk about more extreme attitudes (Krosnick et al. 1993).



Figures 1a and 1b. Relationship between attitude framing and sharing.

Because there was an overall interaction between attitude framing and topic on sharing, $F(12, 2175) = 4.91, p < .001$, we further explored the relationship between attitude framing and

sharing for individual topics. For all seven topics used, sharing directionally increased as attitudes became more supportive (β range: 2.7–16.2, $ps < .11$). In addition, for six out of seven topics, this relationship reached statistical significance ($ps < .001$; the sole exception was “Coca-Cola’s new policy paying for employees’ gender assignment surgeries is bad for America”, $\beta = 2.67$, $t(352) = 7.43$, $p = .11$). This evidence suggests that the attitude framing and sharing relationship is not specific to a particular attitude object, but may vary in degree across topics.

Given our interest in comparing sharing for issues that participants support versus oppose, as a supplemental data analysis, we divided observations into three groups based on the position taken: opposed to the statement (attitude < 50 ; $N = 770$), neutral to the statement (attitude $= 50$; $N = 131$), and supportive of the statement (attitude > 50 ; $N = 1,584$). Using mixed-models as above, we found a significant difference in sharing between the three groups, $F(2, 2202) = 90.80$, $p < .001$. Participants who opposed the statement reported greater sharing intentions ($M = 3.66$; 95% CI = [3.53, 3.79]) than participants who were neutral toward the statement ($M = 3.41$; 95% CI = [3.10, 3.72]), $t(2246.71) = -4.08$, $p < .001$, $d = .14$. More germane to the present work, participants who supported the statement reported greater sharing intentions ($M = 4.42$; 95% CI = [4.34, 4.51]) than participants who opposed it ($M = 3.66$; 95% CI = [3.53, 3.79]), $t(2263.91) = 10.81$, $p < .001$, $d = .44$ (See Figure 1b).

Finally, we also explored attitude valence as a predictor of sharing using a mixed-model, with a random effect for participant and topic, as well as terms for attitude framing (support/oppose on 100-point scale) and the interaction between attitude valence and attitude framing. Individuals who supported positive statements (i.e., statements with “good” or “positive”), or opposed negative statements (i.e., statements with “bad” or “negative”), were coded as having a positive attitude valence. Those who opposed positive statements or supported

negative statements were coded as having a negative attitude valence. Individuals who indicated neutral attitudes were excluded from analysis. We found no interaction between attitude valence and attitude framing on sharing intentions (linear: $\beta = 0.15$, $t(123.96) = .05$, $p = .96$; quadratic: $\beta = 0.56$, $t(1698.39) = .32$, $p = .75$). Because the interaction was not significant, we then explored a mixed model predicting sharing, with fixed effects for the linear and quadratic effects of attitude framing and the linear effect of attitude valence, as well as random effects for participant and topic. We found no effect of attitude valence on sharing intentions, $\beta = -0.16$, $t(1142.10) = -0.40$, $p = .69$. Controlling for valence, both the linear, $\beta = 11.54$, $t(1369.02) = 13.00$, $p < .001$, and quadratic, $\beta = 15.39$, $t(2128.08) = 19.73$, $p < .001$, relationship between attitude framing and sharing intentions persisted.

Study 3 – In-lab

Study 3 sought to provide causal evidence for the attitude-framing effect in a more controlled setting. To this end, we recruited university students and staff to the laboratory for a study that was ostensibly about online interactions, and we randomly assigned them to either the support-framing or oppose-framing condition. In order to ensure that participants would be sufficiently invested in the topic, we selected gun control as the attitude issue, with the intention of using an attitude issue that participants perceived as personally important. To ensure that participants believed that gun control was an important issue, we also assessed issue importance at the end of the survey.

Method

On the basis of a pilot test indicating a Cohen's d of .30, we set a target sample size of 250 participants, yielding 85% power to detect a medium effect size after allowing for 50

exclusions. In total, 259 university students and staff participated in a lab study for monetary compensation. After excluding participants who failed an attention check (as designated in our preregistration), 208 observations were used in our final analysis (63.90% female, $M_{age} = 24.83$). Our hypotheses, methods, and analytic strategy were preregistered on AsPredicted.org.

At the outset, participants were told that they would be interacting in an online chatroom with another participant in the study, discussing a social issue that would be introduced in the study. To ensure that participants would see others taking the survey at the same time, thereby bolstering realism, participants completed the survey in groups. For any sessions in which only a single participant was present, a confederate acted as another participant, and remained in the room for the duration of the session.

After providing a username to identify themselves throughout the survey, participants were asked to indicate their attitude on three filler topics (same-sex marriage, abortion, and immigration), as well as the target topic (gun control). For the target question, participants were asked, “Which of the following statements best characterizes your attitude towards gun control?” and given three options: “More gun control (i.e., stricter gun laws) would be beneficial to the US,” “More gun control (i.e., stricter gun laws) would be harmful to the US,” or “no opinion.” If participants indicated no opinion, they were asked to choose which of the two statements was closer to their beliefs.

Participants were then assigned to one of two conditions. In the support-framing condition, participants were told that they would be asked to answer questions about the statement they supported—that is, the one they selected. In the oppose-framing condition, participants were told that they would be asked to answer questions about the statement they opposed—that is, the one they did not select. Importantly, in both conditions, participants were

asked about an attitude position that was consistent with their own view. For example, a participant who indicated that more gun control would be beneficial was randomly assigned to answer questions about their support for the beneficial statement or their opposition to the harmful statement. A participant who indicated that more gun control would be harmful was randomly assigned to answer questions about their support for the harmful statement or their opposition to the beneficial statement. Thus, all participants answered questions about their actual attitude, but it was framed in terms of the position they supported or the position they opposed.

