Perceived Affect and Cognition as Antecedents to Advocacy

THESIS

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Abstract

In the persuasion and attitude change literature, there has been an extensive amount of research on what makes a message the most influential; however, much less attention has been paid to what makes someone express that message in the first place. Understanding the antecedents to advocacy, then, or the expression of one’s opinion with the potential to influence others’ opinions, is the focus of the present research. Across three studies (two correlational and one experimental), this research examined the effects of two antecedents (perceived affect and perceived cognition underlying one’s attitude) on two types (proactive and reactive) and two methods of (direct and indirect) advocacy. Proactive advocacy is spontaneously deciding to advocate, whereas reactive advocacy is deciding to advocate in response to someone else’s prompting. Direct advocacy is providing specific arguments in your advocacy, whereas indirect advocacy entails merely expressing your opinion. The first two studies used survey methodology to assess the effect of perceived affective and cognitive attitudinal bases on individuals’ intentions to advocate. In the third study, perceived affective and cognitive attitudinal bases were manipulated with false feedback to determine their effects on intentions to advocate. Across all of the studies, the results indicated two primary and consistent patterns such that (1) when people are considering their likelihood of engaging in reactive advocacy, those who perceive their attitude to be more cognitively (vs. affectively) based will report greater intentions to advocate, and (2) when people are considering their likelihood of
engaging in proactive advocacy, those who perceive their attitude to be more affectively (vs. cognitively) based will report greater intentions to advocate. There were no conclusive results for perceived affect and perceived cognition’s effects on the distinction between direct versus indirect advocacy; nonetheless, implications are explored and discussed.
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Chapter 1: Introduction

In order to change people’s opinions, you must have more than just a persuasive message; you must have a person who delivers that message in the first place. Advocacy, or the expression of one’s opinion with the potential to influence others’ opinions, is this act of delivering one’s own view. Be it changes to a societal norm, the election of a particular political candidate, or even the purchasing of a consumer product, all of these outcomes are often the result of people’s espoused beliefs having influence on others’ beliefs (i.e., a result of advocacy). And in an age where social media has given megaphones to virtually everyone, the urgency to understand when and why people engage in advocacy has not been greater. However, for as much as the attitude change literature knows about the factors which make a communication the most influential (e.g., Petty & Wegener, 1998), the field has far less understanding about when and why someone would express their opinion to other people in the first place.

Proactive Versus Reactive Advocacy

In considering advocacy, it first begins with the individual’s decision to express an opinion to other people. That is, before someone decides to verbally express his or her opinion, participate in a rally, or attempt any host of other ways to express one’s view (e.g., wearing an opinion expressing t-shirt) that could potentially result in influencing
others’ attitudes, the individual must first make a decision to act. Sometimes, people will spontaneously decide to engage in advocacy (e.g., volunteering to deliver a speech at a rally). At other times, however, the decision to advocate could be a result of someone else’s prompting (e.g. resulting from another person’s request to hear one’s opinion on the matter). For example, research by Akhtar, Paunesku, and Tormala (2013) measured people’s advocacy intentions in response to first hearing incompetent arguments from fellow supporters. This research showed that when a sample of adults were asked to express their own opinions after hearing others poorly (vs. strongly) defend a supported attitude, they reported greater intentions to engage in advocacy. However, would those who spoke upon being cued be willing to spontaneously advocate their beliefs, too? If you try to convince someone to convert to your own belief after first being asked for your opinion, would you be just as likely to have spontaneously tried to convince that person in the first place?

In parallel to other research, the decision to advocate spontaneously or in reaction to a prompt is similar to work on human aggression which has examined reactive (i.e. acts of aggression in response to provocation) versus proactive aggression (i.e. acts done out of premeditation, or without any external “prompting;” Berkowitz, 1998; Raine et al., 2006; Vitario, Brendgen & Tremblay, 2002). This work has demonstrated that not only do these types of aggression have different consequences (e.g. engaging in proactive aggression increases others’ likelihood for proactive aggression, but reactive aggression does not have this multiplicative effect; Poulin & Bovin, 2000), but they also have different antecedents (e.g. reactive aggression is associated with high neuroticism,
whereas proactive aggression is more associated with high externalizing behaviors; Miller & Lyman, 2006). Of course, there are many differences between advocacy and aggression, most notably whereas somebody else might request your opinion (reactive advocacy) it is rare for someone to request to be the target of your aggression (reactive aggression). Nonetheless, when considering advocacy, one can imagine that like proactive and reactive aggression, the two forms of advocacy could likewise have disparate consequences and antecedents. With respect to consequences, those who only advocate their beliefs in response to another person’s request (reactive advocacy) will likely affect a fewer number of people and subsequently incite less change compared to those who spontaneously go out to try to convince others (proactive advocacy). With the current research, rather than attending to these different outcomes, however, the focus is on the possible different antecedents of proactive (spontaneous) versus reactive (prompted) advocacy.

Beyond this focal distinction, though, there is another potentially important categorization of advocacy: the indirect versus direct nature of the advocacy. For example, although both wearing an attitude expressive t-shirt or personally presenting arguments could both be described as advocacy in that they are forms of opinion expression with the potential to influence others (our working definition of advocacy), the former is a somewhat more subtle or indirect form of advocacy, whereas the latter is much more blatant or direct. In this research, we define direct advocacy as opinion expression that involves the explicit presentation of issue-relevant arguments to another person and indirect advocacy as opinion expression that does not involve the explicit
presentation of arguments. For this project, we do not address the question of whether the individual engaged in opinion expression intends to influence another person (i.e. the goal behind the behavior), because whether intended or not (and people may not always even be aware of their intentions), the action has the potential to influence others.

Some research in the attitude change literature has examined a similar divide between incidental (i.e. “overheard” communication) and intentional persuasion (i.e. directly presenting arguments; Brock & Becker, 1965; Earp et al., 2013; Walster & Festinger, 1962); however, this research has focused on the extent of influence each type of persuasion has on a recipient and not on the antecedents of one form over another. Thus, the current work is unique in exploring when people intend to engage in indirect versus direct advocacy, which is not only interesting for applied instances (e.g. is direct or indirect advocacy more persuasive?), but also, like reactive and proactive advocacy, it is interesting for the different antecedents that may predict them. Therefore, the current research is interested in the antecedents of four types of advocacy: proactive vs. reactive direct advocacy and proactive vs. reactive indirect advocacy. But, before turning to the specifics of the current research, it is useful to address what prior literature suggests about advocacy.

**Prior Research on Advocacy**

As stated earlier, the research on advocacy in the attitude change literature is relatively scant and eclectic. For example, one of the first reports on advocacy came in a classic social psychological study from Festinger, Rieken, and Schacter (1956) who studied the proselytizing behavior of a cult. These researchers found that when doubt was
induced in the members’ beliefs about the cult (namely, their cult leader’s prophecy for the end of the world was wrong), the cult members actually engaged in more proselytism on behalf of the cult—an effect that wasn’t replicated in the lab until 50 years later. Specifically, Gal and Rucker (2010) induced incidental doubt (versus confidence) in participants before asking them to write a persuasive appeal for a preexisting belief. In parallel to the earlier work, those who had been made to feel doubtful regarding this attitude about which they had some initial confidence wrote longer persuasive appeals than those who were given a confidence induction.

A specific form of advocacy that has received some recent attention is that of minority opinion expression (for a review see Rios, 2012). Minority opinion expression is defined as perceiving one holds a belief contrary to the majority and yet still decides to express it regardless (e.g., Morrison, 2011). Although research on this topic hasn’t received much focus until more recently (though one could look to the classic Asch study on conformity as an early example of minority opinion expression; Asch, 1956), a recent review of the literature outlined three primary contexts in which individuals with minority opinions are more likely to express them (Rios, 2012). First, the greater the extent to which minority opinion holders perceive that such advocacy will collectively improve their group’s welfare (regardless of their individual benefit), the more likely they are to report intentions to express their beliefs (e.g., Packer, 2008; 2009; Packer & Chasteen, 2010). Second, the greater the extent to which minority opinion holders possess a motive to maintain a unique and clear sense of self, the greater the likelihood they are to report opinion expression intentions (Imhoff & Erb, 2009; Rios, Wheeler, &
Miller, 2012). And third, the more strongly (compared to weakly) minority opinions were held, the more likely those individuals were to express their beliefs (e.g., Hornsey Majkut, Terry, & McKimmie, 2003; Oshgan, 1996).

In addition to work on situational and attitude relevant factors influencing advocacy, an individual difference measure, Social Vigilantism, describes people who believe it is their “moral obligation” to go out to try to persuade people from their inferior beliefs (Saucier & Webster, 2010; Saucier et al., 2014). In one study, the researchers presented the participants with counterattitudinal messages and then measured the amount of written counter-arguing they did in response (as determined by external raters). The researchers found that those high in Social Vigilantism wrote more counter-arguments than those who were low in this trait. However, despite the smattering of studies thus far listed, attitude change researchers still lack a very complete picture of when and why people advocate. Outside of the attitude change literature, though, a more systematic examination of advocacy has been conducted under the lens of collective action.

Collective action has traditionally been defined as any action that aims to improve the status, power, or influence of an entire group (Tajfel & Turner, 1979; van Zomeren & Iyer, 2009). However, research on collective action “focuses almost exclusively on the social and psychological dimension of protest” (van Zomeren, Postmes & Spears, 2008, p. 505). Whether that is a peaceful march or a disruptive sit-in, collective action researchers have typically studied the antecedents that lead to participation in this group organized advocacy (Blumer, 1939; Davies, 1962; Kelly & Breinlinger, 1995;
Among the key determinants of collective action from the accumulated literature, three of the foremost predictors are perceptions of injustice (i.e. the subjective experience of unequal treatment to one’s group), a politicized identity (i.e. one’s cause is a political struggle for power in the public domain), and perceived efficacy (i.e. whether or not collective action is believed to be effective in achieving one’s goals; van Zomeren et al., 2008).

