



The role of perceived attitudinal bases on spontaneous and requested advocacy[☆]

Jacob D. Teeny^{*}, Richard E. Petty

The Ohio State University, 1827 Neil Ave Mall, Columbus, OH 43210, USA



ARTICLE INFO

Handling editor: Tara MacDonald

Keywords:

Attitudes
Persuasion
Advocacy
Perceived basis
Affect
Cognition

ABSTRACT

The attitudes and persuasion literature has extensively examined what makes a message influential, paying much less attention to what makes someone communicate that message in the first place (i.e., engage in attitudinal advocacy). In addressing this, the present research first makes a novel distinction regarding the type of advocacy (requested versus spontaneous). Then, we examine how one's perceived attitudinal base (affective or cognitive) influences intentions to engage in each type of advocacy. Across six studies (four correlational and two experimental, $n = 1040$), this research demonstrates two consistent patterns: perceiving one's attitude to be more cognitively (vs. affectively) based results in greater willingness to engage in requested advocacy, whereas perceiving one's attitude to be more affectively (vs. cognitively) based results in greater willingness to engage in spontaneous advocacy.

1. Introduction

In order to change people's opinions and thus society, you must have more than just a persuasive message: you must have someone willing to deliver that message in the first place. Advocacy, which can encompass a wide variety of behaviors, will be examined as the stated willingness to provide arguments to others in favor of one's own attitude or position (Cheatham & Tormala, 2015). Whether a person's attitude is toward a societal norm, a particular political candidate, or a consumer product, providing arguments to another in support of one's position is an act of advocacy. In an age where social media has given megaphones to virtually everyone, the urgency to understand when and why people are willing to engage in advocacy has not been greater. However, for as much as the attitude change literature knows about the factors that make a communication the most influential (e.g., see Eagly & Chaiken, 1993; Petty & Wegener, 1998), the field has far less understanding about when and why someone would be willing to deliver that communication in the first place.

1.1. Advocacy research

The research on advocacy in social psychology is relatively scant and eclectic. For example, one of the first investigations relevant to advocacy came in Festinger, Riecken, and Schachter's (1956) now classic study, which demonstrated that uncertainty induced in an

attitude resulted in heightened proselytizing—an effect that wasn't replicated in the lab until 50 years later (Gal & Rucker, 2010). More recent work on certainty and advocacy has shown a curvilinear relationship, whereby those who are induced to feel high or low certainty in an attitude are more willing to advocate than those with only moderate amounts (Cheatham & Tormala, 2017). However, even with this research, our understanding of the attitudinal properties that predict advocacy intentions remains limited. To begin addressing this, we first distinguish between two different types of attitudinal advocacy, each with potentially different antecedents.

In considering advocacy, it first begins when an individual decides he or she is willing to advocate. Drawing on work in other fields that has distinguished between *proactive* and *reactive* behaviors (e.g., Berkowitz, 1988; Raine et al., 2006), sometimes, people will decide to engage in *spontaneous advocacy* (e.g., seeking out a friend to convince him/her about a recent political issue), while at other times, the decision to advocate could be a result of someone else's prompting, that is, *requested advocacy* (e.g. arguing for a particular restaurant after a friend explicitly asks for a recommendation). For example, a young woman may read an article about a disadvantageous change to the health care system and subsequently initiate a conversation with a friend to argue her stance (spontaneous advocacy). On the other hand, that same woman could have read the article and initially kept her dissent quiet; however, once a friend asks for her opinion on the matter, she promptly argues for her beliefs (requested advocacy). In daily life, we naturally

[☆] This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

^{*} Corresponding author.

E-mail address: teeny.1@osu.edu (J.D. Teeny).

engage in both types of advocacy, and it may be that different antecedents predict these different forms.

Although the present research is the first to examine this basic distinction between spontaneous and requested advocacy, other research has examined one side of it. For example, research by Akhtar, Paunesku, and Tormala (2013) measured people's willingness to advocate in response to a request for their opinions after hearing incompetent arguments from fellow supporters. This research showed that when a sample of adults was explicitly asked to express their opinions after hearing others poorly (vs. strongly) defend a supported attitude, they reported greater intentions to engage in advocacy. However, would those who expressed a willingness to speak upon being cued also be willing to spontaneously advocate for their beliefs? Or, are those engaging in spontaneous advocacy just as likely to advocate when someone specifically inquires about their stance on the matter? This distinction between willingness to advocate when requested versus spontaneously is central to the current research.

1.2. Affective versus cognitive bases of attitudes and the impact on advocacy

Although advocacy itself is a relatively new area of research, prior work has identified a number of variables that make a person more likely to act in accordance with their attitudes (e.g., purchasing attitude congruent products; see Petty & Krosnick, 1995, for a review). Since advocacy is a form of acting in accord with one's attitude, these same variables could presumably affect advocacy (for example, the recent work on attitude certainty and advocacy; Cheatham & Tormala, 2017). The current research examines an important and classic set of variables shown to influence the likelihood of attitude-consistent action, namely, whether an attitude is based primarily on affect or cognition (Breckler, 1984; Crites, Fabrigar, & Petty, 1994; Mann, 1959; Rosenberg & Hovland, 1960; Ostrom, 1969; Zanna & Rempel, 1988).¹

The affective bases of an attitude refer to the valenced emotions and feelings (e.g., happiness versus sadness) underlying the positivity or negativity of one's evaluation. Cognitive bases refer to the valenced attributes and reasons (e.g., useful versus useless) that underlie the evaluation. For example, a person can be in support of the environment because seeing forests destroyed makes him/her angry (affective base) or because she/he believes protecting the environment is beneficial to the economy (cognitive base). Research has demonstrated that these attitudinal bases are not only conceptually distinct (Breckler & Wiggins, 1989), but also influence behaviors and evaluations separately (Crites et al., 1994).

Previous work on affectively versus cognitively based attitudes has shown that when a task is framed to match the basis of one's attitude (e.g. a cognitively framed task for a cognitive attitude), the individual is more likely to engage in the behavior than if the situation is mismatched (Millar & Tesser, 1986, 1989). In terms of advocacy, first consider when advocating is done in response to an explicit request. In this instance, someone solicits another person for his or her stance on a matter, and this specific entreaty to engage in advocacy could in turn make salient the expectation for a thoughtful or reason-based response. For example, in classic work by Wilson, Dunn, Bybee, Hyman, and Rotondo (1984), asking participants *why* they held the evaluation that they did compelled them to provide a cognitive explanation, even though the evaluations in question were on affective topics (e.g., game playing). Moreover, research on the expectations of social communication (Grice, 1975, 2008) shows that when people engage in "cooperative communication" (e.g., when one person solicits another for his/her opinion), we try to abide by a "maxim of quality" and provide information that is truthful and reliable. If so, one might engage in requested advocacy primarily to the extent that one believes reasons

¹ Research has also established a third basis for attitudes, behavioral information, but because this basis is not relevant to the current research, it is not discussed.

underlie the attitude (i.e., a cognitive basis). In which case, we hypothesize that attitudes associated more with cognition (vs. affect) would lead to greater intentions to advocate upon request.

The situation may be quite different, however, when considering spontaneous advocacy. In this case, the individual is electing to advocate without any kind of prompting from another person. Previous research on affect has shown that affective (compared to cognitive) attitudes are associated with greater attitude accessibility (Giner-Sorolla, 2004; Rocklage & Fazio, in press; van den Berg, Manstead, van der Pligt, & Wigboldus, 2006; Verplanken, Hofstee, & Janssen, 1998). Thus, affectively based attitudes may come to mind more easily and frequently and therefore result in more spontaneous behavior, including advocacy. Beyond accessibility, though, other research has also connected affective attitudes to energization (Davis & Lamberth, 1974; Lombardo, Libkuman, & Weiss, 1972). That is, the emotion underlying the attitude may increase the participant's tendency to spontaneously act on it. However, even if actual affect is absent, the mere perception that emotion is associated with the attitude could exert the same effects. Indeed, research shows that people have extensive knowledge and expectations for how emotions will influence them (e.g., Barrett, Mesquita, & Gendron, 2011; Ellsworth & Scherer, 2003; Ong, Zaki, & Goodman, 2015), and these expectations can guide behaviors and behavioral intentions (Olson, Roese, & Zanna, 1996). Thus, whether the emotion actually underlies the attitude or someone simply perceives that it does, these types of attitudes could result in a greater expectation that one would spontaneously approach another to advocate. Thus, we hypothesize that attitudes associated more with affect (vs. cognition) would lead to greater intentions to spontaneously advocate.