After being randomly assigned to an attitude-framing condition, participants were asked to think about how they would approach their upcoming discussion with the other participant. They were told that if possible, they would be paired with someone who disagreed with them on the target issue. Then, participants completed a series of items indicating how likely they would be to share their view with the other participant if they turned out to be a friend or family member, an acquaintance, or a stranger, as in Study 2. After indicating their likelihood of sharing their view, participants were given an opportunity to generate arguments to use in their discussion with the other participant. Participants were given ten text-boxes in which they could input arguments, and were allowed to write as many or as few arguments as they liked before moving on in the study. Finally, participants entered a chat with an individual holding the counterattitudinal viewpoint who was ostensibly another participant. They were allowed to spend as much or as little time in the chat as they liked, and send the messages they had already written to the other participant or write new messages. The other participant was in fact a bot, which sent up to 10 preplanned counterattitudinal arguments, before thanking the participant and exiting.

After the chat was complete, participants completed demographic information. Finally, to gauge whether we had selected an issue that students and staff cared about, we asked participants to indicate the importance of the gun control issue (1 = *Extremely unimportant*, 7 = *Extremely important*).

Results

As a starting point, participants indicated that gun control was an important issue to them ($M = 6.02$, 95% CI = [5.87, 6.18]). More germane to our hypothesis, we found a significant effect of the attitude-framing manipulation on sharing intentions. Participants reported greater sharing intentions in the support-framing condition ($M = 4.93$, 95% CI = [4.69, 5.17]) than in the oppose-framing condition ($M = 4.50$, 95% CI = 4.19, 4.82]), $t(206) = 2.13$, $p = .033$, $d = .30$. Because our primary hypotheses pertained to people's decisions to share, rather than the amount of sharing they actually engaged in in any given instance (e.g., the amount they wrote when they did share during the chat), we treated the effect of condition on sharing intentions as our primary analysis. For exploratory analyses of participants' actual sharing behavior in this study and in Studies 4 and 5, we refer readers to the supplemental materials.

Study 4 – Mediation Study

The goal of Study 4 was to provide evidence for the value expression and impression management mechanisms underlying the effect of attitude framing on sharing decisions. To this end, we measured people's feelings of value expressiveness and their predictions for how positively a message recipient would view them if they shared. In addition, we measured attitude certainty to explore this factor as another potential driver of the effect. As described earlier, considerable research suggests that increased attitude certainty can lead to greater sharing

intentions (e.g., Cheatham and Tormala 2015). Thus, if support framing leads to greater attitude certainty, certainty could offer an alternative or additional mechanism for the attitude framing effect. Interestingly, in previous research on attitude framing (but in which framing and valence were varied simultaneously), oppose-framed attitudes were held with greater certainty than support-framed attitudes (Bizer, Larsen, and Petty 2011), suggesting that certainty is unlikely to offer an account for the effect of framing on sharing, or that if anything it might serve as a *suppressor* of our effect. Nevertheless, to shed further light on the factors that do and do not drive sharing in the current research, we investigated its potential role in Study 4.

Method

Our hypotheses, methods, and analytic strategy were preregistered on AsPredicted.org. Based on a pilot test indicating a Cohen's d of 0.21 for our smallest effect, we set a target sample size of 1000 participants, yielding 90% power to detect our effect after allowing for 50 exclusions (5%). After excluding participants who failed an attention or comprehension check (in line with our preregistration), 955 Amazon Mechanical Turk workers completed the survey for monetary compensation (52.46% female, $M_{age} = 39.09$).

First, participants were asked to indicate their position on four topics—a target topic (gun control) and three filler topics (Immigration, Donald Trump, and NAFTA)—by selecting the statement that best characterized their view. For gun control, the available statements were “More gun control (i.e., stricter gun laws) would be harmful to the US,” “More gun control (i.e., stricter gun laws) would be beneficial to the US,” or “no opinion.” Participants who indicated that they had no opinion on the target issue, gun control, were told that they were ineligible for the survey. Participants were then randomly assigned to support or oppose conditions and told

that they would answer questions about the statement, “More gun control (i.e., stricter gun laws) would be [harmful/beneficial] to the US,” depending on their original attitude and condition assignment. Importantly, as in Study 3, all participants were asked about an attitude position that was consistent with their own view, but we varied whether it was framed in terms of what they supported or what they opposed.

Then, participants were asked to reflect on their attitude toward the appropriate statement and reported their likelihood of sharing their views on this statement with someone who disagreed with them, as in Study 2 (3-item index, $\alpha = .92$). After indicating their likelihood of sharing, participants were given an opportunity to write what they would say to someone who does not hold the same views as them about the statement, writing as much or as little as they would like, with no time or length minimum.

Next, participants were asked to imagine that they had decided to share their view, and reported their prediction for the message recipient’s impression of them and how value expressive sharing this position would be. Recipient impression was measured using two items: “How positively would the message recipient view your values?” “How positively do you think the message recipient would view you as a person?” ($r = .72$). Value expressiveness was also measured using two items: “How representative of your values is your attitude [in favor of/against] the statement, [statement]?” “To what extent would advocating [in favor of/against] the statement, [statement], reflect your values?” ($r = .77$). Responses, provided on scales from 1 (*Not at all*) to 7 (*Extremely*), were averaged for each index. Finally, participants were asked to report their attitude towards the statement (1 = *Extremely opposed*; 7 = *Extremely in favor*), and their attitude certainty (1 = *Not at all certain*; 7 = *Extremely certain*), along with demographic questions. As specified in our preregistration, the attitude item was used in conjunction with the

initial attitude reported as a comprehension check. In order to avoid including participants who misreported their attitude in the initial question and therefore did not complete the task as intended, we excluded individuals who indicated inconsistent attitudes at the beginning and end of the survey. For example, a participant who selected the statement “More gun control (i.e., stricter gun laws) would be beneficial to the US” as the statement they supported at the beginning of the survey, but indicated that they actually opposed this statement later in the survey, would be excluded from the analysis.