Notably, though, in all the previous literature on advocacy—even the more robust study of collective action—there has not been a single study making the distinction between reactive and proactive advocacy behaviors, nor that of indirect versus direct attempts. That is, the dependent measures in prior advocacy studies are simply the extent to which one has or would engage in advocacy, failing to consider any possible difference in antecedents between advocating in response to an explicitly presented request (reactive; e.g. Morrison, 2011), versus seeking out that opportunity in the first place (proactive; i.e., the potentially presumed type of advocacy tapped into by general advocacy intention measures). Furthermore prior research has not examined whether there are differing antecedents of direct versus indirect advocacy (i.e. studies treat advocacy-related behaviors, regardless of the directness versus indirectness of the act, as one general, composite score; e.g. Brady, 1994; Klandermans & Oegema, 1987; Swank & Fahs, 2013; Westfall, Boven, Chambers & Judd, 2014). Therefore, the present research is interested in first determining if there are differential antecedents to reactive and
proactive advocacy, and then if these antecedents differ as a function of the indirect versus direct nature of the advocacy method.

**Attitude Components as a Determinant of Advocacy**

Although advocacy itself is a relatively novel area of research, the topic of persuasion (attempting to change an attitude) has a long history of study (for a historical review, see Briñol & Petty, 2012; Fleming, 1967). However, whereas most prior work on persuasion has focused on features of the source, message, or context that render a communication more or less effective in modifying a person’s attitude, work on advocacy aims to understand the factors leading people to possibly influence others by expressing their attitudes. For example, if prior work on persuasion were studying an individual with a positive attitude toward gun control, it would focus on what type of source, message, or context could make that individual have a negative (or more positive) attitude toward gun control. Advocacy research, on the other hand, would examine that same individual to understand the factors which make him or her try to share his or her opinion to possibly convince others to share that positive attitude toward gun control or become more extreme in that positivity. So what, then, leads a person to engage in such advocacy?

Perhaps the most obvious place to look is in the determinants of other attitude-consistent behaviors. That is, prior research has identified a number of variables that make it more likely for people to act in accord with their attitudes (e.g., purchasing attitude congruent products). Since advocacy is a form of acting in accord with one’s attitude, these same variables could plausibly affect advocacy, too. One important set of variables shown to increase the likelihood of attitude-consistent action are variables that
fall under the umbrella of attitude strength (Petty & Krosnick, 1985). Variables that index the strength of an attitude include the degree of one’s knowledge about the attitude object (e.g., Wood, Kallgren & Priesler, 1985; Wood, Rhodes & Biek, 1995), the speed with which that attitude comes to mind (e.g., Fazio, Chen, McDonel & Sherman, 1982; Fazio, 1995), and the certainty with which the attitude is held (e.g., Pomerantz, Chaiken, & Tordesillas, 1995; Rucker et al., 2014). A second set of variables related to attitude-consistent actions involve the structures underlying the attitude itself. The most studied structural variable involves the affect and cognitions determining one’s overall evaluation (Breckler, 1984; Breckler & Wiggins, 1989; Mann, 1959; Rosenberg & Hovland, 1960; Ostrom, 1969).¹

When considering advocacy, it seems likely that most of the aforementioned strength features would produce main effects. That is, the stronger the attitude (e.g., the more knowledge one has, the more important the attitude is to the person, etc.), the more likely one will engage in advocacy regardless of the type—proactive versus reactive or direct versus indirect. Already, there is some evidence suggesting that the more certain one is of an attitude, the more likely one is to advocate on its behalf (Akhtar, Paunesku, & Tormala, 2013; Matthes, Morrison, & Schemer, 2010). However, no prior study has considered the divisions of advocacy described in this research. In this regard, because the affect and cognitions underlying the attitude (compared to other attitude strength features) differ in how they produce the individual’s overall attitude, they may have differential effects on the different types of advocacy. After defining this structural

¹ Research has also established a third basis for attitudes, behavior, but because this basis is not relevant to the current research, it will not be discussed.
feature and briefly reviewing relevant research, hypotheses regarding the impact of affective versus cognitive bases on different kinds of advocacy are presented.

**Affective versus Cognitive Bases of Attitudes and the Impact on Advocacy**

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 pro-environmentalism because seeing forests destroyed makes him/her angry (affective base) or because s/he believes protecting the environment is beneficial to the economy (cognitive base). Research has demonstrated that these structural components are not only conceptually distinct (Breckler, 1984; Breckler & Wiggins, 1989), but also influence behaviors and evaluations separately (Crites, Fabrigar, & Petty, 1994). For example, when a persuasive message is framed using language that matches the person’s underlying attitudinal base (e.g. an affective message for an affective attitude), it typically produces more persuasion than a mismatched message (Fabrigar & Petty, 1999; Huskinson & Haddock, 2004; for an exception, see Millar & Millar, 1990).

Some research from the collective action literature has examined the distinction between affective and cognitive bases and participation in social protest (Finkel, Muller & Opp, 1989; Kelly & Breinlinger, 1995; Smith & Oritz, 2002; van Zomeren et al., 2008). Termed “affective” and “perceptual” injustice, this research has studied how feelings of injustice versus beliefs that injustice exist result in people’s social protesting. A meta-analysis by Zomeren and colleagues (2008) showed that both feelings and beliefs
of injustice led to social protest; however, the “affective injustice” had a greater effect size. If one considers social protest to be mostly a spontaneous endeavor, then this research could suggest that affective bases are especially linked to proactive advocacy. However, because this research did not distinguish proactive from reactive protesting, this conclusion is not clear. Because the primary goal of this thesis is to examine how the affective versus cognitive bases of attitudes relate to the different types of advocacy, it is useful to consider what prior work would suggest.

Previous work on affectively versus cognitively based attitudes has shown that when a task is framed to match the structural basis of one’s attitude (e.g. a cognitively framed task for a cognitive attitude), the individual is more likely to engage in it than if the situation is mismatched (Millar & Tesser, 1986; 1989). In terms of advocacy, first consider when it is done reactively. In this instance, someone first asks for you to express your opinion on a topic. This requested expression could involve the presentation of persuasive arguments such as a request to give a persuasive message at a rally (direct advocacy), or it could involve opinion expression in the absence of arguments such as a request to wear a pro-candidate political pin (indirect advocacy). The requester may presume knowledge of the target’s opinion or may be unaware of it, but in either case, a specific entreaty to engage in expression of one’s opinion could in turn make salient the expectation for a thoughtful or reason-based response. For example, before agreeing to wear a political pin, one might assess whether there are good reasons to support the candidate and therefore agree to wear the pin. And, if the other person requests that arguments be presented for one’s viewpoint, one might only agree to the request to the
extent that one has reasons underlying the attitude. Thus, in response to explicit requests, the hypothesis is that people will be more likely to elect to advocate when one’s attitudes are based on cognition rather than affect. In fact, some work shows that when the cognitive aspects of an attitude are made salient, cognitively based attitudes are better predictors of behavior than affectively based attitudes (Trafimow & Sheeran, 1998).

The situation may be quite different, however, when considering proactive advocacy. In this case, the individual is electing to advocate without any kind of prompting from another person—one chooses to advocate because the topic came to mind and the person feels compelled to express his or her views spontaneously. For proactive advocacy, the prediction is that regardless of the content in the advocacy, people will be more likely to engage in or decide to proactively advocate the more their attitudes are based on affect rather than cognition. There are a number of factors contributing to this hypothesis. First, work on affect has shown that affective (compared to cognitive) attitudes are associated with greater accessibility (van den Berg et al., 2006). That is, when researchers primed participants to consider how they “feel” (affect) versus “think” (cognition) about a topic, those who had been primed to consider the affective aspects of the attitude were faster in responding (for other work, see Ginner-Sorolla, 2004; Verplanken, Hofstee, & Janssen, 1998). Thus, affectively based attitudes may come to mind more easily and frequently and therefore result in more proactive behavior, including advocacy. Beyond accessibility, though, other research has also connected affect 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. With proactive advocacy, then, both the ease with which the attitude comes to mind, as well as the energization that the affect provides, could result in spontaneously approaching someone to advocate the attitude. Although cognitive attitudes possess ample reasons and beliefs underlying their evaluation, because these attitudes may be less likely to come to mind unless cued and don’t possess the underlying drive to share it, these types of attitudes may be less likely to evoke the decision to proactively advocate.

This rationalization for attitudinal bases predicting their respective type of advocacy parallels an already established distinction between deliberative and spontaneous behaviors that are said to result from deliberative (explicit) versus automatic (implicit) attitudes (Dovidio et al., 1997; Strack & Deutsch, 2004; Strack, Werth, & Deutsch, 2006). Deliberate behaviors are those which are elicited as a consequence of a decision process that incorporate knowledge about the value and probability of an outcome in response to a behavior (Hummel & Holyoak, 2003). Spontaneous behaviors are done without intention and are activated as part of a “behavioral schema” (Johnson & Hirst, 1991; McClelland et al., 1995). When considering reactive advocacy, then, it may be that this is more of a deliberative behavior. That is, first someone makes a request of the advocator related to his or her attitude on a topic, after which, the advocator is inclined to provide a purposeful and deliberative response. Although the cognitive bases of attitudes have not been explicitly linked to deliberative behaviors, these kinds of acts are the results of explicit judgments and considerations (Lieberman, 2003), and it is possible that believing you have thoughts and reasons underlying your evaluation may
lead to actions in similarly thoughtful ways. In this regard, cognitive attitudes may be leading to greater intentions to reactively advocate. On the other hand, when considering proactive advocacy, we earlier noted a link between affect and accessibility (e.g. Ginner-Sorrola, 2004). Similarly, research has also connected accessibility and spontaneous behaviors (Higgins, 1996). That is, because proactive advocacy is the instantiation of one’s unprompted attempt to advocate, the heightened accessibility due to the greater extent of underlying affect may result in the greater intention to advocate proactively. In this regard, proactive advocacy would be similar to other spontaneous behaviors wherein the behavioral schema is triggered when the attitude object comes to mind automatically, thus cuing the behavior itself (e.g. Dovidio et al., 1997).

Now, although all of the work so far discussing affective versus cognitive bases of attitudes are and have been described as conceptually distinct, it does not entail that they are mutually exclusive. Someone can have both affective and cognitive bases underlying an attitude, and these bases can influence one another (Eagly, Mladanic, & Otto, 1994). What is particularly valuable, 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 (cognitive) attitudes were more persuaded by the affective (cognitive) message. With advocacy, then, what may be important in predicting which type of advocacy the individual does (i.e. reactive or proactive) is the extent to which one’s attitudinal base is either relatively more cognitive or affective.
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 (and more storied) method for measuring one’s cognitive or affective attitudinal bases has been called the *structural or objective* method (for a review, see See, Fabrigar, Petty, 2015). Objective measures of affective versus cognitive bases consider the correlations between affective and cognitive valences underlying the attitude and the global valence of the attitude itself. For example, if someone has a positive attitude and likewise has positive evaluative emotions (whereas they have less consistent or opposing evaluative beliefs), then his/her attitude would be more affectively based. The opposite would be true if the beliefs more closely corresponded to the global, evaluative direction (e.g. Crites, et al., 1994).