Although some prior research has focused on situations in which attitudes are based solely or mostly on affect or cognition, it is important to recognize that people can have both affective and cognitive bases underlying an attitude, and these bases can influence one another (Eagly, Mladinic, & Otto, 1994). What is particularly valuable for distinguishing the unique effects of each basis, then, is the relative comparison between the two. For example, See, Petty, and Fabrigar (2008) measured participants' attitudinal bases and then gave them either an affectively or cognitively worded persuasive appeal. Although most participants had elements of both bases underlying their attitude, those who had relatively more affective attitudes were more persuaded by the affective message, whereas the opposite was true for those who had relatively more cognitive attitudes (see also Haddock, Maio, Arnold, & Huskinson, 2008). With advocacy, then, what may be important in predicting which type of advocacy the individual prefers (i.e. requested or spontaneous) is the extent to which one's attitudinal base is either relatively more cognitive or affective (i.e., which basis is more dominant). As just explained, our core hypothesis is that spontaneous advocacy will be more linked to a relative affective basis whereas requested advocacy will be more linked to a relative cognitive basis.²

1.3. Structural bases vs. meta-bases of affect and cognition

Before turning to the current studies, it is important to note that the literature has identified two different ways of determining how cognitive or affective one's attitude is (See et al., 2008). The first method for measuring one's cognitive or affective attitudinal bases has been called the *structural* or *objective* method. Objective measures of affective versus cognitive bases consider the overall discrepancy between the affective and cognitive valences underlying the attitude and the global valence of the attitude itself (e.g. Crites et al., 1994). The second method for measuring attitudinal bases is called the *meta-bases* or *subjective* method and relies on a self-report of whether a person believes that his or her

² Nevertheless, we will also examine the independent contribution of the affective versus cognitive bases of attitudes on spontaneous and requested advocacy controlling for the other.

attitude is determined more by emotion toward the attitude object or by cognition (See et al., 2008). The distinction between structural/objective and meta/subjective methods of assessing the affective versus cognitive bases of attitudes is not unique to this attitude dimension. Indeed, most attitude strength variables have been assessed with these different methods as well (e.g., how much information can a person list about an attitude object [structural/objective] versus how much does a person think he or she knows about the object [meta/subjective]; for reviews see, See, Fabrigar, & Petty, 2017; Wegener, Downing, Krosnick, & Petty, 1995). Importantly, some recent affective and cognitive bases research has examined the implications of this structural/objective versus meta/subjective bases distinction.

First, prior work has shown that subjective measures of attitudinal bases are more predictive of deliberative than impulsive responses, whereas objective measures show the opposite pattern of prediction (See et al., 2008, Study 4). The current research relies on a deliberative measure of advocacy—one's stated intentions to advocate either spontaneously or on request, and thus subjective measures of affective versus cognitive bases would be expected to predict better than objective ones.

Second, some recent work has connected subjective bases with the *motivation* to act, whereas objective bases have been connected to the *ability* to act (See, Fabrigar, & Petty, 2013). For example, subjective bases have predicted interest in information processing (motivation), whereas objective measures have predicted processing efficiency (ability). The current research deals more with the motivation to advocate rather than the ability to do so. Thus, once again, subjective measures would be expected to predict better than objective ones.

In sum, in accord with the aforementioned research on subjective and objective measures of the affective versus cognitive bases of attitudes, for the present research, we elected to use the subjective measure of the affective versus cognitive bases of attitudes in all of our studies (i.e., because our advocacy measures required some deliberation and relies more on motivation than ability). Nonetheless, in Study 2, we will investigate the ability of structural/objective measures to produce the same results.

2. Hypotheses

The goal of the present research is to determine whether people would report different intentions to advocate their attitude in response to an explicit request versus spontaneously as a function of their perceptions of the affective versus cognitive bases of their attitudes. As explained earlier, when considering requested advocacy, we hypothesized that the more the attitude is perceived to be based on cognition (rather than affect), the greater the reported intention to advocate will be. On the other hand, when considering spontaneous advocacy, we hypothesized that the more the attitude is perceived to be based on affect (rather than cognition), the greater the reported intention to advocate will be.

To address these hypotheses, the current research reports six studies. In four studies the perceived affective versus cognitive bases of attitudes were measured, and in two studies the perceived affective versus cognitive bases of attitudes were experimentally manipulated. Variations of the same measures of intentions to engage in spontaneous and requested advocacy (tailored for each study's specific attitude object) are used in each study.

3. Studies 1a and 1b

Studies 1a and 1b used correlational designs to provide initial evidence that people's perceived affective and cognitive bases predict different types of advocacy intentions (i.e., spontaneous vs. requested). That is, we predicted that the more people perceive their attitude to be based on affect (vs. cognition), the more they would report intentions to spontaneously advocate. On the other hand, the more individuals

perceive their attitude to be based on cognition (vs. affect), the more they would report intentions to advocate in response to a request.

In these studies, as well as the subsequent ones, we report all measures, manipulations, and exclusions, either in the present text or the Online Appendix.

3.1. Method

3.1.1. Participants

The participants in both studies 1a and 1b were students at Ohio State University enrolled in an introductory psychology class. The aim in each study was to have at least 100 participants per study, so 130 available slots were posted for signups.³ Resultantly, for Study 1a, a total of 115 participants (female = 72) attended the research session. For Study 1b, 113 participants (female = 78) attended the research session. Both studies were conducted in a computer lab with one to ten participants at a time. Partitions divided all of the stations to ensure privacy of response.

3.1.2. Procedure

After participants provided their consent, they responded to a variety of survey questions assessing their attitude toward the topic of gun control (Study 1a) or recycling (Study 1b). Of critical interest to the proposed hypotheses, we measured participants' perceived affective and cognitive bases for their attitudes toward the focal topic. However, participants also reported on a variety of other commonly studied attitude strength variables (i.e., attitude certainty, correctness, clarity, importance, subjective ambivalence, and perceived knowledge; Petty & Krosnick, 1995). For a full account of these measures, see the Online Appendix. These attitude strength indicators were measured to examine whether they might account for any effects observed for affective versus cognitive bases. For example, it could be that attitudes perceived to be based on cognition are higher in perceived knowledge than those based on affect, and this accounts for any effects observed. The presentation of all predictor measures was randomized to control for possible order effects. Immediately after completing the predictor measures, all participants reported their advocacy intentions. As with the predictor measures, presentation of these measures was randomized. Upon completion of the study, participants were debriefed, thanked, and excused.

3.1.3. Predictor variables

To assess participants' perceived affective bases of their attitudes toward the object, they responded to the following question: "To what extent is your attitude toward gun control [recycling] based on your feelings and emotions?" To assess participants' perceived cognitive bases, they responded to the following question: "To what extent is your attitude toward gun control [recycling] based on your thoughts and reasons?" These measures were taken directly from prior research (i.e., See et al., 2008). Responses were given on 7-point scales anchored at "Not at all based" to "Very much based." In line with prior work on the perceived affective and cognitive bases of attitudes (e.g., See et al., 2008, 2013), for the primary analysis, an affective-cognitive difference score was created. That is, responses to the perceived affective and cognitive measures were z-scored and then subtracted from one another. This relative score provides an index of whether the participant's perceived bases were relatively more affective or relatively more cognitive.

3.1.4. Dependent variables

To measure participants' attitudinal advocacy intentions,

³ Without a priori expectations for the size of the effect, these sample sizes were based on the sample sizes of previous research examining perceived affect and cognition (e.g., See et al., 2008; See et al., 2013).

participants responded to three requested advocacy and three spontaneous advocacy likelihood questions.⁴ The requested advocacy questions included: (1) “How likely would you be to provide arguments supporting your opinion on gun control [recycling] to a fellow student if the student asked for your opinion on the matter?”; (2) “If you were in a group discussion on gun control [recycling], how likely would you be to speak up and provide supportive arguments for your opinion on it if others asked for your opinion on the matter?” and (3) “If you had a magazine article that provided strong arguments supporting your opinion on gun control [recycling], how likely would you be to recommend or lend that magazine to a friend if your friend started a conversation on the topic and asked for your opinion?” For spontaneous advocacy, they responded to the same basic questions; however, the ending was tailored to apply to spontaneous advocacy specifically. That is, each question ended with “...you were unprompted, providing them [the magazine article] of your own accord.” Responses to all items were given on 7-point scales anchored at “Not at all likely” to “Very likely” and were averaged to form a separate index for each type of advocacy. Additionally, in these studies and the next ones, we included some other non-advocacy related behavioral intention measures for exploratory purposes; however, their results are neither highly consistent across studies nor germane to the advocacy hypotheses. Nonetheless, for details on their analyses, see the Online Appendix.

3.2. Results

3.2.1. Relationships between predictor and dependent measures

As a first step in examining the relationship between our predictor (i.e., perceived affect and cognition) and dependent measures (i.e., spontaneous and requested advocacy intentions), we conducted Pearson's correlations across the aggregate sample to examine the relationships among these variables.⁵ First, we replicate prior work (e.g., See et al., 2008) showing either a small or no correlation between individuals' perceived affective and cognitive ratings $r(227) = 0.104$, $p = .117$. With our dependent measures, we find a positive correlation between requested and spontaneous advocacy intentions, $r(227) = 0.361$, $p < .001$.

Running similar analyses as an initial test of our hypotheses, we find that perceived affect is positively correlated with spontaneous advocacy intentions, $r(227) = 0.260$, $p < .001$, but not with requested advocacy, $r(227) = 0.073$, $p = .272$. In contrast, we find that perceived cognition is positively correlated with requested advocacy intentions, $r(227) = 0.379$, $p < .001$, but is not related to spontaneous advocacy, $r(227) = 0.069$, $p = .302$.