Results

We found a significant effect of attitude framing on sharing intentions. Participants reported greater sharing intentions when the issue was framed in terms that they supported ($M = 4.17$, 95% CI = [4.03, 4.31]) relative to terms that they opposed ($M = 3.65$, 95% CI = [3.47, 3.82]), $t(823) = 4.68$, $p < .001$, $d = .33$). We also found a significant effect of attitude framing on the two proposed mediators, value expressiveness and positive impression. First, participants viewed their sharing as more value expressive in the support-framing condition ($M = 5.74$, 95% CI = [5.64, 5.85]) than in the oppose-framing condition ($M = 4.65$, 95% CI = [4.44, 4.85]), $t(823) = 9.90$, $p < .001$, $d = .69$. Participants also believed that the message recipient would have a more positive impression of them after sharing in the support-framing condition ($M = 3.71$, 95% CI = [3.58, 3.84]) relative to the oppose-framing condition ($M = 3.44$, 95% CI = [3.28, 3.59]), $t(823) = 2.65$, $p = .008$, $d = .19$.

To determine whether the effect of condition on sharing intentions was driven by the proposed mediators, we conducted mediation analyses using structural equation modeling to explore multiple pathways (Kline 2005), using the lavaan package in R. We specified our hypothesized model using unidirectional paths to test the two indirect pathways of interest. In the

first pathway, attitude-framing condition predicted value expressiveness, which predicted sharing intentions. In the second pathway, attitude-framing condition predicted positive impression, which also predicted sharing intentions.

We then explored the specific path coefficients in our model. In this and all subsequent models, we simultaneously assessed both pathways. Thus, all reported effects control for the other pathway. First, we examined the pathway from condition to sharing intentions through value expressiveness. Support framing led to greater value expressiveness, $\beta = 0.66$, $Z = 9.40$, $p < .001$, which in turn predicted greater sharing intentions, $\beta = 0.19$, $Z = 4.69$, $p < .001$. There was a significant indirect effect through this pathway, $ab = .12$, $Z = 4.28$, $p < .001$. Second, we examined the pathway from condition to sharing intentions through positive impression. Support framing led to higher positive impression ratings, $\beta = .19$, $Z = 2.53$, $p = .01$, which were associated with greater sharing intentions, $\beta = .27$, $Z = 7.64$, $p < .001$. We found a significant indirect effect through this pathway as well, $ab = .05$, $Z = 2.35$, $p = .02$ (See Figure 2).

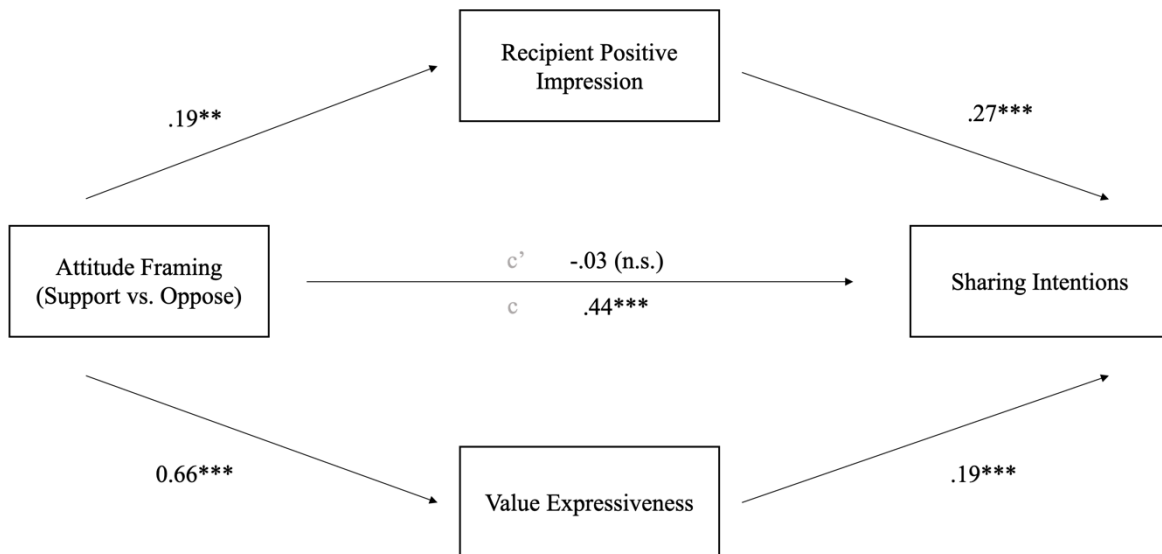


Figure 2. The effect of attitude framing on sharing intentions is mediated by recipient positive impression and value expressiveness.

In addition to exploring the roles of expressiveness and positive impression, we also tested the effect of attitude certainty as a possible alternative explanation for the attitude-framing effect. We found no difference in certainty between the support-framing condition ($M = 6.42$, 95% CI = [6.34, 6.50]) and the oppose-framing condition ($M = 6.34$, 95% CI = [6.24, 6.45]), $t(823) = 1.14$, $p = .27$. Controlling for attitude certainty in the model, all significant relationships remained significant.