The second method for measuring attitudinal bases is called the *subjective or meta-*bases method (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 (for reviews see, See et al., 2015; Wegener, Downing, Krosnick, & Petty, 1995). For example, take an attitude strength indicator such as knowledge. An individual has a structural or objective amount of knowledge underlying the attitude (i.e. the extent of actual knowledge the person has on the topic) as well as a subjective amount of knowledge (i.e. the person’s perception of how much knowledge he or she has; Wood et al., 1995). Some recent research has examined the
implications of this distinction with respect to the affective versus cognitive bases of attitudes.

First, prior work has shown that although objective and subjective measures of the affective versus cognitive bases of attitudes are not always highly correlated, they can still predict many of the same outcomes (See et al., 2015). For example, work has shown that both objective and subjective measures allow prediction of the matching effect in persuasion and each measure accounts for separate sources of variance (See et al., 2008; See, Fabrigar, & Petty, 2013). Nonetheless, one important distinction between objective versus subjective measures is that the subjective measures of attitudinal bases are more predictive of deliberative responses, whereas objective measures are more predictive of spontaneous actions (See et al., 2008, Study 4). For the present research, we elected to use the subjective (meta-bases) measure of the affect and cognition underlying attitudes for two reasons. First, because our measures of advocacy were deliberative, requiring people to contemplate whether or not they would engage in proactive or reactive advocacy, we used the more deliberative self-report measure of subjective affective and cognitive bases. That is, because the subjective measures assess people’s deliberative assessments of the bases of their attitudes, this is matched with measures that assess people’s deliberative assessments of their advocacy intentions. Second, and less importantly, the subjective measures are easier to assess and implement than the objective measures and thus were chosen as a first step. Importantly, as elaborated further in the final discussion, future research should compare objective to subjective measures of affective versus cognitive bases of attitudes in the domain of advocacy.
The Present Research

The most important goal of the present research is to determine whether people would report different intentions to reactively versus proactively advocate their attitudes as a function of their perceptions of the affective versus cognitive bases of their attitudes. As explained earlier, when considering reactive advocacy, it is hypothesized that the more the attitude is perceived to be based on cognition, the greater the reported advocacy will be. This is because when people are prompted to express their views, they may be prone to consider whether their attitudes are based on reasons. On the other hand, when considering proactive advocacy, it is hypothesized that the more the attitude is perceived to be based on affect, the greater the reported advocacy will be. This is because when people are considering expressing their views spontaneously, they may be prone to consider how emotional they are about the attitude object and thus prone to action. People may also be aware that their affectively based attitudes come to mind more quickly and this perceived accessibility could be an important determinant of action (see Barden, Luttrell, Kopp, & Petty, 2015).

A secondary goal of the current research was to explore the question of whether direct vs. indirect advocacy intentions differed as a function of one’s subjective affective and cognitive bases. However, because there were no clear predictions for whether or not people would respond differently to these various methods of advocacy, no explicit hypotheses were derived. Nonetheless, we were interested in learning if such a distinction (i.e. direct vs. indirect) would emerge to provide predictively meaningful results.
To address the hypotheses, the current research reports three studies, two correlational and one experimental. In each study, we examine whether (1) when people are considering their likelihood of engaging in reactive advocacy, those who perceive their attitude to be more cognitively (vs. affectively) based will report greater intentions to advocate, and (2) when people are considering their likelihood of engaging in proactive advocacy, those who perceive their attitude to be more affectively (vs. cognitively) based will report greater intentions to advocate. These hypotheses will be examined both on a relative basis and separately for perceived affective and cognitive bases considered independently.
Chapter 2: Studies 1a and 1b

The goal of this study was first to test whether one’s perceived affective and cognitive attitude bases differentially predicted people’s intentions to engage in different types of advocacy (i.e. proactive vs. reactive advocacy). Additionally, this research aimed to determine whether these perceived bases would also affect the method of advocacy (i.e. direct vs. indirect advocacy).

As described previously, the key hypothesis was that the more affectively based one perceives his or her attitude to be, the more proactive one’s advocacy intentions will be. In contrast, it is hypothesized that the more cognitively based a person’s attitude is perceived to be, the more reactive one’s advocacy intentions will be. Furthermore, as described in the introduction, a secondary exploration in this study was whether this core hypothesis would hold more strongly for participants’ responses to direct versus indirect measures of advocacy.

In Study 1a participants reported their perceived affective and cognitive bases for their attitudes toward the current laws on gun control, as well as the likelihood of their intent to proactively and reactively engage in direct and indirect advocacy. In Study 1b, participants again reported their perceived affective and cognitive bases for their attitudes but this time it was toward recycling. As in Study 1a, they provided their intentions to
proactively and reactively engage in direct and indirect advocacy. Because both studies are identical except for the attitude topic, they are discussed jointly in the following section.

**Methods**

**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 25 participants per cell, so 130 available slots were posted for signups. For Study 1a, a total of one hundred and fifteen participants (female = 72) attended the research session. Coincidentally, for Study 1b, one hundred and fifteen participants (female = 80) also 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.

**Procedure.** Participants in each study arrived outside the laboratory and were guided to a computer station by an experimenter. After providing informed consent, the participants responded to a variety of survey questions assessing their attitude toward the topic of gun control (Study 1a) or recycling (Study 1b). The surveys also measured a variety of attitude strength variables (e.g. attitude relevance, importance, certainty, etc.—a complete list can be found in the Appendix A). However, because these measures were included for exploratory purposes not relevant to the current hypotheses, analyses including these measures are not presented. Of critical interest to the proposed hypotheses were participants’ perceived affective and cognitive bases for their attitudes toward the focal topic. 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 and excused.

**Predictor Variables.** To assess participants’ perceived affective bases of their attitudes toward the object, participants 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 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 addition to analyzing the impact on intended advocacy of each basis separately, in line with prior work on the perceived affective and cognitive bases of attitudes, 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.

**Dependent Variables.** To measure participants’ intended behavior to engage in reactive, direct advocacy, participants responded to three questions each of which asked about prompted expression of one’s opinions or arguments concerning the issue (e.g. “How likely would you be to provide arguments supporting your opinion of gun control...
[recycling] to a fellow student if the student asked for your opinion on the matter?"). Responses to these items were averaged to form an index. To measure participants’ intended behavior to engage in reactive, indirect advocacy, participants responded to two questions that also asked about prompted action but did not specifically mention providing opinions or arguments (e.g. “If your friends were going to a nearby rally supporting your opinion of gun control [recycling], how likely would you be to attend if one of those already attending friends invited you to go?”) Responses were given on 7-point scales anchored at “Not at all likely” and “Very likely.” Responses to these items were averaged to form an index.

To measure participants’ intended behavior to engage in proactive, direct advocacy, participants responded to three questions each of which asked about spontaneous expression of one’s opinions or arguments concerning an issue (e.g. “How likely would you be to provide arguments supporting your opinion of gun control [recycling] to a fellow student if you were unprompted, providing them of your own accord?”). Responses to these items were averaged to form an index. To measure participants’ intended behavior to engage in proactive, indirect advocacy, participants responded to two questions that also asked about spontaneous action but did not specifically mention providing opinions or arguments (e.g. “If your friends were going to a nearby rally supporting your opinion of gun control [recycling], how likely would you be to attend if unprompted and of your own accord?”). Once more, responses were given on 7-point scales anchored at “Not at all likely” and “Very likely.” Responses to these items were averaged to form an index.
For a list of all dependent measures, please refer to Appendix A.

**Results**

**Relative Affective vs. Cognitive Bases on Advocacy.** To begin, a 4-variable analysis was run which included the following factors predicting the extent of advocacy: study (i.e. gun control vs. recycling) by affective-cognitive *basis* of attitude (i.e. relatively high affect vs. relatively high cognition) by the within-subject *method* of advocacy (i.e. direct vs. indirect) by the within-subject *type* of advocacy (i.e. proactive vs. reactive). This analysis was done using SPSS’s General Estimating Equations (Bolger & Laurenceau, 2013) for mixed-design analyses, which accounts for the non-independence of observations in within-subject tests, using an exchangeable working correlation matrix.

With all of the aforementioned factors in the model (i.e. type, method, basis, and study), there was a significant main effect for the type of advocacy such that participants reported greater intentions to reactively (M = 4.87; SE = .07) versus proactively (M = 3.35; SE = .09) advocate, \( b = .77, \chi^2(1) = 19.76, p < .0001 \). Additionally, there was also a main effect for participants to report greater intentions to engage in direct (M = 4.39; SE = .07) versus indirect (M = 3.83; SE = .10) advocacy, \( b = 1.279, \chi^2(1) = 40.82, p < .0001 \). However, only the main effect of advocacy type (i.e. proactive versus reactive) was qualified by a significant interaction with the perceived basis of the attitude, \( b = -.14, \chi^2(1) = 19.32, p < .0001 \) (see Figure 1 at the end of this chapter). There was no significant interaction between method and perceived attitudinal base. To examine the interaction between perceived attitudinal base and advocacy type, though,
proactive and reactive 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 reactive advocacy, $b = .17$, Wald’s $\chi^2(1) = 12.26$, $p < .0001$. On the
other hand, when looking at the simple slope for proactive advocacy, the more the
attitude is perceived to be based on affect relative to cognition, the more one intends to
engage in proactive advocacy, $b = .13$, Wald’s $\chi^2(1) = 4.106$, $p < .043$. This interaction
was not further moderated by study/topic (gun control, recycling; $p < .674$) nor method of
advocacy (direct vs. indirect; $p < .20$). For a complete list of main effects and interaction
terms, see Table 1 at the end of this chapter. Furthermore, the four way interaction
proved non-significant, $b = -.001$, Wald’s $\chi^2(1) = .000$, $p < .986$.