3.2.2. Relative affective vs. cognitive bases on advocacy

To conduct a more sophisticated analysis of our predictions, a 3-variable model was constructed which included the following factors predicting the extent of advocacy: *study/topic* (i.e. 1a-gun control vs. 1b-recycling) \times relatively affective vs. cognitive *basis* of attitude (i.e. the continuous difference score) \times the within-subject *type* of advocacy (i.e. spontaneous vs. requested). This analysis was done using SPSS's General Estimating Equations (Bolger & Laurenceau, 2013) for mixed-design analyses, which accounts for the non-independence of

⁴ Although some prior advocacy work has used the word-count of mandatory essays to determine the extent of advocacy (e.g., Gal & Rucker, 2010), the majority of studies examining attitudinal advocacy has used advocacy intentions as the key dependent measure (e.g., Cheatham & Tormala, 2015, 2017; Krosnick, Boninger, Chuang, Berent, & Carnot, 1993; Visser, Krosnick, & Simmons, 2003). In capturing advocacy in the lab, such measures prove efficient and reliable, and thus, we followed previous work and likewise used intentions as our outcome measures. Moreover, intentions are the single best predictor of behavior (Ajzen & Fishbein, 1977).

⁵ In conducting overall correlations, we are unable to control for the potential effect of study topic (gun control vs. recycling) on these relationships. However, running these analyses in each study independently produces very similar results (see the Online Appendix).

observations in within-subjects tests, using an exchangeable working correlation matrix.

With the aforementioned factors in the model (i.e. study, basis, and type), there was a significant main effect for the type of advocacy such that participants reported a greater willingness to engage in requested ($M = 5.3$; $SE = 0.07$) versus spontaneous ($M = 3.4$; $SE = 0.10$) advocacy, $b = 0.946$, Wald's $\chi^2(1) = 386.3$, $p < .001$. However, this main effect of advocacy type (i.e. spontaneous versus requested) was qualified by a significant interaction with the perceived basis of the attitude, $b = -0.17$, Wald's $\chi^2(1) = 19.3$, $p < .001$. To examine the interaction between perceived attitudinal base and advocacy type, spontaneous and requested advocacy were individually and separately dummy coded to determine the relative effect of participants' perceived attitude bases on each type of advocacy (Bolger & Laurenceau, 2013). These simple slope analyses revealed that the more the attitude is perceived to be based on cognition relative to affect, the more one intends to engage in requested advocacy, $b = -0.19$, Wald's $\chi^2(1) = 10.6$, $p < .001$. On the other hand, when looking at the simple slope for spontaneous advocacy, the more the attitude is perceived to be based on affect relative to cognition, the more one intends to engage in spontaneous advocacy, $b = 0.17$, Wald's $\chi^2(1) = 4.4$, $p = .036$.⁶ Additionally, there was also a significant interaction between the advocacy type and study, suggesting that people were more likely to advocate in general when the topic was about recycling, $b = -0.19$, Wald's $\chi^2(1) = 10.6$, $p < .001$. However, the 3-way interaction between study, advocacy type, and attitudinal base proved non-significant ($p = .732$).⁷

When controlling for the measured attitude strength variables other than perceived basis (e.g., ambivalence) whether individually or jointly, the interaction between meta-bases and advocacy type, along with the simple slopes for each type of advocacy, remained significant (see Online Appendix). This suggests that the other attitude strength indicators did not account for the effects of perceived affective versus cognitive attitude bases on spontaneous versus requested advocacy.

3.3. Replication Study 1c

To test whether our key results would replicate in a larger and separate sample, and to examine whether order of the spontaneous versus requested advocacy questions mattered (a concern raised during the initial review process), we recruited 400 participants from Amazon's Mechanical Turk and retained 377 for analysis after exclusions (female = 190).⁸ It could be that seeing a requested advocacy question first versus a spontaneous advocacy question first could inflate responses to the complementary advocacy type through a possible comparison process. Furthermore, in the prior studies, both advocacy questions were presented on the same response page, and it was therefore possible that participants read both questions before answering either and this comparison process was critical for the results. Thus, in the current study, participants responded to each advocacy

⁶ As an alternative analysis strategy, rather than treating perceived affect and cognition as a relative difference score, we can treat them as independent predictors in a model as follows: *study* (i.e. gun control vs. recycling) \times perceived affective *basis* of attitude (i.e. low to high) \times perceived cognitive *basis* of attitude (i.e. low to high). Nonetheless, conducting the analysis in this manner yields the same results. That is, when examining requested advocacy, only perceived cognitive bases (and neither perceived affect nor their interaction) emerge as a significant predictor, $b = 0.42$ ($SE = 0.07$), $t(220) = 6.22$, $p < .001$. In contrast, when examining spontaneous advocacy, only perceived affective bases (and neither perceived cognitive nor their interaction) emerge as a significant predictor, $b = 0.36$ ($SE = 0.11$), $t(220) = 3.37$, $p < .001$.

⁷ Although the non-significant interaction with study topic indicates that there is no statistical difference in the pattern of effects between Studies 1a and 1b, independent study analyses replicate the collapsed pattern (see the Online Appendix).

⁸ That is, 23 participants were excluded either because they had duplicate IP addresses (i.e., a participant took the study multiple times) or didn't answer all the predictor/outcome measures. However, the following results remain significant if these participants are included.

question separately. Also, for this study, participants reported their attitudes toward recycling before reporting the perceived bases for their attitudes as well as their advocacy intentions. To shorten the study for the MTurk sample, participants only responded to two dependent measures, one for each type of advocacy intention on the likelihood of convincing a friend. These two questions were presented on alternate pages and varied in whether the spontaneous or requested version came first. Other than these variations, the replication study was similar to Study 1b.

Using a similar method of analysis as the prior studies (Bolger & Laurenceau, 2013), we constructed a three-factor model: *basis of attitude* (i.e. the continuous difference between affective versus cognitive attitude basis score) \times *type of advocacy* (i.e. spontaneous vs. requested) \times *order of presentation* (i.e., spontaneous vs. requested question first).⁹ To begin, we replicate the main effect of participants reporting greater requested ($M = 5.5$; $SE = 0.07$) versus spontaneous ($M = 4.0$; $SE = 0.09$) advocacy intentions, $b = 0.715$, Wald's $\chi^2(1) = 255.1$, $p < .001$. Additionally, there is also a marginal main effect for question order, where seeing a spontaneous ($M = 4.8$; $SE = 0.09$) versus a requested question first ($M = 4.6$; $SE = 0.10$) led to slightly greater advocacy intentions overall, $b = -0.12$, Wald's $\chi^2(1) = 3.4$, $p = .067$.¹⁰ Of most importance, we replicate the interaction between advocacy type and the basis of one's attitude also observed in Studies 1a and b, $b = -0.243$, Wald's $\chi^2(1) = 42.3$, $p < .001$. This two way interaction is not further qualified by the three way interaction with order suggesting that the effects observed in the prior studies occur regardless of which question comes first and are not dependent on participants having access to both questions simultaneously, $b = 0.002$, Wald's $\chi^2(1) = 0.003$, $p = .960$.

Again using the same dummy coding procedure from Studies 1a and 1b, we find that the more participants perceived their attitudes to be based on cognition relative to affect, the more they intended to engage in requested advocacy, $b = -0.17$, Wald's $\chi^2(1) = 6.0$, $p = .014$. In contrast, the more participants' attitudes were perceived to be based on affect relative to cognition, the more they intended to engage in spontaneous advocacy, $b = 0.32$, Wald's $\chi^2(1) = 18.5$, $p < .001$. Importantly, no other interactions emerged (p 's > 0.9).

3.3.1. Summary

Together, these measured studies (1a, 1b, and 1c) demonstrate that with requested advocacy, those with more cognitively perceived attitudes report greater intentions to advocate. However, when examining spontaneous advocacy, those with more affectively perceived attitudes report greater intentions to advocate. Finally, these results held across two divergent attitude issues—gun control and recycling—as well as two separate samples—undergraduates and Amazon's Mechanical Turk—while controlling for several relevant attitude strength properties.

4. Study 2

Although our three correlational studies provided initial evidence that one's perceived bases of affect and cognition differentially predict one's requested and spontaneous advocacy intentions, we do not know if the structural bases of affect and cognition (Crites et al., 1994) are similarly useful. As noted earlier, because the affective and cognitive meta-bases of one's attitude are associated with deliberative judgments

and the motivation to act, whereas the structural bases are associated with impulsive judgments and the ability to act (e.g., See et al., 2013), we expected that only the meta-bases would predict their congruous advocacy intentions. Nonetheless, the differential ability of these measures to predict advocacy was examined in Study 2.

4.1. Method

4.1.1. Participants

Participants were Ohio State University introductory psychology students. This time we wanted a sample size roughly double the individual studies 1a and 1b from before (since these studies were collapsed in the analysis). As a result, 230 signup slots were posted, resulting in 205 participants who were actually collected (female = 130).

4.1.2. Procedure

The methodology was nearly identical to Studies 1a and 1b with two minor changes. First, we examined attitudes and advocacy intentions toward the legalization of gay marriage.¹¹ Second, in addition to participants' affective and cognitive meta-bases toward this topic as in our first studies, we also collected participants' affective and cognitive structural bases (Crites et al., 1994). Although participants always responded with their attitudes toward gay marriage first, the order in which they answered the dependent measures (i.e., advocacy intentions) and predictor measures (i.e., affective and cognitive meta-bases along with their structural bases) was randomly determined for each participant. Furthermore, the order in which participants answered the separate perceived and structural predictor measures was also randomly determined. Since other attitude strength variables did not contribute to the subjective bases effects observed in Studies 1a and 1b, they were not included in this study.