Study 5 – Targets with Similar versus Dissimilar Attitudes

The experiments thus far show that across a variety of topics, individuals are more likely to share their views when their attitudes are framed in terms of support rather than opposition. Notably, across our experimental studies, we focused primarily on sharing with disagreeing others. The rationale was that given the prevalence of echo chambers in modern society (Pew Research Center 2017; Quattrociocchi, Scala, and Sunstein 2016), understanding the factors that prompt people to share their views with others who disagree could be of particular importance. For both theoretical and practical purposes, though, it would be informative to know whether our findings apply only to instances in which message recipients have dissimilar attitudes (as demonstrated thus far), or whether they also would manifest when message recipients have similar attitudes. To this end, in Study 5, we manipulated whether participants focus their sharing on dissimilar or similar attitude targets. We also measured value expressiveness and recipient positive impression as in Study 4, in order to test the robustness of these mechanisms.

Method

Our hypotheses, methods, and analytic strategy were preregistered on AsPredicted.org. As in Study 4, in Study 5 we set a target sample size of 500 participants per cell. In this study that resulted in a total of 2000 participants. After excluding participants who failed an attention or comprehension check (in line with our preregistration), 1808 Amazon Mechanical Turk workers completed the survey for monetary compensation (56.80% female, $M_{age} = 37.58$).

The design of Study 5 closely paralleled Study 4, where participants were first asked to indicate their position on filler topics, as well as the target topic (in this case, same-sex marriage). Participants who indicated that they had no opinion on the target issue were told that they were ineligible for the survey. Participants were then randomly assigned to either the support-framing or oppose-framing condition and told that they would answer questions about the statement, “Legalizing same-sex marriage is good for the US,” or “Legalizing same-sex marriage is bad for the US,” depending on their original attitude and condition assignment. As in the previous experiments, all participants answered questions about an attitude position that was consistent with their overall attitude (e.g., about supporting that same-sex marriage is good or opposing that it is bad).

Participants were also assigned to one of two target conditions. In the *dissimilar-attitude target* condition, participants were asked to report their sharing intentions toward individuals who disagreed with them on the target issue, as in Studies 2-4. In the *similar-attitude target* condition, participants were asked to report their sharing intentions toward individuals who agreed with them on the target issue. After indicating their sharing intentions on the same measures as in Studies 2-4 ($\alpha = .93$), participants created a username and were given the opportunity to write what they would say to someone who holds or does not hold the same view

as them. Participants could write as much or as little as they liked, with no time or length minimum. Participants were also told that their message may be shown to a participant who agrees or disagrees with them, based on random assignment.

Finally, participants answered questions about the message recipient's impression of them ($r = .88$), how value expressive sharing this position would be ($r = .73$), and attitude certainty. These measures were identical to those used in Study 4. As behavioral measures of whether participants would share, participants were also asked whether they wanted their message to be shown to participants in future studies (Yes/No), and asked whether they wanted to be contacted for future studies to discuss this topic in real-time with another participant (Yes/No).

Results

We began by testing a model with main effects for attitude framing and target (*similar-attitude target* versus *dissimilar-attitude target*), and an interaction term. We found a significant effect of attitude framing on sharing, such that individuals in the support-framing condition reported greater sharing intentions than did individuals in the oppose-framing condition, $F(1, 1804) = 77.04, p < .001$. We found no difference in sharing intentions between the similar-attitude target and dissimilar-attitude target conditions, $F(1, 1804) = .05, p = .82$. Finally, we found no interaction between attitude framing and target on sharing ($F(1, 1804) = 2.37, p > .10$). Thus, for subsequent analyses, we collapsed across target conditions. Running separate analyses for similar and dissimilar attitude targets yields consistent results to those reported below.

Collapsing across target conditions, participants reported greater sharing intentions when the attitude was framed in terms that they supported ($M = 4.63, 95\% \text{ CI} = [4.53, 4.72]$) relative to terms that they opposed ($M = 3.77, 95\% \text{ CI} = [3.64, 3.90]$), $t(1806) = 10.59, p < .001, d = .50$.

We also found a significant effect of attitude framing on the proposed mediators. First, participants viewed their sharing as more value expressive in the support-framing condition ($M = 5.97$, 95% CI = [5.90, 6.04]) than in the oppose-framing condition ($M = 4.82$, 95% CI = [4.68, 4.97]), $t(1806) = 14.66$, $p < .001$, $d = .69$. Participants also believed that the message recipient would have a more positive impression of them after sharing in the support-framing condition ($M = 4.41$, 95% CI = [4.30, 4.51]) relative to the oppose-framing condition ($M = 3.54$, 95% CI = [3.42, 3.66]), $t(1806) = 10.67$, $p < .001$, $d = .50$.

We also conducted a formal mediation analysis, following the same procedure as in Study 4. First, we examined the pathway from attitude framing to sharing intentions through value expressiveness. Support framing led to greater value expressiveness, $\beta = 0.66$, $Z = 13.76$, $p < .001$, which in turn predicted greater sharing intentions, $\beta = 0.30$, $Z = 11.03$, $p < .001$. We found a significant indirect effect for this pathway, $ab = 0.20$, $Z = 9.08$, $p < .001$. Second, we examined the pathway from attitude-framing to sharing intentions through positive impression. Support framing led to higher positive-impression ratings, $\beta = 0.49$, $Z = 10.87$, $p < .001$, which predicted greater sharing intentions, $\beta = 0.21$, $Z = 8.92$, $p < .001$. We found a significant indirect effect through this pathway as well, $ab = 0.10$, $Z = 6.08$, $p < .001$. All significant pathways remained significant after controlling for attitude certainty ($abs > 0.09$, $Zs > 6.67$, $ps < .001$).