Finally, one unexpected 3-way interaction was significant—*method* of advocacy
by *type* of advocacy by study, $b = .07$, Wald’s $\chi^2(1) = 7.82$, $p < .005$. This interaction
suggested that participants reported greater intentions to proactively, directly advocate on
the topic of recycling compared to proactively, directly advocating for gun control, $b = .51$, Wald’s $\chi^2(1) = 52.2$, $p < .0001$. However, because we were interested in one’s
perceived affect and cognition on advocacy this former, significant 3-way interaction is
not relevant to the hypotheses. What is of relevance, however, is the 3-way interaction
between method of advocacy, type of advocacy, and affective cognitive difference score.
That is, do perceived affective and cognitive bases influence how people would
reactively and proactively advocate as a function of whether or not the advocacy was
direct or indirect? Although this 3-way interaction proved non-significant, $b = .028$, Wald’s $\chi^2(1) = 1.64, p < .20$, breaking the analyses down by advocacy method (i.e. direct versus indirect) does provide some insightful results.

When looking at just the indirect advocacy measures, a 3-factor analysis (i.e. study, advocacy type, and attitude basis) was computed. As before, there is a main effect for participants predicting a greater likelihood of engaging in reactive advocacy ($M = 4.4; SE = .08$) over proactive advocacy ($M = 3.3; SE = .11$). However, once again, this main effect is qualified by a significant interaction between advocacy type and attitudinal base, $b = .11$, Wald’s $\chi^2(1) = 8.3, p < .004$. Simple slope analyses reveal that when considering reactive advocacy, the more one perceives his or her attitude to be cognitively based, the more one advocates, $b = -.15$, Wald’s $\chi^2(1) = 3.6, p < .057$. However, examining proactive advocacy, the extent to which one’s attitude is based on affect or cognition does not predict advocacy ($p < .38$); though, the direction indicates that greater perceptions of affective bases increases advocacy intentions. All other interactions are non-significant.

When considering only the direct advocacy measures, a 3-factor analysis (i.e. study, advocacy type, and attitude base) reveals findings very similar to the first set of analyses. That is, there is once again a main effect for participants to report greater intentions to engage in reactive advocacy ($M = 5.3; SE = .07$), over proactive advocacy ($M = 3.4; SE = .10$), $b = .946$, Wald’s $\chi^2(1) = 25.3, p < .0001$. Again, though, this main effect is qualified by a significant interaction between advocacy type and one’s attitudinal base, $b = -.19$, Wald’s $\chi^2(1) = 11.1, p < .001$. Simple slope analyses show that when considering reactive advocacy, the more one perceives his or her attitude to be
cognitively based, the more one advocates, $b = -1.16$, Wald’s $\chi^2(1) = 20.2$, $p < .0001$.

Furthermore, when examining proactive advocacy, the more one’s attitude is based on affect, the more s/he reports intentions to advocate, $b = .17$, Wald’s $\chi^2(1) = 4.42$, $p < .036$. Additionally, there is also a significant interaction between the type of advocacy and the study, suggesting that people were more likely to advocate in general when the topic was about recycling, $b = -.15$, Wald’s $\chi^2(1) = 10.1$, $p < .001$. However, the 3-way interaction between study, advocacy type, and attitudinal base proved non-significant ($p < .732$).

**Effects of Perceived Affective and Cognitive Bases on Advocacy.** To ascertain whether the relative effects just reported were driven by affective basis, cognitive basis or both, the affective and cognitive basis measures were each used as individual predictors in a mixed-design analysis. Again, the three prior factors were included in the analysis (i.e. type, method, and study) along with either the cognitive or affective basis measure, making the total analysis a 4-factor model.

When using one’s perceived cognitive basis as a predictor, there is a significant interaction between the extent to which people perceive their attitude to be cognitively based and the type of advocacy they report intentions to engage in, $b = .12$, Wald’s $\chi^2(1) = 8.5$, $p < .003$ (see Figure 2 at the end of this chapter). Simple slope analyses reveal that the more one perceives his or her attitude to be cognitively based, the greater s/he reports intentions to reactively advocate, $b = .36$, Wald’s $\chi^2(1) = 33.9$, $p < .0001$. However, perceived cognitive bases do not have a significant effect in predicting one’s intentions to
proactively advocate, b = .11, Wald’s $\chi^2(1) = 1.6, p < .20$. No other effects proved reliable in this analysis.

When using one’s perceived affective basis as a predictor, there is once again a significant interaction between the basis and the type of advocacy, b = .14, Wald’s $\chi^2(1) = 13.4, p < .0001$ (see Figure 3 at the end of this chapter). In this case, however, simple slope analyses reveal that greater perceptions of affective bases predict increased intentions to proactively advocate, b = .38, Wald’s $\chi^2(1) = 20.7, p < .0001$, whereas they have a non-significant effect on reactive advocacy, b = .10, Wald’s $\chi^2(1) = 1.4, p < .231$. No other effects were reliable.

**Summary.** Together, these measured studies demonstrate that within reactive advocacy, those with more cognitively perceived attitudes report greater intentions to advocate both directly and indirectly. Furthermore, when examining proactive advocacy, those with more affectively perceived attitudes report greater intentions to advocate both directly and indirectly. Furthermore, these results held across two divergent attitude issues—gun control and recycling.
Figure 1. Type of advocacy by perceived affective-cognitive difference score on intentions to advocate\(^2\)

Figure 2. Type of advocacy by extent of perceived cognitions on intentions to advocate\(^3\)

\(^2\) Intentions to advocate (y-axis) are from a composite score of both indirect and direct measures. The extent to which an attitude is perceived to be either cognitively or affectively based (x-axis) is formed from a difference of the two bases.

\(^3\) Intentions to advocate (y-axis) on a composite of indirect and direct measures as a function of the extent to which an attitude is perceived to be cognitively based.
Figure 3. Type of advocacy by extent of perceived affect on intentions to advocate\(^4\)

\(^4\) Intentions to advocate (y-axis) on a composite of indirect and direct measures as a function of the extent to which an attitude is perceived to be affectively based.
Table 1. List of interactions

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continued

5 The above is a list of the main effect and interaction values for the 4-factor model testing type of advocacy (proactive vs. reactive) by method of advocacy (direct vs. indirect) by perceived attitudinal base (affective vs. cognitive) by study (gun control vs. recycling).
Table 1 Continued

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4-Way Interaction

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Chapter 3: Study 2

The goal of Study 2 was to conceptually replicate the results of Studies 1a and 1b 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. In this study, 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 Studies 1a and 1b, our hypotheses remained constant. That is, when reporting intentions to reactively advocate, those who were led to believe their attitudes were cognitively based should be more likely to indicate that they would advocate. On the other hand, when reporting intentions to proactively advocate, those who were led to believe their attitudes toward recycling were based on affect should be more likely to indicate that they would advocate.

Methods

Participants. Study 2 had sixty-four participants randomly assigned to one of two groups. However, eight participants were dropped from the analyses for failing to
believe the manipulation, bringing the total to fifty-six participants (female = 24).\textsuperscript{6} Again, all participants were Ohio State University undergraduates enrolled in an introductory psychology class. As in the prior studies, sessions 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.

**Procedure.** Once participants were seated at their individual computer stations, they were informed the study would be about the topic of recycling. Upon giving their informed consent, participants provided their attitudes toward recycling before continuing on to the focal manipulation. That is, participants learned 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 or 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 study 1, a manipulation check, and some ancillary measures. When finished with the study, participants were debriefed about the deception and excused.

For a complete outline of the experimental design, along with the instruments presented to participants, see Appendix B.

**Independent Variable: Perceived Affective vs. Cognitive Basis.** The induction designed to induce differential perceptions of the affective versus cognitive basis of one’s attitude consisted of several steps. First, participants responded to the Need for Affect

\textsuperscript{6} Toward the end of the study, participants were asked a dichotomous, “Did you believe the results of the computer feedback?” to which eight checked that they did not.
(Appel, Gnambs, & Maio, 2012) and Need for Cognition scales (Cacioppo & Petty, 1982). 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. Next, they responded to questions that led them to focus 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, Fabrigar & Petty, 2004). 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, to make salient that there were at least sometimes the participants had relied on their emotions when considering recycling.

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.” This false feedback was bolstered with a fictionalized citation.

**Dependent Measures.** After receiving the experimental induction, participants answered the ten advocacy questions described in the prior studies presented in a random order. Subsequently, they also responded to some attitude strength measures noted earlier as well as two manipulation checks. 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 thoughts and reasons?” Both scales were anchored at 1 (Not at all) and 7 (Very much).

As with the prior studies, these responses were z-scored and then subtracted from one another to form a difference score. Again, this relative score provides an index of whether the participant’s perceived bases were relatively more affective or relatively more cognitive.

**Results**

**Manipulation Check.** To determine if the manipulation affected participants’ beliefs about the basis of their attitudes, the manipulation check question was analyzed. Participants’ scores were computed from participants’ own perceptions of their affective and cognitive bases for their attitudes. From this, a t-test between conditions revealed a significant difference such that the affective manipulation resulted in perceptions of relatively more affectively based attitudes (M = .44; SD = 1.26) and the cognitive
manipulation resulted in perceptions of relatively more cognitively based attitudes (M = -0.38; SD = 1.29), $t(54) = 2.4$, $p < .02$.

**Advocacy.** In analyzing the advocacy measures, we controlled for past recycling behavior (measured as both the estimated percentage of recyclable items they actually recycled as well as prior recycling events they had participated in; for precise wording, see Appendix A). 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. Although controlling for these variables does not affect the direction of the effects, it does help magnify them.

To begin, the same type of analysis, a mixed-design, within-subject OLS regression using SPSS’s General Estimating Equations (Bolger & Laurenceau, 2013) with an exchangeable working correlation matrix was used to test a 3-factor model: advocacy method (i.e. indirect vs. direct), by advocacy type (i.e. proactive vs. reactive), by condition (i.e. affective vs. cognitive). First, when entering the covariates as predictors into a 3-factor model (advocacy method, advocacy type, past recycling behavior) there were no significant main effects or interactions and are thus treated as covariates in the following analyses. Although there was no significant main effect for method of advocacy (i.e. direct vs. indirect; $p < .20$), there was a main effect for type of advocacy. That is, people reported greater intentions to reactively advocate (M = 5.2; SE = .34) than proactively advocate (M = 3.4; SE = .32), $b = 1.16$, Wald’s $\chi^2(1) = 45.9$, $p < .0001$. However, this main effect was qualified by a significant interaction between type of advocacy and condition, $b = .17$, Wald’s $\chi^2(1) = 6.2$, $p < .013$. Although the direction was
there for those in the affective (vs. cognitive) condition to report greater intentions to proactively advocate, simple effect analyses proved non-significant (p< .86). Similarly in line with the hypothesis, those in the cognitive (vs. affective) condition reported greater intentions to reactively advocate; however, this simple effect analysis, too, was non-significant (p < .18; for a graph of the results, see Figure 4 at the end of this chapter).