4.1.3. Predictor variables

Participants responded to the same single-item perceived affective and single-item perceived cognitive basis measures for their attitude as in the three prior studies, which were again standardized and subtracted from one another to provide the relative extent that someone perceived his or her attitude to be based more on affect versus cognition.

To measure the structural basis of participants' attitudes, they first responded to eight, 7-point bipolar scales aimed at tapping into the extent to which their attitude was based on affect (e.g., Delighted – Sad; Tense – Calm). To measure the structural cognitive basis of their attitude, participants responded to seven, 7-point bipolar scales regarding traits of the attitude object (e.g., Useless – Useful; Wise – Foolish). These measures were then independently averaged to form composites of one's overall affect and cognition underlying their attitude (Crites et al., 1994).

In some previous studies, structural bases have been computed across a number of attitude objects to form the overall index of the extent to which people structurally based their attitudes on affect versus cognition overall (e.g., See et al., 2008). However, the current program of research is interested in the specific attitude object (i.e., marriage equality) and how the structural affect or cognition underlying that particular attitude could influence the likelihood of advocacy on its behalf. Thus, to compute an index of the relative extent to which a person's attitude toward marriage equality was based on affect or cognition, a procedure from Crites et al. (1994) was used.

Because structural affect and cognition are concerned with the extent to which the valence of participants' affect and/or cognition align with the global valence of one's attitude, we took the extremity of the attitude (i.e., its distance from the midpoint in a particular direction)

⁹ For alternate analysis strategies, see the Online Appendix. Notably, these other approaches replicate the patterns and significance reported here.

¹⁰ This effect is driven largely by responses to requested advocacy intentions: Those seeing a spontaneous ($M = 5.6$; $SD = 1.2$) versus requested advocacy question first ($M = 5.3$; $SD = 1.6$) reported greater requested advocacy intentions, $t(375) = 2.3$, $p = .020$. There was no significant effect of question order on spontaneous intentions (spontaneous first: $M = 4.09$ vs. requested first: $M = 3.94$, $p = .399$), and there was no *order* \times *type of advocacy* interaction, $b = -0.05$, Wald's $\chi^2(1) = 1.2$, $p = .272$.

¹¹ These data were collected before the June 2015 U.S. Supreme Court ruling that legalized gay marriage throughout the U.S.

and compared it to the extremity of the participant's reported affect and cognition in a particular direction (i.e., discrepancies from the midpoint can be in a positive or negative direction). Thus, we averaged participants' responses to the three attitude measures (7-point scales: Negative – Positive; Bad – Good; Dislike – Like) and then created two independent discrepancy scores for each person. Specifically, we subtracted the extremity of one's affect [cognition] in a particular direction from their overall attitude extremity in a particular direction, and then used the absolute value of that figure as in Crites et al. (1994) to determine the extent to which a person's affective and cognitive responses aligned with their attitude (i.e., larger numbers indicating a greater discrepancy). From this, we then subtracted the affective discrepancy score from the cognitive discrepancy score to form an overall measure of the extent to which people's attitudes align relatively more with their affective or cognitive reports.

4.1.4. Dependent variables

In line with the Studies 1a and b, intentions to engage in requested and spontaneous advocacy were collected with the same six measures. That is, for the intention to engage in requested advocacy in support of one's stance on gay marriage, participants indicated their likelihood of providing arguments supporting their position to a friend, providing arguments in a group discussion, and passing along an online editorial with supportive arguments, if they were prompted to do so by someone else. For spontaneous advocacy, the same situations and behaviors were presented but participants rated their likelihood of enacting them spontaneously, without being prompted by another person.

4.2. Results¹²

4.2.1. Relation between subjective and objective bases measures

Our first analysis was simply to look at the relationship between the subjective (meta-bases) and objective (structural-bases) measures of affective versus cognitive attitudinal consistency. Prior research comparing these two measures across several attitude objects has shown either minimal or no statistically significant relationship between them. Consistent with that research, in the current work the measures were only slightly correlated, $r(203) = 0.169$, $p = .015$.

4.2.2. Relative affective vs. cognitive meta-bases on advocacy

As with the prior studies, SPSS's General Estimating Equations (Bolger & Laurenceau, 2013) were used to analyze the data. We used a two variable design, whereby the between-subjects continuous variable of perceived affective-cognitive basis of the attitude was crossed with the within-subject type of advocacy intention (i.e. spontaneous vs. requested). First, we replicated the significant main effect for the type of advocacy such that participants reported greater intentions for requested ($M = 5.3$; $SE = 0.11$) versus spontaneous ($M = 3.7$; $SE = 0.13$) advocacy, $b = 0.821$, Wald's $\chi^2(1) = 314.6$, $p < .001$. However, this main effect of advocacy type (i.e. spontaneous versus requested) was qualified by a significant interaction with perceived basis of the attitude, $b = -0.26$, Wald's $\chi^2(1) = 40.1$, $p < .001$ ¹³.

To decompose the advocacy type \times perceived basis of the attitude interaction, the same dummy coding scheme from the prior studies was employed (Bolger & Laurenceau, 2013). These simple slope analyses revealed that the more the attitude is perceived to be based on cognition relative to affect, the more one intends to engage in requested advocacy, $b = -0.25$, Wald's $\chi^2(1) = 12.1$, $p < .001$. On the other hand, the more the attitude is perceived to be based on affect relative to

cognition, the more one reports willingness to engage in spontaneous advocacy, $b = 0.27$, Wald's $\chi^2(1) = 6.6$, $p = .010$. Controlling for structural basis keeps these relationships intact.

4.2.3. Relative affective vs. cognitive structural-bases on advocacy

Using the same analysis strategy as above, we submitted the between-subjects factor of structural affective-cognitive basis of the attitude to a two-variable analysis with the within-subject type of advocacy intention (i.e., spontaneous vs. requested). From this analysis, we replicated the main effect of advocacy type, whereby people report greater intentions for requested advocacy, $b = 0.815$, Wald's $\chi^2(1) = 256.01$, $p < .001$; however, this main effect was not qualified by a significant interaction, $b = -0.12$, Wald's $\chi^2(1) = 1.7$, $p = .190$. Nonetheless, the pattern of results does parallel those of the meta-bases measures. Finally, there was no main effect for the affective-cognitive structural measure ($p = .750$) and controlling for meta-bases does not influence the non-significance of these effects.

4.3. Summary

This study mirrored the findings from our first three studies with a new topic. That is, when attitudes were perceived to be more cognitively rather than affectively based, people reported greater willingness to engage in requested advocacy. However, as attitudes were perceived to be more affectively rather than cognitively based, people reported greater intentions to spontaneously advocate. This pattern was similar for the structural bases of one's attitude; however, the outcome was not reliable, indicating that these effects are best captured with the subjective measures of attitudinal bases.

5. Studies 3a & 3b

The goal of Studies 3a and 3b was to provide a conceptual replication of the results of the previous four studies using an experimental design. That is, instead of using people's measured reports for their perceived affective and cognitive bases, the perceived affective and cognitive bases of their attitudes were manipulated through false feedback. Although our first study showed the effects to hold after controlling for plausibly influential attitude strength variables, it is nonetheless possible that other unmeasured variables we didn't consider could be exerting an effect. Thus, to isolate the influence of perceptions of affect and cognition on one's willingness to advocate, an experimental manipulation was required. Furthermore, although the structural bases of attitudes have been manipulated before using several different methods (e.g., Crites et al., 1994; Edwards & Von Hippel, 1995; Fabrigar & Petty, 1999; Millar & Millar, 1990), there has not yet been a manipulation of one's perceived affective versus cognitive bases. The following study then provides a potentially useful method through which researchers can manipulate these perceptions.

In both studies, participants filled out survey items ostensibly determining whether or not their attitudes toward the topic (i.e. recycling) were based on affect or cognition, and they subsequently received "computer feedback" which informed them of the basis of their attitudes.

As with the prior studies, our hypotheses remained constant: when reporting intentions for requested advocacy, those led to believe their attitudes were based on cognition (vs. affect) should report a higher likelihood of advocating. On the other hand, when reporting intentions for spontaneous advocacy, those led to believe their attitudes toward recycling were based on affect (vs. cognition) should report a higher likelihood of advocating.

5.1. Methods

5.1.1. Participants

Study 3a was conducted first on Ohio State introductory psychology

¹² For the correlations between predictor and dependent measures (as reported for Studies 1a & 1b), see the Online Appendix. Overall, the critical relationships between variables mirror those seen in the prior studies.