Finally, we also found an effect of attitude framing on behavioral measures of participants' sharing decisions. Participants in the support-framed condition (84.07%) were more likely to choose to show their messages to future participants than participants in the oppose-framed condition (71.55%), $\chi^2(N = 1808, 1) = 40.69$, $p < .001$. Participants in the support-framed condition (77.97%) were also more likely to opt-in to being contacted for a future real-time

interaction on this topic than participants in the oppose-framed condition (72.94%), $\chi^2(N = 1,806, 1) = 5.86, p = .02$.

Study 6 – Moderation by Positive Impression Importance

The experiments so far show that for a variety of topics, ranging from brands and their policies to social and political issues, attitude framing influences sharing intentions. Studies 4 and 5 suggest that this effect occurs through two pathways: value expressiveness and impression management. As outlined earlier, these mechanisms are rooted in interaction goals. People approach social interactions with different goals in mind, and two fundamental goals involve value expression and impression management. Based on our framework and proposed mechanisms, we would expect the effect of attitude framing to vary depending on the specific goals people bring to bear in any given context. If people cared less about impression management, for instance, we might expect the attitude framing effect to be attenuated relative to what we have observed thus far.

To explore this possibility, Study 6 assessed the effect of attitude framing on sharing intentions in a context in which people's impression management goals should be dampened. Specifically, we tested the effect of attitude framing on sharing with dissociative outgroups—that is, reference groups people wish to avoid being associated with (Englis and Solomon 1995; Turner 1991; White and Dahl 2006, 2007). Extant research suggests that people tend to avoid products, brands, and behaviors that they believe would link them to dissociative outgroups (Berger and Heath 2008; Berger and Rand 2008; Dunn, White, and Dahl 2012; Ferraro, Bettman, and Chartrand 2009; White and Dahl 2006, 2007), but to our knowledge no research has explored people's sharing intentions with respect to dissociative outgroups.

We posit that in addition to avoiding dissociative groups, individuals might sometimes be motivated to be *disliked* by them, especially in cases in which these groups are viewed as having different values or ideologies. Indeed, perhaps being disliked (or at least not liked) by a group with starkly different values is affirming to one's own values or identity, whereas being liked by these individuals would be threatening or cause value or identity confusion. Consider balance theory (Heider 1958). This theory suggests that if individuals with starkly different attitudes or values view us favorably (i.e., have a positive impression of us), a dissonant feeling of imbalance can arise, which we are motivated to avoid or resolve. Extending this theory to the current concerns, perhaps when people consider dissociative-outgroup targets, they prefer to be disliked, which attenuates the effect of attitude framing on sharing given its partial basis in impression management goals. Study 6 tests this possibility. We hypothesized that the effect of attitude framing on sharing would be reduced when people considered sharing with dissociative outgroups.

Method

Our hypotheses, methods, and analytic strategy were preregistered on AsPredicted.org. As in Studies 4 and 5, we set a target sample size of 500 participants per cell (2,000 participants total). After excluding participants who failed an attention or comprehension check (in line with our preregistration and our previous studies), 1701 Amazon Mechanical Turk workers remained in the dataset for analysis (56.67% female, $M_{age} = 36.86$).

At the outset, participants were assigned to one of two outgroup target conditions: dissociative outgroup and control outgroup. In the *dissociative outgroup* condition, participants were asked to identify a group with values that are different from their own, and with whom they wish to avoid being associated (adapted from White and Dahl 2007). In the *control outgroup*

condition, participants were asked to identify a group that they are not a part of, but would have no problem being associated with, that has some similar values to them and some different values from them. After participants identified and typed in an appropriate outgroup, the experiment proceeded in much the same way as Studies 4 and 5. Participants were told about Dick's Sporting Goods implementing a policy that limited their gun sales, before indicating their attitude by selecting the statement that best characterized their view on the policy: "Dick's Sporting Goods' new gun policy (limiting sales) is a positive change," "Dick's Sporting Goods' new gun policy (limiting sales) is a negative change," or "no opinion." Participants who indicated that they had no opinion on the target issue were told that they were ineligible for the survey.

Participants were then randomly assigned to either the support-framing or oppose-framing condition and told that they would answer questions about the statement, "Dick's Sporting Goods' new gun policy (limiting sales) is a [positive/negative] change," depending on their original attitude and condition assignment. To ensure that participants understood that their sharing could oppose the statement, we also included an indication of their attitude in the prompt. For example, participants who indicated that they believed the change was negative, and were assigned to the *oppose-framing condition*, received the message, "We are interested in your thoughts on the idea that 'Dick's Sporting Goods' new gun policy (limiting sales) is a positive change', which you said you oppose." Participants who indicated that they believed the change was negative, and were assigned to the *support-framing condition*, received the message, "We are interested in your thoughts on the idea that 'Dick's Sporting Goods' new gun policy (limiting sales) is a negative change', which you said you support."