Now although the 3-way interaction between advocacy type, advocacy method, and condition was non-significant (p < .25), these results can also be computed when separating the dependent variable into indirect or direct advocacy measures. With indirect advocacy, there is the consistent main effect for people to report greater intentions to reactively (M = 5.1; SE = .21) versus proactively (M = 3.4; SE = .16) advocate. However, unlike previous analyses, this main effect was not qualified by an interaction between condition and advocacy type (p < .24; for a graph of the results, see Figure 5 at the end of this chapter)\(^7\). In contrast, when you examine the direct advocacy measures, you once more get the main effect of greater intentions to reactively (M = 5.3; SE = .16) versus proactively (M = 3.4; SE = .16) advocate, but there is also a significant interaction between advocacy type and condition, b = .236, Wald’s \(\chi^2(1) = 9.4, p < .002\). However, simple effect analyses once again reveal non-significant findings for both reactive (p < .325) and proactive (p < .536) advocacy. Still, the slopes are in the predicted directions.

In addition to this primary analysis, a similar 3-factor model can be done by replacing the experimental condition with the manipulation check. That is, to parallel the analysis conducted for the measured Studies 1a and 1b, an analysis with advocacy type...
by advocacy method by affective-cognitive difference score was computed. Paralleling the results above, there is once again a main effect of advocacy type such that people report greater intentions to reactively advocate compared to proactively advocate ($b = 1.07$, Wald’s $\chi^2(1) = 34.7$, $p < .0001$). More informatively, there is also a significant interaction between advocacy type and participants’ affective cognitive difference score ($b = .12$, Wald’s $\chi^2(1) = 5.2$, $p < .022$). Decomposing this interaction, a simple slope analysis reveals that proactive advocacy increases as attitudes become more affectively than cognitively based, $b = .40$, Wald’s $\chi^2(1) = 15.2$, $p < .0001$). However, although intentions to engage in reactive advocacy tend to increase as attitudes become more cognitively based, this was not significant, $b = .14$, Wald’s $\chi^2(1) = 1.19$, $p < .27$.

**Summary.** Although this experimental evidence is not as strong as the measured studies, there does seem to be a consistent pattern. That is, when examining intentions to reactively advocate, the more one perceives his or her attitude to be cognitively based, the more one intends to engage in reactive advocacy. Oppositely, when examining intentions to proactively advocate, the more one perceives his or her attitude to be affectively based, the more one intends to engage in proactive advocacy.
The above figure shows the effect of manipulated condition (cognitive vs. affective) on a composite of direct and indirect advocacy intentions (y-axis).

The above figure shows the effect of manipulated condition (cognitive vs. affective) on only the indirect advocacy intention measures.
Figure 6. Intentions to directly advocate by condition\textsuperscript{10}
As noted earlier, advocacy is a pervasive part of human existence. From politicians who explicitly argue for their own election to the more subtle requests from friends to wear a campaign button, the advocacy attempts of others are constantly trying to influence our decisions. These expressions of opinions, whether opposing someone else’s or valence-consistent but more extreme, can shape the way we perceive and interact with the world around us. However, 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 begin addressing this lapse. In particular, across three studies, it demonstrated how the subjective perception of one’s attitudinal base (i.e. the affect or cognitions underlying one’s global evaluation) can separately influence a person’s intentions to reactively and proactively advocate.

In the two measured studies (1a and 1b), we showed that when considering the likelihood one would reactively advocate, the perception that one’s attitude is more cognitively based led to greater intentions of advocacy. On the other hand, when
considering the likelihood one would proactively advocate, the perception that one’s attitude is more affectively based led to greater intentions to advocate. In the third, manipulated study (i.e., Study 2), the interaction between advocacy type and attitudinal base was significant; however, none of the simple slopes (e.g. the affective vs. cognitive condition producing significantly greater intentions to proactively advocate) reached statistical significance.

In general, in addition to producing a significant interaction between perceived basis of attitude (affective or cognitive) and type of advocacy (proactive or reactive), all three studies showed the consistent main effect that people were more likely to report intentions to engage in reactive versus proactive advocacy regardless of their attitudinal base. Speculation for this finding is based on two possible explanations. First, it could simply be that reactive advocacy is less “effortful” than proactive advocacy. That is, reactive advocacy is always in response to another’s initiation, whereas proactive advocacy requires one to initiate the behavior in the first place. Along these lines, the second explanation has to deal with the perceived social acceptance of reactively versus proactively advocating. For example, if someone first asks for your opinion on a topic, it is presumable that they are interested in what you have to say. Proactively approaching someone to advocate, on the other hand, does not guarantee that the other person wants to hear what you have to say—and in fact, there may even be a social stigma associated with such unprompted advocacy. This social stigma would presumably be more apparent in the more direct advocacy; however, the current research actually found a main effect (in the correlational studies) for people to report greater intentions to directly (versus
indirectly) advocate. And although there was a significant interaction between the type of advocacy (i.e. proactive vs. reactive) and the method of advocacy (i.e. direct vs. indirect) in these correlational studies (this interaction did not emerge in the manipulated study), this effect was driven primarily by those considering reactive advocacy to report greater intentions to directly (vs. indirectly) advocate (see Appendix D). Thus, considering these findings, it may lend more credence to the effort hypothesis.

As just noted, an additional exploration in this study was the examination of direct versus indirect advocacy intentions. Of particular interest was whether this distinction would further moderate the interaction between proactively versus reactively advocating and one’s perceived attitudinal base. Although this distinction did not achieve statistical significance (as shown in the Results sections), there was some evidence suggestive of a slight divergence in response to the direct versus indirect measures. That is, there was a tendency for one’s perception of cognitive or affective bases to have a greater influence on one’s intention to reactively or proactively advocate when the advocacy was direct. That is, whereas the direct advocacy items showed a consistent pattern in line with the hypotheses, the indirect measures showed a similar (though non-significant; Study 1a and 1b) pattern, or even a mismatched one in which perceived cognitive bases produced a main effect in predicting advocacy intentions (Study 2). Nonetheless, because the higher level interactions between advocacy method (direct vs. indirect), advocacy type (proactive vs. reactive), and perceived attitudinal base (affective vs. cognitive) yielded
non-significance, the direct and indirect measures were treated as a general composite of advocacy.\textsuperscript{11}

**Explaining the Observed Effects**

Returning to the focal distinction in this research between reactive and proactive advocacy, there are questions to be examined about what drives this interaction. In the introduction to this paper, we provided an initial rationale for why we predicted the pattern that emerged. That is, we speculated that when advocacy is requested (reactive), it prompts deliberation about the cognitive basis of the attitude, wherein people agree to advocate to the extent that their attitude is perceived to have firm cognitive foundations or reasons based support. For spontaneous (proactive) advocacy, however, seeking out the opportunity to advocate may depend on the extent to which an attitude is automatically activated and possesses energy underlying it, qualities connected to perceptions of affective foundations. However, in post-hoc considerations, we provide two other possible explanations for the demonstrated effects: possibilities worthy for future research.

First, there is a plethora of work connecting affect and arousal (for reviews, see Kuppens et al., 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. Hayes & Kapur, 2012; Romani, Grappi & Dalli, 2012) compared to others, like sadness (e.g. Barrett & Russell, 1998; Davydov, Zech, & Luminet, 2007).

\textsuperscript{11}An exploratory factor analysis of the various measures suggested a 3 or 4 factor solution, lumping what appeared to be more direct measures together and more indirect measures together (see Appendix X). However, because of the limited sample size and number of advocacy questions, no conclusive interpretations should be drawn.
Related to advocacy, research in the marketing literature on word-of-mouth, or the “informal advocacy and/or discussion of goods and services” (Dicther, 1967), has shown that higher arousal and more highly arousing emotions lead to greater opinion sharing (Berger, 2011; Siefert et al., 2009).

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. Or, it may be sufficient for them to perceive that they are aroused by topics on which their attitudes are perceived 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 arousal or its perception could lead to increased intentions to advocate, in particular, proactively. Returning to the possible link between proactive advocacy and spontaneous behaviors, evidence has shown that high arousal facilitates well-practiced or dominant responses (Hull, 1943; Zajonc, 1965). Thus, if in fact the link between arousal, affective attitudes, and proactive advocacy exists, it could be that the arousal from the attitude object is facilitating spontaneous behaviors associated with it, which implies increased intentions to proactively advocate. Furthermore, because high arousal states can drive behavior to reduce the arousal (Cuthbert et al., 1981; Lang, 1968; 1977; 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. Although not specifically an act of advocacy, work has shown that individuals experiencing high arousal emotions often vent about that emotion to get it “off their chest” (e.g. Alicke et al.,1992; Zech, 1999). Similarly, those who perceive their attitude
to be based on emotions (especially ones that elicit more arousal) may likewise be advocating in attempt to reduce that arousal.

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 proactively advocate. Nonetheless, the question remains why affective attitudes wouldn’t simply produce more advocacy regardless of the type (i.e. why aren’t affective attitudes leading to increased reactive advocacy, too?). In response, it could be that those with affectively, arousing attitudes don’t perceive reactive advocacy to be an arousal reducing behavior. That is, arousal drives behavior to return to a state of homeostasis, and because reactive advocacy is in response to another person’s initiation/prompting, participants may not potentially perceive reactively advocating as “doing enough” to reduce their arousal. However, this explanation is merely speculation and deserves further consideration.