¹³ Running the analysis with perceived affective and perceived cognitive basis as independent predictors (rather than as a single difference measure) produces the same results (see the Online Appendix).

students at the end of their Spring Semester. We used a time-based stopping rule with the assumption that we would attain at least 25 participants per condition (50 total) by the end of the semester. We collected a total of 56 participants randomly assigned to one of two groups. However, three participants indicated that English was not their first language. Deleting these participants brought the total to 53 (female = 22).¹⁴

Following study 3a, Study 3b was conducted as a higher-powered replication experiment.¹⁵ Using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) to perform an a priori power analysis of the critical interaction in Study 3a, results indicate a two-tailed test ($\alpha = 0.05$) at 0.95 power would require a total of 172 participants. As such, we recruited 100 participants per cell (i.e., 200 total or $4 \times$ that of Study 3a) with the anticipation that we would have to exclude certain participants (e.g., based on native English speaking ability). Moreover, the sample for Study 3b was drawn from Amazon's Mechanical Turk (using the platform TurkPrime; Litman, Robinson, & Abberbock, 2017) to enhance generalizability beyond the college student samples in most of the prior studies. After pre-registered exclusion criteria, we were left with a total sample of 177 (female = 78). Aggregating the samples of Study 3a and 3b, then, we have a combined sample of 230 participants.¹⁶

5.1.2. Procedure

Studies 3a and 3b used nearly identical procedures, so they are described together. Upon giving their informed consent, participants provided their attitudes toward recycling before learning that they would be responding to questions which ostensibly informed them whether their attitude toward recycling “was based more on emotions or based more on thoughts.” Again, rather than measuring their perceived affective and cognitive bases for their attitude, this experiment manipulated that perception through false feedback. After receiving this false feedback, participants responded to the same advocacy items used in Studies 1a, 1b, and 2, a manipulation check question, and some demographics measures. When finished with the study, participants were debriefed about the deception. For a complete outline of the experimental design, along with the instruments presented to participants, see the Online Appendix.

5.1.3. Independent variable: perceived affective vs. cognitive basis

The induction was designed to manipulate differential perceptions of the affective versus cognitive basis of one's attitude and consisted of several steps. First, participants responded to the Need for Affect (Appel, Gnambs, & Maio, 2012) and Need for Cognition (Cacioppo & Petty, 1982) scales. For the affective condition, they responded to the Need for Affect scale first, whereas for the cognitive condition, they responded to the Need for Cognition scale first.¹⁷ Next, they responded to questions that led them to focus

¹⁴ Because the effects of the manipulation are highly dependent on subtle changes in wording of the questions as well as the text-based false feedback, we did not include non-native English speakers.

¹⁵ The hypotheses, sample size, methods, and data analysis for Study 3b were pre-registered at Open Science Framework (<https://osf.io/gS5yw/>) before data collection began.

¹⁶ Across both samples, we excluded participants based on pre-registered exclusions: those who were not native English speakers (Study 3a: $n = 3$; Study 3b: $n = 8$) as well as those with negative attitudes toward recycling (i.e., those reporting attitudes lower than the mid-point; Study 3a: $n = 0$; Study 3b: $n = 6$). Additionally, we necessarily excluded those who did not answer all of the primary dependent variables (Study 3a: $n = 0$; Study 3b: $n = 5$). Finally, because Study 3b was conducted on MTurk (which is a less naive population; Chandler, Mueller, & Paolacci, 2014), we included a measure of trust in regards to our false feedback, an integral component of the manipulation. We excluded participants who didn't believe the feedback at all (i.e., those who reported a 1 on a 1 to 7 scale; “Did not believe at all” to “Believed entirely;” $n = 12$). Due to overlap in these criteria, a total of 26 participants were excluded from analysis (cognitive condition: $n = 12$; affective condition: $n = 14$). Notably, the primary results remain significant if these participants are included (see Online Appendix).

¹⁷ Unfortunately, because of a technical malfunction, only about half of the participants' answers to these measures in Study 3a were recorded.

on the affect or the cognitions related to their attitude toward recycling. That is, in the affective condition, participants responded to five semantic differential scales anchored with affective words (e.g. sad vs. happy; angry vs. relaxed; Crites et al., 1994). Furthermore, participants also responded to questions with anchors that perceptually inflated the amount of time they relied on their emotions when thinking about recycling. For example, a question like, “When I reflect on recycling, I _____ feel emotional when considering my stance” was anchored with “Sometimes” and “Always.” The intention here was to make salient that there were at least sometimes the participants had relied on their emotions when considering recycling (manipulations adapted from, e.g., Chaiken & Baldwin, 1981; Salancik & Conway, 1975).

For the cognitive condition, the semantic differential scales used cognitive anchors (e.g. harmful vs. beneficial; useless vs. useful). As well, the time spent thinking about recycling was also changed to reflect cognitive rather than emotional activity (e.g., “With recycling, I _____ use logic when considering my stance;” again anchored at “Sometimes” and “Always”).

Once participants had completed their responses, they waited as the computer ostensibly calculated their scores and reported the following message:

“This survey indicates that you primarily rely on your emotions [thoughts] to guide your opinion and attitude toward recycling. In general: “Those who tend to base their attitudes toward an object on their emotions, [thoughts] often use their feelings [rationale] about the topic to inform their opinion. Emotions [Thoughts] are often a very insightful and valid way of determining one's opinion on a topic.”¹⁸

5.1.4. Dependent measures

After receiving the experimental induction, participants answered the six advocacy questions described in the prior studies presented in a random order. Subsequently, they also responded to the two manipulation check questions. The first asked, “To what extent do you believe your attitude toward recycling to be based on your feelings and emotions?” and the second asked, “To what extent do you believe your attitude toward recycling to be based on your thoughts and reasons?” Both 7-point scales were anchored at “Not at all” to “Very much.” As with the prior treatment of these measures, the two were standardized to create a difference score between the two.

5.2. Results¹⁹

5.2.1. Manipulation check

To determine if the manipulation affected participants' beliefs about the basis of their attitudes, scores were computed from participants' own perceptions of their affective and cognitive bases for their attitudes. From this, a 2 (study/sample: 3a- undergrads vs. 3b-MTurk) \times 2 (perceived attitude basis: affective vs. cognitive) model was constructed to test whether the manipulation influenced participants' self-perception of their attitudinal bases. From this, we find a significant difference such that the affective manipulation resulted in perceptions of attitudes being relatively more affectively based ($M = 0.28$; $SD = 1.09$) than participants who received the cognitive manipulation ($M = -0.18$; $SD = 1.27$), $F(1,226) = 10.5$, $p < .001$, $\eta_p^2 = 0.04$. There was no effect of sample ($p = .669$) nor any interaction ($p = .172$).

5.2.2. Advocacy

In analyzing the advocacy measures, we controlled for past recycling behavior with the two specific measures related to this: the

¹⁸ Additionally, fictional citations were provided via a footnote to bolster the believability of the feedback.

¹⁹ For the correlations between measures (i.e., the manipulation checks and the dependent variables), see the Online Appendix. Overall, these relationships mirror what has been shown in the prior studies.

estimated percentage of recyclable items they actually recycled as well as prior recycling events they had participated in (for precise wording, see the Online Appendix). Because people can vary greatly in their actual behavior and experience with recycling, we wanted to control for this to increase the participants' sensitivity to our manipulation. Nonetheless, not controlling for these variables keeps the relationship significant (see Online Appendix for a detailed account of the analysis without controlling for prior experience).

With these analyses, because the predictor variable was no longer a continuous measure ranging from relatively cognitive to relatively affective, and was instead a categorical variable of experimental condition, we submitted the data to a Repeated Measures ANOVA (which also allows for the presentation of effect sizes), whereby type of advocacy (requested vs. spontaneous) served as the within-subjects factor and both study/sample (3a-undergraduates vs. 3b-MTurk) and perceived attitude basis (affective vs. cognitive false feedback) served as the between-subjects factors on advocacy likelihood. First, we replicated the main effect observed in the prior correlational studies whereby participants reported greater intentions for requested ($M = 5.60$; $SD = 1.14$) versus spontaneous ($M = 3.65$; $SD = 1.45$) advocacy, $F(1,224) = 273.7$, $p < .001$, $\eta_p^2 = 0.62$. However, this main effect was qualified by the predicted interaction with manipulated attitude basis, $F(1,224) = 8.9$, $p = .003$, $\eta_p^2 = 0.04$. This two way interaction was not further qualified by a three way interaction with study/sample, $F(1,224) = 1.37$, $p = .243$, $\eta_p^2 = 0.00$.²⁰

To determine the nature of the obtained two-way interaction between advocacy *type* (spontaneous vs. requested) and *basis* of attitudes (affective vs. cognitive) while continuing to control for recycling behaviors, we used the pooled variance from the omnibus ANOVA to test the simple effects (e.g., Howell, 2012). From this, those reporting spontaneous advocacy intentions in the affective condition ($M = 3.80$; $SD = 1.40$) did so to a greater extent than those in the cognitive condition ($M = 3.52$; $SD = 1.49$), $F(1,224) = 4.56$, $p = .034$, $\eta_p^2 = 0.02$. In contrast, when examining intentions for requested advocacy, those in the cognitive condition ($M = 5.71$; $SD = 1.13$) reported greater intentions to do so than those in the affective condition ($M = 5.47$; $SD = 1.15$), $F(1,224) = 4.42$, $p = .037$, $\eta_p^2 = 0.02$.

5.3. Summary

In addition to our correlational data, Studies 3a and 3b have provided experimental evidence replicating the overall predicted advocacy pattern. That is, when examining intentions to advocate upon request, increasing perceptions of a cognitive rather than an affective attitudinal basis leads to greater intentions to advocate. In contrast, when examining intentions to advocate spontaneously, increasing perceptions of an affective rather than a cognitive attitudinal basis leads to greater intentions to advocate.