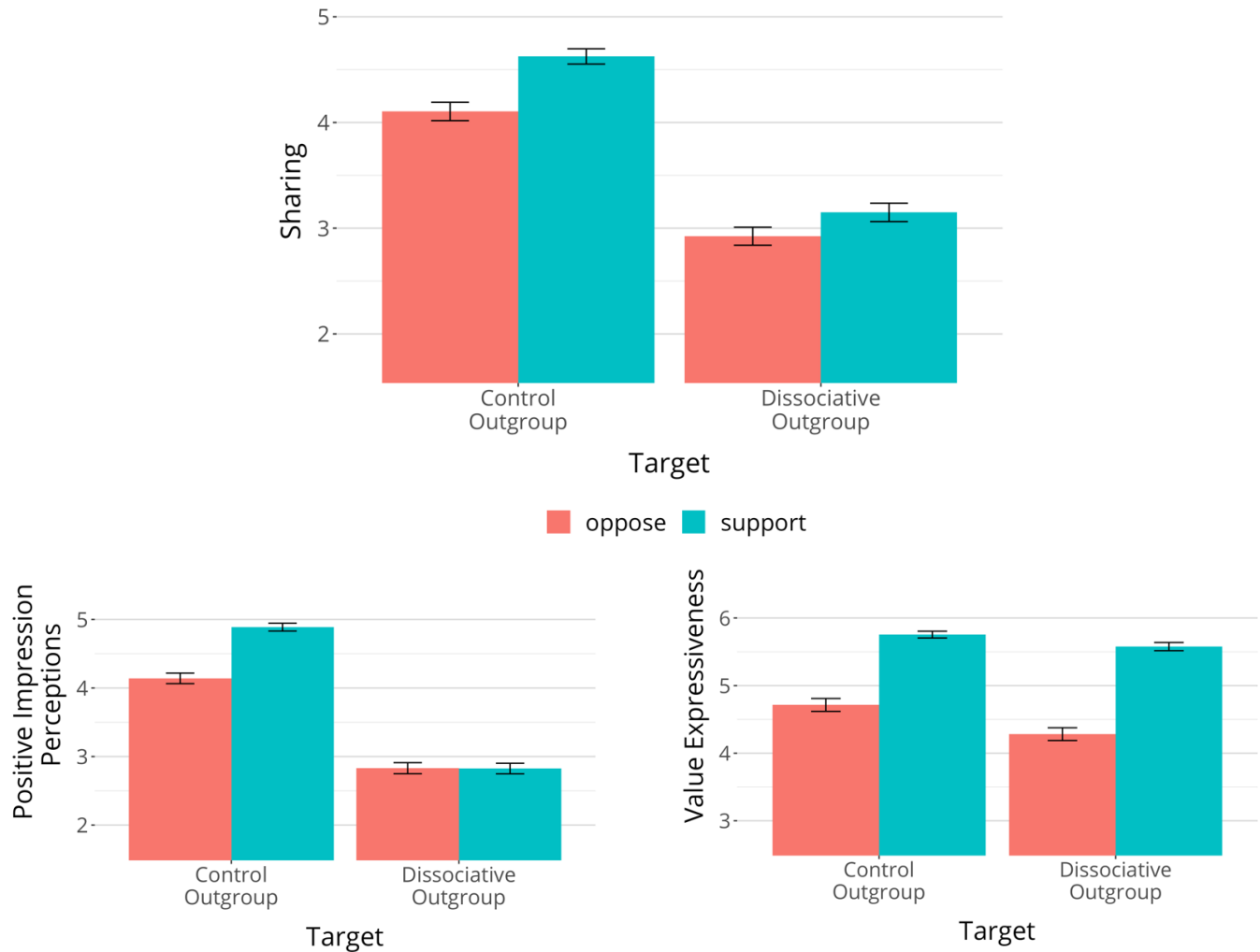
After reading the statement, participants were asked their sharing intentions, as in previous studies. However, rather than indicating general sharing intentions, participants were asked to report their sharing intentions towards individuals in the identified outgroup. The same 3-item index was used as in the previous studies, but we modified it to indicate the appropriate sharing target (e.g., “How likely would you be to share your views on this statement with a friend or family member who is a member of the group, [previously identified outgroup]?”; $\alpha = .93$). In other words, participants were asked their sharing intentions with respect to a member of a dissociative outgroup or a control outgroup.

Following the sharing-intention items, participants answered questions on value expressiveness ($r = .69$) and the message recipient’s impression of them ($r = .85$) if they shared their attitude, using the same measures as in the previous studies. Responses, provided on scales from 1 (*Not at all*) to 7 (*Extremely*), were averaged for each index. Finally, participants completed manipulation checks assessing their desired impression after interacting with a member of the identified group. Desired impression was measured with two items: “How positively do you want this individual to view [your values/you as a person]?” Responses, provided on a scale from 1 (*Extremely negatively*) to 7 (*Extremely positively*), were averaged ($r = .73$). In addition, participants were instructed to, “Imagine that you are choosing one of three messages to send to this individual: One that will make them like you, one that will make them dislike you, or one that will make them neutral towards you. Which would you send?”, and given a trinary choice (“the one that would make them like me,” “the one that would make them neutral toward me,” “the one that would make them dislike me”).

Results

The results from both manipulation checks suggested that participants wanted to be liked less by individuals in dissociative outgroups than control outgroups. Participants desired to be viewed more positively by control outgroup members ($M = 5.57$, 95% CI = [5.50, 5.64]) than by dissociative outgroup members ($M = 4.90$, 95% CI = [4.81, 4.99], $t(1699) = 11.81$, $p < .001$). In addition, while 65% of individuals in the control outgroup condition indicated that they would send a message that would make them liked, only 33% of individuals in the dissociative outgroup condition indicated that they would send a message that would make them liked, $\chi^2(2, N = 1701) = 191.99$, $p < .001$.

We found a marginally significant interaction between outgroup target and attitude framing on sharing intentions, $F(1, 1697) = 3.19$, $p = .07$ (see Figure 3a). For individuals sharing with a member of a control outgroup, support framing ($M = 4.62$, 95% CI = [4.48, 4.77]) led to significantly greater sharing intentions than did oppose framing ($M = 4.10$, 95% CI = [3.93, 4.27]), $F(1, 1697) = 95.17$, $p < .001$. For individuals sharing with a member of a dissociative outgroup, support framing ($M = 3.15$, 95% CI = [2.98, 3.32]) still led to marginally higher sharing intentions than did oppose framing ($M = 2.92$, 95% CI = [2.76, 3.09]), $F(1, 1697) = 3.68$, $p = .06$, but to a lesser extent.