Nonetheless, even if this explanation were true, the design of the current research doesn’t seem to foster such an account. Because participants answer only a few questions about the attitude object before they provide their intentions to advocate, it seems unlikely that any actual underlying arousal associated with one’s perceived affect would be evoked. Furthermore, because the affective and cognitive measures are subjective perceptions, it seems less likely that the attitude object itself is evoking the arousal (whereas a more structurally affective attitude may have). However, it is possible that perceived arousal rather than perceived affect is leading to the observed effects. That is, if people assume that affectively based attitudes are arousing, their predictions of proactive
advocacy could be based on their perceptions of arousal. In any case, future research would benefit from discerning whether the proactive advocacy stems from perceived affect per se or the actual or perceived arousal that is linked to perceived affect. If the latter is the case, then attitudes which are actually based or perceived to be based on non-arousing emotions (e.g., sadness), would not be associated with proactive advocacy.

A second, alternative explanation for the results could be due to 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. Bimbaum & Croll, 1984; Dweck, Chiu, & Hong, 1995; Molden & Dweck, 2006; Norenzayan, Choi, & Nisbett, 2002). For example, research by Chiu, Hong, and Dweck (1997) examined two kinds of lay theories about personality traits: entity versus incremental theories. Entity theories hold that an individual’s personality is composed of fixed, static traits, whereas incremental theories contend that one’s personality consists of dynamic qualities which can change and develop. In fact, some research by Akhtar and Wheeler (2015) has shown that inducing people to believe that others’ attitudes are malleable (incremental theory) rather than fixed (entity theory) leads to the increased likelihood to try to persuade someone else of a belief, presumably because of the lay theory that the persuasion effort is more worthwhile. Regarding the two types of advocacy examined in this thesis, there could be similar lay theories about one’s perception of attitudinal bases that influences their intentions for how they would advocate.
Considering people with affective attitudes, there may be the lay perception that emotionally charged beliefs will lead people to proactively advocate, whether they actually do or not. That is, people may believe that affective attitudes are the ones that people act on without prompting, and the results we obtained may be tapping into these lay perceptions. Similarly, people may have the lay belief that possessing reasons or cognitions for one’s general evaluation will lead to reactive advocacy, our results once more reflecting these lay beliefs. Although neither of these propositions have been tested, it would be simple enough to conduct a self-perception study (Bem, 1965) to determine if these expectations exist. Specifically, participants could read a vignette in which an individual either proactively or reactively advocates. After which, participants would be asked the extent to which the character’s attitude was based on affect and the extent to which it was based on cognition. If the lay theories hypothesis is accurate, we would expect participants to report greater affective bases for the individual who proactively advocated and greater cognitive bases for the one who reactively advocated. Furthermore, it could be that these lay theories, if they exist, drive actual advocacy behavior, or it may be that people believe that different bases drive different kinds of advocacy, but ultimately they do not. As noted below, future research should examine actual behavior instead of or in addition to perceived behavioral intentions.

**Advances of the Current Research**

Still, even with the precise mechanism yet to be fully explained, the current research provides some consequential insight for the social psychological literature. First, it emphasizes research on understanding the antecedents of advocacy. As stated before,
the majority of persuasion and attitude change research has focused on what makes an appeal most persuasive to the recipient. However, understanding when and why a source might deliver that appeal in the first place is largely ignored. Understanding when people will advocate, particularly on such impactful social topics as gun control and pro-environmental behaviors, could help inform policy or intervention programs that foster greater advocacy for improving society.

Second, this work introduces a crucial distinction in advocacy (and perhaps other domains of attitude-behavior consistency) with proactive versus reactive behaviors and suggests for the first time that each type of advocacy may have different causes. That is, the current research documented different antecedents of the different measures of advocacy. Understanding the antecedents of these two forms of advocacy are of potential importance because of the differences for each in terms of real world impact.

Specifically, proactive behaviors are the ones that presumably incite more societal change. This type of advocacy not only inspires progress but leads it. Because reactive advocacy requires another person’s initiation, it is contingent upon others’ interest and prompting. Proactive advocacy, on the other hand, is fueled by one’s own drive and should, by volume alone, have a more robust effect than reactive advocacy. Of course, if those proactively advocating are simply blurting out pro-attitudinal but meritless arguments, then this type of advocacy would presumably have less of an impact (compared to the more deliberative and cognitively based, reactive advocacy). However, if the types of advocacy are equal in persuasive merit, those proactively advocating will reach a larger and more diverse social network. Regardless, if the measured behavior is
person-to-person convincing, group protest, or even wearing attitude-expressive apparel, considering this distinction between seeking out the opportunity (proactive) versus waiting for that opportunity to find you (reactive) seems a worthwhile division for future research, not only in the domain of advocacy but potentially for other kinds of behavior as well.

Third, in addition to the proactive versus reactive categorization, this paper explored direct versus indirect advocacy behaviors, another novel consideration. And although no significant differences were shown between the direct and indirect measures, there was some slight evidence that the relative effect of the perceived attitudinal base was greater on the direct (vs. indirect) measures in predicting which type of advocacy the individual would enact (i.e. proactive vs. reactive). That said, it may be worthwhile to further explore distinctions in these different kinds of advocacy behaviors to more accurately understand which antecedents most strongly predict which behaviors.

Finally, this work also expands the literature on people’s subjective-bases for affect and cognition. Currently, the research on perceived affect and cognition has only looked at a few outcome measures, such as the persuasiveness of affective versus cognitive appeals (See et al., 2008, Study 2), people’s preference for affective versus cognitive information (See et al., 2008, Study 1 and 3), and reading time of affective versus cognitive messages (See et al., 2013, Study 1 and 2). The present research extends the work on subjective bases to novel attitude objects and outcomes. 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 you were trying to increase pro-environmental behaviors on a campus, you could design appeals that make salient the subjective perceptions of affective bases in order to encourage students’ intentions to proactively advocate for those behaviors.

**Limitations**

Although the limitations in explaining the mechanism behind the observed effects were already noted, there are a few other areas which could be addressed or improved on in future studies. First, the simple effects in the experimental test of the hypotheses failed to reach statistical significance unlike the correlational studies. Although the pattern was there for both proactive and reactive advocacy, the novel manipulation of the subjective bases wasn’t impactful enough to draw out statistically significant differences. It should be noted, however, that if the dependent measures are divided between their direct and indirect advocacy methods, the effects do become stronger for the direct advocacy measures (whereas the indirect measures had more muted results). Nonetheless, future research might aim to instantiate stronger manipulations of perceived bases of attitudes.

Second, a foremost consideration in future studies will be the addition of measures that tap into people’s *structural* affect and cognition. Although this study focused on whether or not the subjective bases predicted intentions to advocate, we do not know if structural bases would elicit similar findings. Presumably, if subjective bases are an accurate appraisal of the emotion or cognitions underlying the attitude, then structural bases should predict similar outcomes. And even if subjective bases are tapping into lay theories about the norms of advocacy (as discussed earlier), then structural affect
and cognition could still apply. That is, if you believe emotion should encourage proactive advocacy, then actually having that emotion (assuming the person is aware of it) should lead to proactive advocacy.

However, it is important to note that although both objective (structural) and subjective (perceived) affect and cognition are determined by introspective, self-report measures, the two ways of assessing attitude bases have not been shown to correlate (See et al., 2008; See et al., 2013). Therefore, the opposite prediction could be made such that objective bases would not predict proactive and reactive advocacy. For example, subjective bases may be capturing the presence of high-arousing emotions underlying the attitude (i.e. when explicitly asked to discern how much of an attitude is based on emotion, the participant may make an assessment based on how much arousal is elicited in thinking about the topic). However, the way in which objective measures assess affect may muddle that response as those measures assess emotions only as a composite of valence, ignoring the distinction between high- and low-arousal emotions. Therefore, in moving forward with this research, it would be helpful to have not only subjective and objective affective/cognitive bases of attitudes measured, but also actual behavioral DV’s to see if the affective and cognitive measures reveal different results.

A third limitation of the study is defining direct vs. indirect measures. Although we tried to capture a spectrum of advocacy-related behaviors, we only included a handful of advocacy methods when one could imagine many more. Part of the reason for our constrained list was the concern that continuing to expand the number of advocacy methods would result in encompassing all attitude-consistent behaviors. For example, on
the topic of recycling, you could generalize the definition of advocacy to the point where simply recycling in and of itself could be construed as advocacy. That is, by recycling, I am implicitly expressing to others that I believe this behavior is the right thing to do and therefore others should recycle, too. In trying to curb this expanse of advocacy’s definition, we limited our measures to the methods seemingly most common to advocacy, which unfortunately resulted in a stunted list of behaviors to compose the direct to indirect advocacy spectrum. Thus, future work should extend the current analysis to all attitude-relevant proactive and reactive behaviors.

Additionally, the trouble with defining advocacy along these direct and indirect methods becomes compounded when considering the additional proactive versus reactive divide. That is, although this division in advocacy type makes sense for the direct advocacy measures, in the indirect ones (e.g. wearing a t-shirt) it may seem more unnatural to have a proactive and reactive version of it. For example, how often does someone specifically ask you to wear an attitude-expressive t-shirt? Nonetheless, when considering the implications behind the reactive, indirect advocacy measures, they still relatively match the reactive, direct advocacy ones. For example, regardless of whether someone asks you to wear an attitude-expressive shirt or provide your verbal opinion on a topic, it implies one of two possibilities: the requester is trying to discern your attitude by whether or not you agree to wear it/how you verbally respond, or the person already knows your attitude, in which case the requester is trying to determine the extent to which you are willing to express your opinion—either by wearing the t-shirt or judging the extremity of your opinion. Furthermore, because our dependent measures for reactive,
indirect advocacy specifically ask participants their likelihood to “wear a t-shirt/attend a rally that aligns with your opinion on recycling [italics added],” it keeps constant the expression of one’s own opinion, regardless of the requester’s goal behind asking. Thus, although there may be some subtle differences behind the proactive and reactive versions of indirect and direct advocacy, these measures still capture this divide between advocating in response to a cue versus advocating of one’s own accord.

One way to help sharpen this division with proactive and reactive behaviors and their direct and indirect methods would be to have included actual behavioral (rather than perceived behavioral intention) DV’s. That is, the current research looked at perceived affect and cognition in relation to perceived intentions to advocate. However, the perceived intention to engage in direct advocacy may be more reflective of perceived affect and cognition, whereas perceived indirect advocacy may be less related (as hinted at in the results). Therefore, by having a concrete operationalization of the advocacy method being studied, we could determine the effect of one’s perceived affect and cognition on actual direct and indirect advocacy. Furthermore, by including structural measures of affect and cognition in the research, we could examine how well these predict perceived behaviors in comparison to actual ones. To artificially construct these actual behaviors in the lab, participants could be put into an online conversation and rated on how much advocacy they did (direct advocacy), or, after completing a study, participants could be provided with the opportunity to take a pro-attitudinal button (indirect advocacy). In these examples, we would include both proactive and reactive
versions of the behavior to further document how affective and cognitive bases interact with both the type and method of advocacy.