6. General discussion

From potential voters spontaneously persuading others to support their preferred candidate to consumers adamantly recommending products when asked, advocacy attempts are a pervasive part of the human experience. These expressions of opinions, then, whether opposing someone else's stance or arguing for more extremity in a view already held, can shape the way we perceive and interact with the world around us. However, social psychology, and specifically, the persuasion and attitude change literature, has not focused much on the source of advocacy and the factors that contribute to a decision to advocate. The current research aimed to contribute to addressing this lapse. In

²⁰ Although the non-significant interaction with study topic entails there is no statistical difference in the pattern of effects between Studies 3a and 3b, individual study analyses replicate the collapsed pattern (see the Online Appendix).

particular, across six studies, we demonstrated that what people believe their attitudes are based on (i.e. primarily affect or cognition) can influence a person's intentions to advocate spontaneously or in response to a request. In the four studies in which these beliefs were measured (1a, 1b, 1c, and 2), we showed that when considering the likelihood one would advocate in response to a request, intentions to do so increased as attitudes were perceived to be based more on cognition than affect. On the other hand, when considering the likelihood one would spontaneously advocate, intentions to do so increased as attitudes were perceived to be based more on affect than cognition. Furthermore, these findings were not accounted for by several prominent attitude strength indicators (e.g., attitudinal importance, ambivalence, etc.; see the Online Appendix) and were exclusive to perceived bases rather than their structural counterparts (Study 2).

In the final studies (Study 3a and 3b) we reported the first manipulation of the perceived affective versus cognitive bases of attitudes and conceptually replicated the results of the measured studies. That is, leading people to believe their attitude was cognitively rather than affectively based produced greater willingness to advocate upon request (but not spontaneously), whereas leading people to believe their attitude was affectively rather than cognitively based produced greater willingness to advocate spontaneously (but not upon request). By successfully manipulating the perceptions of attitude bases, we can be more confident that there are no unintended confounds with the measured bases that account for the results.

In addition to producing a significant interaction between perceived basis of attitude (affective or cognitive) and type of advocacy (spontaneous or requested), all of the studies showed the consistent main effect that people were more likely to report intentions to engage in requested versus spontaneous advocacy, regardless of their attitudinal base. Speculation for this finding is derived from two possibilities related to the perceived effort and risk involved in spontaneous over requested advocacy. First, it could be that requested advocacy is perceived as less effortful than spontaneous advocacy. Always in response to another's initiation, requested (vs. spontaneous) advocacy does not require one to overcome any barriers to the behavior such as concerns about how others might react. For example, if someone first asks for your opinion on a topic, it is presumed that they are interested in what you have to say. Thus, requested advocacy may also be seen as less risky than spontaneous advocacy. Spontaneously approaching someone to advocate does not guarantee the other person's desire to hear your opinion—and in fact, there may be a social stigma associated with such unprompted advocacy. However, all advocacy outcome measures considered the willingness to advocate to friends, family, or peers, in which case, the likelihood of stigma is reduced, though not eliminated (e.g., even friends can tire of one's spontaneous rants).

6.1. Explaining the observed effects

In the introduction to this paper, we provided an initial rationale for the advocacy pattern that emerged. That is, we hypothesized that when advocacy is requested, it prompts an expectation for a thoughtful, cognitive response (Grice, 1975, 2008; Wilson et al., 1984). As such, the advocate may deliberate about the underlying cognitive basis of the attitude, wherein people agree to advocate to the extent they perceive their attitude to have a firm cognitive foundation or reason-based support. For spontaneous advocacy, however, seeking out the opportunity to advocate may depend on the extent to which an attitude is believed to be based on emotion, since people, based on their prior experience with emotions, could have theories (e.g., Ellsworth & Scherer, 2003) that associate emotion with spontaneous activity (e.g., these attitudes come to mind easily; Giner-Sorolla, 2004). Next, we consider further possible explanations for the demonstrated effects that are worthy of future research.

First, there is a plethora of work connecting affect and arousal (for reviews, see Kuppens, Tuerlinckx, Russell, & Barrett, 2013; Reisenzein,

1983). Arousal itself is a physiological state that motivates action (Frijda, 1968; Heilman, 1997), and certain affective states, like anger, are more arousing (e.g. Romani, Grappi, & Dalli, 2012) compared to others, like sadness (e.g. Barrett & Russell, 1998; Davydov, Zech, & Luminet, 2011). Related to advocacy, research in the marketing literature on word of mouth, or the “informal advocacy and/or discussion of goods and services” (Dichter, 1966), has shown that higher arousal and more highly arousing emotions lead to greater opinion sharing overall (Berger, 2011; Siefert et al., 2009), though this research has not distinguished requested opinion sharing from spontaneous sharing.

With regards to the present work, it could be that those who perceive their attitude to be more affectively (vs. cognitively) based become more aroused when thinking about the attitude topic, and this arousal leads them to infer that they would advocate spontaneously. Because high arousal states can drive behavior to reduce the arousal (Cuthbert, Kristeller, Simons, Hodes, & Lang, 1981; Lang, 1968; Raju & Unnava, 2006), those who perceive their attitudes to be affectively based may be more inclined to “seek out” the opportunity to reduce their arousal by advocating about it. In the current research, it may be sufficient for people simply to perceive that they are aroused by topics on which their attitudes are thought to be affectively based (e.g. affective, pro-gun control attitudes could be based on the perception of anger elicited from gun fatalities). In turn, this mere perception of arousal could lead to increased intentions to advocate spontaneously, even if no arousal is present.

On the other hand, those who perceive their attitude to be more cognitively based will not perceive that same underlying arousal and therefore have no increased motivation to advocate spontaneously. Nonetheless, one question that remains is why affectively based attitudes wouldn't simply produce more advocacy regardless of the type. In response, it could be that those with affectively based attitudes don't perceive requested advocacy to be an arousal reducing behavior. That is, arousal drives behavior to return to a state of homeostasis, and because requested advocacy is in response to another person's initiation/prompting, participants may not potentially perceive requested advocacy as “doing enough” to reduce their arousal. However, this explanation is merely speculation and deserves further consideration. In any case, future research would benefit from discerning whether the intention to engage in spontaneous advocacy stems from perceived affect per se or the actual/perceived *arousal* that is linked to the perceived affect. If it is the latter, then attitudes which are actually based or perceived to be based on non-arousing emotions (e.g., sadness) would not be associated with intentions to engage in spontaneous advocacy.

A second explanation for the results not considered yet stems from people's lay perceptions of how underlying affect and cognition should influence advocacy attempts. Research has outlined a number of domains for which one's lay theory—or personal belief for why and how the social world functions—drives his or her perceptions and behavior (e.g. Birnbaum & Croll, 1984; Dweck, Chiu, & Hong, 1995; Molden & Dweck, 2006; Norenzayan, Choi, & Nisbett, 2002). In fact, some research by Akhtar and Wheeler (2016) has shown that inducing people to believe that others' attitudes are malleable (incremental theory) rather than fixed (entity theory) leads to greater intentions to try to persuade others of a belief, presumably, because of the lay theory that the persuasion effort is more worthwhile. Regarding the two types of advocacy examined here, there could be similar lay theories about one's perception of attitudinal bases that influences people's intentions for how they would advocate.

Already, research has shown that people have lay theories for emotions, such as the extent to which an emotion will last (Labroo & Mukhopadhyay, 2009) or one's perceived control over the emotions themselves (Tamir, John, Srivastava, & Gross, 2007). Thus, attitudes presumed to be based on affect may incite a lay perception that emotionally charged beliefs will lead one to spontaneously advocate, whether they actually do or not. Similarly, people may have the lay belief

that possessing reasons or cognitions for one's general evaluation will lead to enacting requested advocacy, our results once more reflecting these lay beliefs. Although neither of these propositions have been tested, future research could conduct a self-perception study (Bem, 1965) to determine if these expectations exist. Specifically, participants could read a vignette in which an individual either advocates spontaneously or in response to a request, and if the lay theories hypothesis is accurate, we would expect participants to attribute greater affective bases to the individual who spontaneously advocated and greater cognitive bases to the one who did so following a request.

6.2. Advances of the current research

Even with the precise mechanism yet to be fully identified, the current research provides some consequential insight for the social psychological literature. First, as noted earlier, the majority of persuasion and attitude change research has not examined when and why a source might deliver an appeal in the first place. Thus, understanding the determinants of when people intend to engage in different forms of advocacy, particularly on such impactful social topics as gun control, marriage equality, and pro-environmental behaviors, could help inform policy or interventions that foster greater advocacy for improving society.

Second, the current research makes a novel distinction between two kinds of advocacy and demonstrates a unique antecedent of each. Recent research by Cheatham and Tormala (2015) has also distinguished between two different types of attitudinal advocacy: sharing intentions and persuasion intentions. Whereas the former regards the simple expression of one's attitude, the latter involves intentionally trying to convince another. In our work, we focused on providing explicit arguments to another person which seems closest to intended persuasion. However, our classification is orthogonal to the prior one and our distinction between spontaneous and requested advocacy could apply to attitudinal sharing as well. Furthermore, our distinction might profitably be applied to attitude-relevant behaviors in general. That is, it could be that people who perceive a more affective than cognitive basis to their attitudes would be more likely to intend spontaneous attitude-relevant behaviors of any sort, and people who perceive a more cognitive than affective basis to their attitudes would be more likely to engage in any attitude-relevant behavior in response to a request. Future research should examine the breadth of applicability of our findings beyond advocacy and the few behavioral measures we included for these exploratory purposes (see, Online Appendix).