Figures 3a, 3b, and 3c. Interaction between target outgroup and attitude framing on sharing, positive impression perceptions, and value expressiveness.

We further analyzed the interaction between outgroup target and attitude framing on our mediators, positive impression ratings and value expressiveness. We found a significant interaction between outgroup target and attitude framing on positive impression ratings, $F(1, 1697) = 26.86, p < .001$ (see Figure 3b). For individuals sharing their attitude with a member of a control outgroup, support framing ($M = 4.49, 95\% \text{ CI} = [4.78, 5.00]$) led to significantly greater perceived positive impression than did oppose framing ($M = 4.14, 95\% \text{ CI} = [3.99, 4.29], F(1,$

1697) = 26.86, $p < .001$. However, for individuals sharing their attitude with a member of a dissociative outgroup, support framing ($M = 2.82$, 95% CI = [2.67, 2.98]) did not lead to significantly greater perceived positive impression ratings than did oppose framing ($M = 2.83$, 95% CI = [2.67, 2.99]), $F(1, 1697) = 0.002$, $p = .96$.

We also found a marginally significant interaction between attitude framing and target on value expressiveness, $F(1, 1697) = 2.86$, $p = .09$ (see Figure 3c). For individuals sharing with a member of a control outgroup, support framing ($M = 5.75$, 95% CI = [5.66, 5.85]) led to greater value expressiveness than did oppose framing ($M = 4.71$, 95% CI = [4.71, 4.90]), $F(1, 1697) = 53.6$, $p < .001$. For individuals sharing with a member of a dissociative outgroup, support framing ($M = 5.58$, 95% CI = [5.46, 5.70]) also led to greater value expressiveness than did oppose framing ($M = 4.28$, 95% CI = [4.09, 4.47]), $F(1, 1697) = 146.31$, $p < .001$. Thus, in the case of value expressiveness, there was a *larger* effect of support framing in the dissociative outgroup condition, but the attitude-framing effect held across conditions.

We then performed a moderated mediation analysis examining whether the relationship between attitude framing and sharing was mediated by our two proposed pathways, and whether the link between attitude framing and positive impression was moderated by outgroup target. According to our theorizing, in the impression-management pathway, the path from attitude framing (independent variable) to sharing intentions (dependent variable) should operate through positive impression, and therefore should apply only when the target is a control outgroup (vs. dissociative outgroup).

To assess this moderated mediation model, we used lavaan in R and followed bootstrapping recommendations (Preacher, Rucker, and Hayes 2007); see Figure 4 for full model. In our first pathway, we tested whether the effect of attitude framing on sharing was

mediated by value expressiveness. Attitude framing predicted value expressiveness, $\beta = 0.71$, $Z = 14.74$, $p < .001$, which subsequently predicted sharing, $\beta = .35$, $Z = 8.18$, $p < .001$, $ab = .25$, $Z = 7.56$, $p < .001$. Then, we tested our second pathway, through impression management. The first leg of the pathway, which regressed participants' perceived positive impressions on attitude-framing condition, outgroup condition, and the interaction between attitude-framing condition and outgroup condition, yielded a significant attitude-framing condition $\times$ outgroup interaction, $\beta = -0.43$, $Z = -4.92$, $p < .001$, suggesting that the effect of attitude framing on perceived positive impressions depended on target. When participants were asked to consider a control outgroup, support framing led to greater perceived positive impression, $\beta = .43$, $Z = 8.05$, $p < .001$; this effect, however, became nonsignificant when participants were asked to consider a dissociative outgroup, $\beta = -.003$, $Z = -.05$, $p = .97$. The second leg of this pathway showed that perceived positive impressions predicted sharing intentions, $b = .82$, $Z = 19.94$, $p < .001$. The moderated mediation for this pathway was significant, *index of moderated mediation* = -0.15 , $Z = -3.28$, $p = .001$.