**Future Directions**

Because the study of advocacy is a relatively new focus for the persuasion and attitude change literature, there are many different areas and directions that can be explored in addition to those mentioned already (e.g., the role of arousal, structural bases, measure actual behaviors, etc.). Specific to affective and cognitive bases, one next step in this program of research is to test for possible moderators of the effects such as Need for Affect (Maio & Esses, 2002) and Need for Cognition (Cacioppo & Petty, 1982). For example, it may be the case that those who are high in Need for Affect are more likely to report intentions to proactively advocate in general, or it may be that those who are high in Need for Affect and perceive a greater extent of affect to be underlying their attitude are then the most likely to report intentions to proactively advocate. The effects these moderators can exert are nearly endless in possibilities and thus deserve further testing to determine their influence.

Although the current research presented some clear evidence that the perceived affective versus cognitive basis of one’s attitude can determine intentions to proactively versus reactively advocate, the pattern of results obtained here is likely to be moderated by a number of other variables. For example, if a *close friend* requests an advocate’s opinion (i.e. reactive advocacy), regardless of what the advocate’s attitude is perceived to be based on, the individual will likely provide his/her opinion. Whereas the current

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12 Although these individual differences were used in part of the manipulation for Study 2, a technical failure resulted in storing only a portion of the participants’ responses to these measures.
research posits that attitudes believed to be more cognitively (vs. affectively) based will lead to greater intentions to reactively advocate, because the prompter is a close friend, these underlying bases may have less bearing. That is, people will tell their close friends their attitudes regardless of what they perceive their attitude to be based on. In addition to the relationship between the advocate and the recipient, another potential moderator could be the valence of the 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 the person does? In this instance, perceiving your attitude to be based on thoughts and cognitions could make you more inclined to proactively advocate because you believe you have the ability to contest this opposing viewpoint. Still, these two examples exist alongside countless other moderators which could influence the effect of perceived attitudinal bases on proactively and reactively advocating.

Another consideration in developing this work on advocacy is to better establish a classification for the different advocacy-related behaviors. Again, the current studies only examined a handful of methods (i.e. person-to-person persuasion, recommending attitude-supportive literature, wearing attitude-expressive apparel, and attending a rally). However, by including a broader set of attitude relevant behaviors, we could determine what other dimensions are relevant to the role of affect and cognition in predicting behaviors. For example, one distinction between behaviors might be the ease or effort required of it. That is, whereas wearing a pin that expresses your political opinion is relatively effortless, making phone calls to rally supporters requires more work. Although the classification scheme of these behaviors will depend on the predictive variable of...
interest, nonetheless having a larger span of behaviors (and a greater number of participants) could provide more fruitful means for classification, for example, it would allow for a factor analysis to help determine how these behaviors group together.

With the present studies, although there was some evidence that people responded to the direct advocacy measures (i.e. personally convincing someone) differently than the indirect ones (i.e. wearing a t-shirt and attending a rally), the effect of subjective bases was directionally the same. However, even if these two types of measures had been predicted equally by the attitude’s underlying subjective bases, other predicting variables (e.g. perceived efficacy in bringing about change; perceived need that change should happen) could operate differently depending on the method of advocacy that is being assessed. For example, prior research shows that when people feel contempt and perceive they have low efficacy in instituting change, they are more likely to engage in nonnormative collective action (e.g. violent protest). However, when people feel anger and perceive high efficacy, they are more likely to engage in normative collective action (e.g. non-violent protest; Tausch, et al., 2011). Better understanding, then, how people perceive these different methods of advocacy could be instrumental in future research.

**Conclusions**

The data presented here draw attention to the need to better understand when and why people engage in advocacy. In a world fraught with both social and environmental injustice, the predominant way to make change happen is to convince other people that change needs to happen. Understanding the antecedents to 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 emotions and cognitions underlying one’s attitude may be important factors in predicting one’s advocacy attempts. Still, there is a lot more to understand, not only with these antecedents, but the countless others as well. Nevertheless, any advancement in understanding when and why people advocate will not only be beneficial from an academic pursuit but an applied one as well. For great ideas alone do not incite progress; it is the spreading of those ideas that does.
References


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Appendix A: Measures

*Intent to Advocate Measures*

1. How likely would you be to provide arguments supporting your attitude toward recycling/gun control to a fellow student if:
   a. you were unprompted, providing them of your own accord?
   b. the student asked for your opinion on the matter?

2. If you were in a group discussion on recycling/gun control, how likely would you be to speak up and provide supportive arguments for your attitude toward it if:
   a. you were unprompted, providing them of your own accord?
   b. others asked for your stance on the matter?

3. If you had a magazine article that provided strong arguments supporting your attitude toward recycling/gun control, how likely would you be to recommend or lend that magazine to a friend if:
   a. you were unprompted, providing the magazine of your own accord?
   b. your friend started a conversation on the topic and asked for your opinion?

4. If you had a t-shirt expressing your attitude toward recycling/gun control, how likely would you be to wear it out if:
   a. a friend asked you to wear it?
   b. unprompted and of your own accord?

5. If your friends were going to a nearby rally supporting your attitude on recycling/gun control, how likely would you be to attend if:
   a. one of those already attending friends invited you to go?
   b. unprompted and of your own accord?

(7-point scales anchored at: “Not at all likely” and “Very likely”)
Prior Recycling Behavior

1. Of recyclable objects you have disposed, what is the approximate percentage that you actually recycled? (Sliding scale: 0 – 100%)

2. In the past, how many recycling related events have you attened, e.g. a neighborhood recycling campaign. (Scale points: 0; 1; 2; 3; 4+)

Affect and Cognition Manipulation Check

1. To what extent do you believe your attitude toward recycling to be based on your feelings and emotions?” (7-point scale anchored at: “Not at all” and “Very much”)

2. “To what extent do you believe your attitude toward recycling to be based thoughts and reasons?” (7-point scale anchored at: “Not at all” and “Very much”)

Attitude Strength Measures

Subjective Ambivalence

1. How mixed are your feelings toward your stance on gun control/recycling? (Not at all mixed/Very mixed)

2. How conflicted are you in your feelings toward your stance on gun control/recycling? (Not at all conflicted/Very conflicted)

3. On the topic of gun control/recycling, to what degree are you undecided on your stance? (Very decided/Very undecided)

Objective Ambivalence

1. Indicate the extent of NEGATIVE thoughts and feelings you have toward your stance on gun control/recycling. (Not at all negative/Very negative)

2. Indicate the extent of POSITIVE thoughts and feelings you have toward your stance on gun control/recycling. (Not at all positive/Very positive)

Certainty
1. How certain are you of your stance on gun control/recycling? (Very uncertain/Very certain)

2. How sure are you of your stance on gun control/recycling? (Very unsure/Very sure)

3. How confident are you of your stance on gun control/recycling? (Very unconfident/Very confident)

Correctness

1. How certain are you that your stance on gun control/recycling is the correct attitude to have? (Not at all certain/Very certain)

2. To what extent do you think other people should have the same attitude as you on this issue? (Not at all/Very much so)

3. How certain are you that of all the possible attitudes one might have toward gun control/recycling, your stance reflects the right way to think and feel about the issue? (Not at all certain/Very certain)

Clarity

1. How certain are you that you know what your true stance on gun control/recycling really is? (Not at all certain/Very certain)

2. How certain are you that your stance on gun control/recycling really reflects your true thoughts and feelings? (Not at all certain/Very certain)

3. To what extent is your stance on gun control/recycling clear in your mind? (Not at all certain/Very certain)

4. How certain are you that your stance on gun control/recycling is really the attitude you have toward it? (Not at all certain/Very certain)

Elaboration

1. How deeply have you thought about your stance on gun control/recycling? (Not at all deeply/Very deeply)

Importance
1. How important to you is your stance on gun control/recycling? (Very unimportant/Very important)

Knowledge

1. How knowledgeable do you feel about gun control/recycling in general? (Not at all/Very much)

Relevance

1. How much does your stance on gun control/recycling affect you personally? (Not at all/Very much)

2. How relevant is your stance on gun control/recycling to your life? (Very irrelevant/Very relevant)

Perceived Affect and Perceived Cognition

1. How much of your stance on gun control/recycling is based upon your thoughts and reasons? (None at all/Quite a lot)

2. How much of your stance on gun control/recycling is based upon your feelings and emotions? (None at all/Quite a lot)

Need for Cognition (Cacioppo & Petty, 1982)

1. I prefer complex to simple problems.

2. I like to have the responsibility of handling a situation that requires a lot of thinking.

3. Thinking is not my idea of fun.

4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.

5. I try to anticipate and avoid situations where there is a likely chance I will have to think in depth about something.

6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to.
8. I prefer to think about small daily projects to long term ones.
9. I like tasks that require little thought once I’ve learned them.
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions to problems.
12. Learning new ways to think doesn’t excite me very much.
13. I prefer my life to be filled with puzzles I must solve.
14. The notion of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that requires a lot of mental effort.
17. It’s enough for me that something gets the job done; I don’t care how or why it works.
18. I usually end up deliberating about issues even when they do not affect me personally.

(Scale points: 1 = “Extremely uncharacteristic of me,” 2 = “Somewhat uncharacteristic of me,” 3 = “Uncertain,” 4 = “Somewhat characteristic of me,” 5 = “Extremely characteristic of me.”)

Need for Affect Scale (Appel, Gnambs, & Maio, 2012)

1. I feel that I need to experience strong emotions regularly.
2. Emotions help people to get along in life.
3. I think that it is important to explore my feelings.
4. It is important for me to be in touch with my feelings.
5. It is important for me to know how others are feeling.