Although the current research documented different antecedents for the different types of advocacy, the consequences of the two could differ in terms of real world impact. Specifically, spontaneous behaviors may be the ones that presumably incite more societal change—the type of advocacy that not only inspires progress but leads it. Because requested advocacy requires another person's initiation, it is contingent upon others' interest and prompting. Spontaneous advocacy, on the other hand, is fueled by one's own drive and should, by volume alone, have a more robust effect than requested advocacy. Of course, if those spontaneously advocating are simply blurting out pro-attitudinal but meritless arguments, then this type of advocacy would presumably be less impactful (compared to the more deliberative and cognitively based, requested advocacy). Thus, future research should explore the nature of actual advocacy attempts that follow from attitudes perceived to be based primarily on affect or cognition and that occur spontaneously versus on request.

Finally, this work also expands the nascent literature on people's subjective attitude bases. Prior research on the perceived affective versus cognitive bases of attitudes has only looked at a few outcome measures (e.g., the persuasiveness of externally generated affective versus cognitive appeals; See et al., 2008, Study 2). The present research extends the work on subjective bases to novel attitude objects and outcomes and provides further evidence that subjective measures of

attitude bases can predict outcomes that objective measures do not. By better understanding how the subjective perceptions of our attitudinal bases affect intentions to behave, this research contributes not only to the academic development of the topic but also has the potential to yield new insights into creating programs that promote advocacy. For example, if one were trying to increase pro-environmental behaviors on a campus, one could design appeals that make salient the subjective perceptions of affective bases in order to encourage students' intentions to spontaneously advocate for those behaviors.

6.3. Future directions and conclusions

Because the study of advocacy is a relatively new focus for the literature on attitudes and persuasion, there are many new directions that can be explored in addition to those mentioned already. One suggestion would be to consider how attitudinal bases influence advocacy willingness depending on the valence of the target recipient's attitude. For example, if the recipient has the opposite attitude as the advocate, how would the underlying bases then predict the type of advocacy in which the person engages? In this instance, perceiving your attitude to be based on thoughts and cognitions could make you more inclined to spontaneously advocate, because you believe you have the ability to contest this opposing viewpoint. At the same time, however, if you lack the perceived affect necessary to motivate engaging in debate, perceived cognitive bases alone may not predict the willingness to advocate spontaneously. In which case, one might expect spontaneous advocacy to occur only when someone had both emotions and reasons underlying their belief.

Although the focus of this research was on cases where individuals have more of one type of basis than the other, we can also look at people who are high or low on both bases overall. In exploring this question, we returned to our four correlational studies ($n = 810$), where rather than creating a difference score between the two meta-bases, we summed them. Using this as our predictor variable in the same type of mixed model analyses from earlier, we first find a main effect for one's summed perceived bases, whereby the more emotion and reasons a person perceives to underlie his or her attitude, the greater willingness they report to advocate, regardless of type, $b = 0.371$, Wald's $\chi^2(1) = 39.59$, $p < .001$. This main effect, however, is qualified by a marginal interaction, $b = -0.062$, Wald's $\chi^2(1) = 3.67$, $p = .055$, signaling that the effect of summed bases is slightly stronger for spontaneous advocacy intentions than it is for requested. Nonetheless, the simple slopes for requested and spontaneous advocacy are positive and significant, thus suggesting that the more affect and cognition one perceives to underlie their attitude, the more they intend to advocate. The borderline interaction we find likely speaks to the greater difficulty of engaging in spontaneous (vs. requested) advocacy, where the primary antecedent of affect is bolstered by perceiving cognitions to support one's stance, too.

With our final remarks, we draw attention to the need to better understand when and why people are willing to engage in advocacy. In a world fraught with both social and environmental injustice, the predominant way to incite change is to be willing to convince others that change needs to happen. Understanding the antecedents to intended advocacy, then, allows us to better predict and encourage when that convincing will take place. From the present studies and others, it is evident that the perceived emotions and cognitions underlying one's attitude may be important factors in predicting one's advocacy intentions. Still, there is a lot more to understand, not only with these antecedents, but with potential other antecedents as well. Nevertheless, any advancement in understanding when and why people advocate will not only be beneficial from an academic pursuit but from an applied one as well. For great ideas alone do not incite progress, it is the spreading of those ideas that does.

Acknowledgements

We would like to thank Russ Fazio, Duane Wegener, and Andrew Luttrell for their helpful comments at various stages in this project. Additionally, we would like to thank Dave Kalkstein for his statistical advice and Natalie Ellison and Ellie Montenegro for their dedicated assistance with data collection.

References

- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*(5), 888.
- Akhtar, O., Paunesku, D., & Tormala, Z. L. (2013). Weak > strong: The ironic effect of argument strength on supportive advocacy. *Personality and Social Psychology Bulletin*, *39*(9), 1214–1226.
- Akhtar, O., & Wheeler, S. C. (2016). Belief in the immutability of attitudes both increases and decreases advocacy. *Journal of Personality and Social Psychology*, *111*(4), 475–492.
- Appel, M., Gnambs, T., & Maio, G. R. (2012). A short measure of the need for affect. *Journal of Personality Assessment*, *94*(4), 418–426.
- Barrett, L. F., Mesquita, B., & Gendron, M. (2011). Context in emotion perception. *Current Directions in Psychological Science*, *20*(5), 286–290.
- Barrett, L. F., & Russell, J. A. (1998). Independence and bipolarity in the structure of current affect. *Journal of Personality and Social Psychology*, *74*(4), 967.
- Bem, D. J. (1965). An experimental analysis of self-persuasion. *Journal of Experimental Social Psychology*, *1*(3), 199–218.
- Berger, J. (2011). Arousal increases social transmission of information. *Psychological Science*, *22*(7), 891–893.
- Berkowitz, L. (1988). Frustrations, appraisals, and aversively stimulated aggression. *Aggressive Behavior*, *14*, 3–11.
- Birnbaum, D. W., & Croll, W. L. (1984). The etiology of children's stereotypes about sex differences in emotionality. *Sex Roles*, *10*(9–10), 677–691.
- Bolger, N., & Laurenceau, J. P. (2013). *Intensive longitudinal methods: An introduction to diary and experience sampling research*. Guilford Press.
- Breckler, S. J. (1984). Empirical validation of affect, behaviour, and cognition as distinct components of attitude. *Journal of Personality and Social Psychology*, *47*, 1191–1205.
- Breckler, S. J., & Wiggins, E. C. (1989). Affect versus evaluation in the structure of attitudes. *Journal of Experimental Social Psychology*, *25*, 253–271.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, *42*(1), 116.
- Chaiken, S., & Baldwin, M. W. (1981). Affective-cognitive consistency and the effect of salient behavioral information on the self-perception of attitudes. *Journal of Personality and Social Psychology*, *41*(1), 1.
- Chandler, J., Mueller, P., & Paolacci, G. (2014). Nonnaïveté among Amazon Mechanical Turk workers: Consequences and solutions for behavioral researchers. *Behavior research methods*, *46*(1), 112–130.
- Cheatham, L., & Tormala, Z. L. (2015). Attitude certainty and attitudinal advocacy: The unique roles of clarity and correctness. *Personality and Social Psychology Bulletin*, *41*(11), 1537–1550.
- Cheatham, L. B., & Tormala, Z. L. (2017). The curvilinear relationship between attitude certainty and attitudinal advocacy. *Personality and Social Psychology Bulletin*, *43*(1), 3–16.
- Crites, S. L., Fabrigar, L. R., & Petty, R. E. (1994). Measuring the affective and cognitive properties of attitudes: Conceptual and methodological issues. *Personality and Social Psychology Bulletin*, *20*(6), 619–634.
- Cuthbert, B., Kristeller, J., Simons, R., Hodes, R., & Lang, P. J. (1981). Strategies of arousal control: Biofeedback, meditation, and motivation. *Journal of Experimental Psychology: General*, *110*(4), 518–546.
- Davis, J., & Lamberth, J. (1974). Affective arousal and energization properties of positive and negative stimuli. *Journal of Experimental Psychology*, *103*(2), 196.
- Davydov, D. M., Zech, E., & Luminet, O. (2011). Affective context of sadness and physiological response patterns. *Journal of Psychophysiology*, *25*(2), 67.
- Dichter, E. (1966). How word-of-mouth advertising works. *Harvard Business Review*, *44*(6), 147.
- Dweck, C. S., Chiu, C. Y., & Hong, Y. Y. (1995). Implicit theories and their role in judgments and reactions: A word from two perspectives. *Psychological Inquiry*, *6*(4), 267–285.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Eagly, A. H., Mladinic, A., & Otto, S. (1994). Cognitive and affective bases of attitudes toward social groups and social policies. *Journal of Experimental Social Psychology*, *30*, 113–137.
- Edwards, K., & Von Hippel, W. (1995). Hearts and minds: The priority of affective versus cognitive factors in person perception. *Personality and Social Psychology Bulletin*, *21*(10), 996–1011.
- Ellsworth, P. C., & Scherer, K. R. (2003). Appraisal processes in emotion. *Handbook of Affective Sciences*. Vol. 572. *Handbook of Affective Sciences* (pp. V595–). .
- Fabrigar, L. R., & Petty, R. E. (1999). The role of the affective and cognitive bases of attitudes in susceptibility to affectively and cognitively based persuasion. *Personality and Social Psychology Bulletin*, *25*, 363–381.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160.