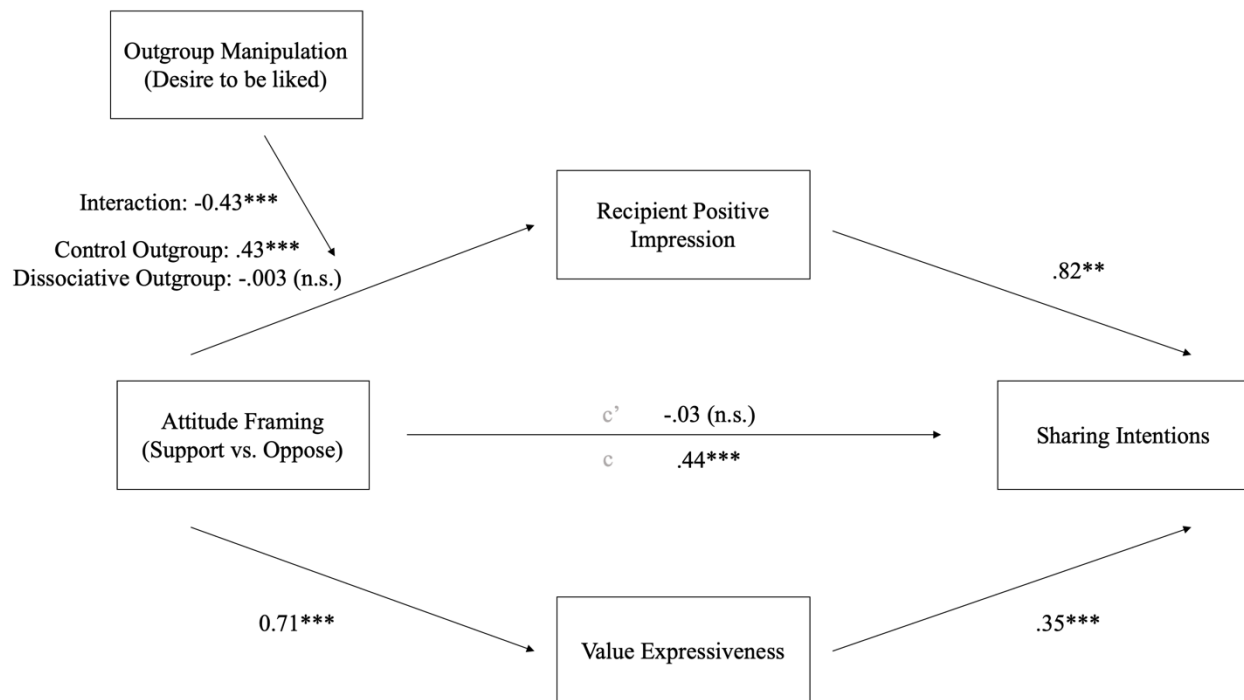


Figure 4. The effect of attitude framing on sharing intentions is moderated by the desire to be liked, and mediated by recipient positive impression and value expressiveness.

GENERAL DISCUSSION

The findings of five experiments and one field study reveal that attitude framing impacts sharing decisions. People are more likely to share their views when their attitudes are framed in terms of what they support rather than what they oppose. We find that attitude framing is fully separable from valence, and occurs for both positive and negative attitudes (Study 2). Furthermore, the attitude-framing effect is causal: Reframing the same attitude as one that an individual supports leads to greater sharing, even when support- and oppose-framed attitudes are logically equivalent (Studies 2-6). This attitude-framing effect is driven by two pathways (Studies 4-6). In the first, individuals feel that their support-framed attitudes are more value expressive, and in turn are more likely to share them. In the second, individuals believe that support framing will lead to a more positive impression, which contributes to greater sharing as

well. This attitude-framing effect occurs for targets with similar or dissimilar attitudes (Study 5) and is moderated when individuals do not want to be liked (or even actively want to be disliked), as in the case of dissociative outgroups (Study 6).

In short, the current studies suggest that attitude framing is a critical driver of sharing decisions, and that this effect is driven at least in part by the hypothesized mechanisms. How does the framing effect compare to the valence effect observed in past research? As noted earlier, an extensive literature suggests that people often are more likely to share positively rather than negatively valenced attitudes (e.g., De Angelis et al., see Berger 2014 for a review). However, because previous research commonly confounded attitude valence and attitude framing, it is unclear whether this effect was driven by valence per se, or instead by attitude framing or some combination of the two.

To address this question in the current context, Study 2 (our only study using multiple issues) separated attitude valence and attitude framing as predictors of sharing. We found that framing predicted sharing intentions, whereas valence did not. This study provided initial evidence for the notion that the valence effect reported in past research might be driven by, or at least linked to, attitude framing. Unfortunately, in Studies 3-6, we focused on single issues and thus were unable to conduct comparable analyses, because attitude valence in those studies was tied to specific attitude positions. For example, if people who had positive attitudes toward same-sex marriage were more likely to share their views, this could be about positive valence in general or it could be something unique about being positive toward same-sex marriage.

To explore this issue further, we conducted a meta-analysis of Studies 2-5 plus the Study 6 control condition, which allowed us to test the effects of attitude framing and valence across multiple issues such that positive and negative valence would not always map onto the same

issue positions (McShane and Böckenholt 2017). For this meta-analysis, we examined three contrasts relevant to the current research question. In the first contrast, to parallel past research on valence, we compared the support-framing/positive attitude combination to the oppose-framing/negative attitude combination. The results were consistent with past research: Support/positive attitudes led to greater sharing than did oppose/negative attitudes (estimate = 0.97, $SE = 0.18$, $Z = 5.39$, $p < .001$). In the second contrast, to test for an attitude-framing effect, we compared the two support-framing combinations (support/positive and support/negative) to the two oppose-framing combinations (oppose/positive and oppose/negative). Our results suggested an attitude-framing effect, such that support-framed attitudes were more likely to be shared than oppose-framed attitudes, regardless of valence (estimate = 1.34, $SE = 0.25$, $Z = 5.36$, $p < .001$). Finally, in the third contrast, we compared the two positive attitude combinations (support/positive and oppose/positive) to the two negative attitude combinations (support/negative and oppose/negative). This analysis offered evidence for a valence effect such that positive attitudes were shared more than negative attitudes (estimate = 0.59, $SE = 0.25$, $Z = 2.36$, $p = .02$), regardless of framing. Importantly, though, this valence effect was much smaller in magnitude than the attitude-framing effect revealed in the second contrast. This pattern of results suggests that attitude-framing and valence affected sharing independently, but that attitude-framing may play a significantly larger role.

CONTRIBUTION STATEMENT

To our knowledge, the present research is the first to investigate the role of attitude framing in sharing behavior. By introducing the distinction between attitude framing and attitude valence, we disentangle their effects on sharing and can isolate the effect of attitude framing in

particular. Across studies, we find that support framing promotes greater sharing than does oppose framing, regardless of attitude valence. We provide converging evidence for this effect and its psychological mechanisms across six studies, with empirical evidence from over 25,000 individuals in the field, in the lab, and online. Our studies suggest that the effect of valence on sharing might be overestimated in past research, and that in fact some such effects could stem from attitude framing as much as, if not more than, valence. This insight could have profound implications that reach far beyond understanding the determinants of sharing behavior. Indeed, the current research opens the door to re-exploring valence effects in other contexts, beyond sharing, to determining if attitude framing might play an important role in those settings as well.

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