- Festinger, L., Riecken, H. W., & Schachter, S. (1956). *When prophecy fails*. Minneapolis, MN US: University of Minnesota Press.
- Frijda, N. H. (1968). Recognition of emotion. In L. Berkowitz (Ed.), *Advances in experimental social psychology*. New York: Academic Press.
- Gal, D., & Rucker, D. D. (2010). When in doubt, shout! Paradoxical influences of doubt on proselytizing. *Psychological Science*, 21(11), 1701–1707.
- Giner-Sorolla, R. (2004). Is affective material in attitudes more accessible than cognitive material? The moderating role of attitude basis. *European Journal of Social Psychology*, 34(6), 761–780.
- Grice, H. P. (2008). Further notes on logic and conversation. In J. E. Adler, L. J. Rips, J. E. Adler, & L. J. Rips (Eds.), *Reasoning: Studies of human inference and its foundations* (pp. 765–773). New York, NY, US: Cambridge University Press.
- Grice, P. (1975). Logic and conversation. In P. Cole, & J. Morgan (Eds.), *Syntax and semantics. 3: Speech acts* (pp. 41–58). New York: Academic Press.
- Haddock, G., Maio, G. R., Arnold, K., & Huskinson, T. (2008). Should persuasion be affective or cognitive? The moderating effects of need for affect and need for cognition. *Personality and Social Psychology Bulletin*, 34, 769–778.
- Heilman, K. H. (1997). The neurobiology of emotional experience. *The neuropsychiatry of limbic and subcortical disorders* (pp. 133–142).
- Howell, D. C. (2012). *Statistical methods for psychology*. Cengage Learning.
- Krosnick, J. A., Boninger, D. S., Chuang, Y. C., Berent, M. K., & Carnot, C. G. (1993). Attitude strength: One construct or many related constructs? *Journal of Personality and Social Psychology*, 65(6), 1132.
- Kuppens, P., Tuerlinckx, F., Russell, J. A., & Barrett, L. F. (2013). The relation between valence and arousal in subjective experience. *Psychological Bulletin*, 139(4), 917–940.
- Labroo, A. A., & Mukhopadhyay, A. (2009). Lay theories of emotion transience and the search for happiness: A fresh perspective on affect regulation. *Journal of Consumer Research*, 36(2), 242–254.
- Lang, P. J. (1968). Fear reduction and fear behavior: Problems in treating a construct. In J. M. Shlien, H. F. Hunt, J. D. Matarazzo, & C. Savage (Eds.), *Research in psychotherapy* (pp. 90–102). Washington, D. C.: American Psychological Association.
- Litman, L., Robinson, J., & Abberbock, T. (2017). TurkPrime.com: A versatile crowdsourcing data acquisition platform for the behavioral sciences. *Behavior Research Methods*, 49(2), 433–442.
- Lombardo, J. P., Libkuman, T. M., & Weiss, R. F. (1972). Energizing effects of disagreement-induced drive. *Journal of Experimental Research in Personality*, 6(2–3), 133–141.
- Mann, J. H. (1959). The relationship between cognitive, affective, and behavioural aspects of racial prejudice. *Journal of Social Psychology*, 49, 223–228.
- Millar, M. G., & Millar, K. U. (1990). Attitude change as a function of attitude type and argument type. *Journal of Personality and Social Psychology*, 59(2), 217.
- Millar, M. G., & Tesser, A. (1986). Effects of affective and cognitive focus on the attitude-behavior relation. *Journal of Personality and Social Psychology*, 51(2), 270.
- Millar, M. G., & Tesser, A. (1989). The effects of affective-cognitive consistency and thought on the attitude-behavior relation. *Journal of Experimental Social Psychology*, 25(2), 189–202.
- Molden, D. C., & Dweck, C. S. (2006). Finding “meaning” in psychology: A lay theories approach to self-regulation, social perception, and social development. *American Psychologist*, 61(3), 192.
- Norenzayan, A., Choi, I., & Nisbett, R. E. (2002). Cultural similarities and differences in social inference: Evidence from behavioral predictions and lay theories of behavior. *Personality and Social Psychology Bulletin*, 28(1), 109–120.
- Olson, J. M., Roese, N. J., & Zanna, M. P. (1996). Expectancies. In E. T. Higgins, & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 211–238). New York: Guilford.
- Ong, D. C., Zaki, J., & Goodman, N. D. (2015). Affective cognition: Exploring lay theories of emotion. *Cognition*, 143, 141–162.
- Ostrom, T. M. (1969). The relationship between the affective, behavioral, and cognitive components of attitude. *Journal of Experimental Social Psychology*, 5(1), 12–30.
- Petty, R. E., & Krosnick, J. A. (Eds.). (1995). *Attitude strength: Antecedents and consequences*. Mahwah, NJ: Erlbaum Associates.
- Petty, R. E., & Wegener, D. T. (1998). Attitude change: Multiple roles for persuasion variables. In D. Gilbert, S. Fiske, & G. Lindzey (Vol. Eds.), *The handbook of social psychology* (4th ed.). Vol. 1. *The handbook of social psychology* (pp. 323–390). New York: McGraw-Hill.
- Raine, A., Dodge, K., Loeber, R., Gatzke-Kopp, L., Lynam, D., Reynolds, C., & Liu, J. (2006). The reactive-proactive aggression questionnaire: Differential correlates of reactive and proactive aggression in adolescent boys. *Aggressive Behavior*, 32(2), 159–171.
- Raju, S., & Unnava, H. R. (2006). The role of arousal in commitment: An explanation for the number of counterarguments. *Journal of Consumer Research*, 33(2), 173–178.
- Reisenzein, R. (1983). The Schachter theory of emotion: Two decades later. *Psychological Bulletin*, 94(2), 239–264.
- Rocklage, M. D., & Fazio, R. H. (2017). Attitude accessibility as a function of emotionality. *Personality and Social Psychology Bulletin*. <http://dx.doi.org/10.1177/0146167217743762> (in press).
- Romani, S., Grappi, S., & Dalli, D. (2012). Emotions that drive consumers away from brands: Measuring negative emotions toward brands and their behavioral effects. *International Journal of Research in Marketing*, 29(1), 55–67.
- Rosenberg, M. J., & Hovland, C. I. (1960). Cognitive, affective, and behavioral components of attitudes. *Attitude organization and change: An analysis of consistency among attitude components. Vol. 3. Attitude organization and change: An analysis of consistency among attitude components* (pp. 1–14).
- Salancik, G. R., & Conway, M. (1975). Attitude inferences from salient and relevant cognitive content about behavior. *Journal of Personality and Social Psychology*, 32(5), 829.
- See, Y. H. M., Fabrigar, L. R., & Petty, R. E. (2013). Affective-cognitive meta-bases versus structural bases of attitudes predict processing interest versus efficiency. *Personality and Social Psychology Bulletin*, 39, 1111–1123.
- See, Y. H. M., Fabrigar, L. R., & Petty, R. E. (2017). *Dual-construct attitude strength perspective (DCASP): Theoretical implications of objective and subjective approaches to measuring the determinants of attitude strength*. (Unpublished manuscript. Columbus, OH).
- See, Y. H. M., Petty, R. E., & Fabrigar, L. R. (2008). Affective and cognitive meta-bases of attitudes: Unique effects on information interest and persuasion. *Journal of Personality and Social Psychology*, 94, 938–955.
- Siefert, C. J., Kothuri, R., Jacobs, D. B., Levine, B., Plummer, J., & Marci, C. D. (2009). Winning the super “buzz” bowl. *Journal of Advertising Research*, 49(3), 293–303.
- Tamir, M., John, O. P., Srivastava, S., & Gross, J. J. (2007). Implicit theories of emotion: Affective and social outcomes across a major life transition. *Journal of Personality and Social Psychology*, 92(4), 731.
- van den Berg, H., Manstead, A. S., van der Pligt, J., & Wigboldus, D. H. (2006). The impact of affective and cognitive focus on attitude formation. *Journal of Experimental Social Psychology*, 42(3), 373–379.
- Verplanken, B., Hofstee, G., & Janssen, H. J. (1998). Accessibility of affective versus cognitive components of attitudes. *European Journal of Social Psychology*, 28(1), 23–35.
- Visser, P. S., Krosnick, J. A., & Simmons, J. P. (2003). Distinguishing the cognitive and behavioral consequences of attitude importance and certainty: A new approach to testing the common-factor hypothesis. *Journal of Experimental Social Psychology*, 39(2), 118–141.
- Wegener, D. T., Downing, J., Krosnick, J. A., & Petty, R. E. (1995). Measures and manipulations of strength related properties of attitudes: Current practice and future directions. In R. E. Petty, & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 455–488). Mahwah, NJ: Erlbaum.
- Wilson, T. D., Dunn, D. S., Bybee, J. A., Hyman, D. B., & Rotondo, J. A. (1984). Effects of analyzing reasons on attitude-behavior consistency. *Journal of Personality and Social Psychology*, 47(1), 5.
- Zanna, M. P., & Rempel, J. K. (1988). In D. Bar-Tal, & A. Kruglanski (Eds.), *Attitudes: A new look at an old concept* (pp. 315–334). New York, NY, US: Cambridge University Press.