6. If I reflect on my past, I see that I tend to be afraid of feeling emotions

7. I find strong emotions overwhelming and therefore try to avoid them.

8. I would prefer not to experience either the lows or highs of emotion.

9. I do not know how to handle my emotions, so I avoid them.

10. Emotions are dangerous—they tend to get me into situations that I would rather avoid.

(Scale points: 1 = “Extremely uncharacteristic of me,” 2 = “Somewhat uncharacteristic of me,” 3 = “Uncertain,” 4 = “Somewhat characteristic of me,” 5 = “Extremely characteristic of me.”)
Appendix B: Study 3 – Experimental Outline

1. Introduction to the Study

On the following page, you will be asked an intensive series of questions to determine whether your attitude toward recycling is based more on emotions or based more on thoughts. That is, research over the years\(^1\) has shown that some opinions about a topic tend to be grounded in our feelings and emotions toward it, whereas other opinions about topics tend to be more grounded in our reasoning and thoughts toward it. The following questionnaire is sensitive to your selections\(^2\), so please ensure you make choices that most accurately reflect your true beliefs.

1. (Brock & Thibaut, 1951; French & Raven, 1989; see Briñol & Luttrell, 2009, for a review)
2. (Ziegler, Diehl, & Ruther, 2002)

2. Need for Cognition and Need for Affect Scales

For the questions presented from these scales, see Appendix A.

3. Saliency Questions

Affect Manipulation

Based on your responses to the previous questions, a subset of questions has been generated to specifically inquire into your attitude toward recycling:

1. When I reflect upon recycling, I feel \________. (Sad/Happy)
2. With recycling, I _________ have strong feelings when considering my stance. (Sometimes/Always)

3. When considering recycling, it makes me feel ________. (Tense/Calm)

4. On the topic of recycling, I find that I feel ________. (Angry/Relaxed)

5. When I reflect on recycling, I _________ feel emotional when considering my stance. (Sometimes/Always)

6. If I'm reflecting on recycling, I am more likely to feel________. (Disgusted/Acceptance)

7. If I was given the opportunity to reflect on recycling, I would probably feel________. (Bored/Excited)

8. On the topic of recycling, I _________ feel impassioned when considering my stance. (Sometimes/Always)

Cognitive Manipulation

Based on your responses to the previous questions, a subset of questions has been generated to specifically inquire into your attitude toward recycling:

1. When I think about recycling, I find it ________. (Useless/Useful)

2. With recycling, I _________ use logic when considering my stance. (Sometimes/Always)

3. When contemplating on recycling, I think it is ________. (Foolish/Wise)

4. On the topic of recycling, I think it is ________. (Worthless/Valuable)

5. On the topic of recycling, I _________ utilize arguments when considering my stance. (Sometimes/Always)

6. If I'm contemplating on recycling, I am more likely to think it is ________. (Harmful/Beneficial)

7. If I was given the opportunity to think about recycling, I would probably decide it is ________. (Impractical/Practical)
8. When I think about recycling, I ________ utilize rationality when considering my stance. (Sometimes/Always)

4. False Feedback

Affect Manipulation
Incorporating both your responses to the survey questions as well as your reaction time when answering those questions, your opinion toward recycling is based primarily on:

EMOTIONALLY-FOCUSED APPEALS

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

(Ziegler, Diehl, & Ruther, 2002)

Cognitive Manipulation
Incorporating both your responses to the survey questions as well as your reaction time when answering those questions, your opinion toward recycling is based primarily on:

COGNITIVELY-FOCUSED APPEALS

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

(Ziegler, Diehl, & Ruther, 2002)
Appendix C: Factor Analysis

The following results are from an exploratory factor analysis conducted to determine the extent to which the various dependent measures on intentions to advocate correlate into different factors. From the two correlational studies, there are 230 participants’ responses to the 10 dependent measures, examining the extent to which people intend to engage in proactive and reactive direct advocacy and proactive and reactive indirect advocacy. These items were created to reflect direct attempts at advocacy (i.e. providing arguments in support of one’s stance) and indirect attempts at advocacy (i.e. just the expression of one’s opinion) done both proactively (i.e. of one’s own accord and without prompting) and reactively (i.e. done in response to another’s cuing). On each of these measures, participants indicated the likelihood with which they would engage in each of these behaviors. Correlations between responses to these items were entered into CEFA (Browne, Cudeck, Tateneni, & Mels, 2008), and exploratory factor analyses were conducted using a varimax rotation. Judging from the scree plot as well as the RMSEA, a three- or four-factor solution seems most appropriate; however, because much of the earlier analyses in this research were conducted under the pretense of a two-factor solution, those correlations have also been included.
Figure 7. Scree plot for advocacy intention measures

Table 2. Intent to advocate measures

<table>
<thead>
<tr>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  <em>ProDir1</em>: How likely would you be to provide arguments supporting your attitude toward recycling/gun control to a fellow student <em>if you were unprompted, providing them of your own accord?</em></td>
</tr>
<tr>
<td>2.  <em>ReaDir1</em>: How likely would you be to provide arguments supporting your attitude toward recycling/gun control to a fellow student if that <em>student asked for your opinion on the matter</em></td>
</tr>
<tr>
<td>3.  <em>ProDir2</em>: If you were in a group discussion on recycling/gun control, how likely would you be to speak up and provide supportive arguments for your attitude toward it <em>if you were unprompted, providing them of your own accord?</em></td>
</tr>
</tbody>
</table>

Continued

13 Scree plot for the exploratory factor analysis of the 10-item intent to advocate scale.
Table 2 Continued

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td><em>ReaDir2</em>: If you were in a group discussion on recycling/gun control, how likely would you be to speak up and provide supportive arguments for your attitude toward it if <em>others asked for your stance on the matter</em>?</td>
</tr>
<tr>
<td>5.</td>
<td><em>ProDir3</em>: If you had a magazine article that provided strong arguments supporting your attitude toward recycling/gun control, how likely would you be to recommend or lend that magazine to a friend if <em>you were unprompted, providing the magazine of your own accord</em>?</td>
</tr>
<tr>
<td>6.</td>
<td><em>ReaDir3</em>: If you had a magazine article that provided strong arguments supporting your attitude toward recycling/gun control, how likely would you be to recommend or lend that magazine to a friend if <em>your friend started a conversation on the topic and asked for your opinion</em>?</td>
</tr>
<tr>
<td>7.</td>
<td><em>ProInd1</em>: If you had a t-shirt expressing your attitude toward recycling/gun control, how likely would you be to wear it out if <em>unprompted and of your own accord</em>?</td>
</tr>
<tr>
<td>8.</td>
<td><em>ReaInd1</em>: If you had a t-shirt expressing your attitude toward recycling/gun control, how likely would you be to wear it out if <em>a friend asked you to wear it</em>?</td>
</tr>
<tr>
<td>9.</td>
<td><em>ProInd2</em>: If your friends were going to a nearby rally supporting your attitude on recycling/gun control, how likely would you be to attend if <em>unprompted and of your own accord</em>?</td>
</tr>
<tr>
<td>10.</td>
<td><em>RealInd2</em>: If your friends were going to a nearby rally supporting your attitude on recycling/gun control, how likely would you be to attend if <em>one of those already attending friends invited you to go</em>?</td>
</tr>
</tbody>
</table>
Table 3. Factor Loadings for a 2-Factor Solution

Maximum Likelihood Estimation, Varimax Rotation (N = 230)

2-Factor Solution: RMSEA = .199 (.177; .221)

<table>
<thead>
<tr>
<th>Items</th>
<th>Direct</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProDir1</td>
<td>.83</td>
<td>-.04</td>
</tr>
<tr>
<td>ProDir2</td>
<td>.76</td>
<td>.06</td>
</tr>
<tr>
<td>ProDir3</td>
<td>.76</td>
<td>.06</td>
</tr>
<tr>
<td>ProInd1</td>
<td>.15</td>
<td>.74</td>
</tr>
<tr>
<td>ReaInd1</td>
<td>.12</td>
<td>.83</td>
</tr>
<tr>
<td>ProInd2</td>
<td>.35</td>
<td>.55</td>
</tr>
<tr>
<td>ReaInd2</td>
<td>.17</td>
<td>.73</td>
</tr>
<tr>
<td>ReaDir1</td>
<td>.30</td>
<td>.32</td>
</tr>
<tr>
<td>ReaDir2</td>
<td>.25</td>
<td>-.05</td>
</tr>
<tr>
<td>ReaDir3</td>
<td>.22</td>
<td>-.01</td>
</tr>
</tbody>
</table>

Table 4. Factor Loadings for a 3-Factor Solution

Maximum Likelihood Estimation, Varimax Rotation (N = 230)

3-Factor Solution: RMSEA = .153 (.127; .180)

<table>
<thead>
<tr>
<th>Items</th>
<th>Proactive Direct</th>
<th>Reactive Direct</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProDir1</td>
<td>.81</td>
<td>.02</td>
<td>-.02</td>
</tr>
<tr>
<td>ProDir2</td>
<td>.71</td>
<td>.24</td>
<td>.01</td>
</tr>
<tr>
<td>ProDir3</td>
<td>.79</td>
<td>-.07</td>
<td>.12</td>
</tr>
<tr>
<td>ReaDir1</td>
<td>-.02</td>
<td>.70</td>
<td>.07</td>
</tr>
<tr>
<td>ReaDir2</td>
<td>.01</td>
<td>.90</td>
<td>-.03</td>
</tr>
<tr>
<td>ReaDir3</td>
<td>.27</td>
<td>.26</td>
<td>.14</td>
</tr>
<tr>
<td>ProInd1</td>
<td>.15</td>
<td>-.05</td>
<td>.81</td>
</tr>
<tr>
<td>ProInd2</td>
<td>.33</td>
<td>.09</td>
<td>.53</td>
</tr>
<tr>
<td>ReaInd1</td>
<td>-.07</td>
<td>.06</td>
<td>.82</td>
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<tr>
<td>ReaInd2</td>
<td>-.05</td>
<td>.21</td>
<td>.63</td>
</tr>
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</table>
Table 5. Factor Loadings for a 4-Factor Solution

Maximum Likelihood Estimation, Varimax Rotation (N = 230)

4-Factor Solution: RMSEA = .107 (.072; .143)

<table>
<thead>
<tr>
<th>Items</th>
<th>Proactive Direct</th>
<th>Reactive Direct</th>
<th>Indirect: Shirt</th>
<th>Indirect: Rally</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProDir1</td>
<td>.88</td>
<td>-.03</td>
<td>-.09</td>
<td>.11</td>
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<tr>
<td>ProDir2</td>
<td>.65</td>
<td>.24</td>
<td>.15</td>
<td>-.05</td>
</tr>
<tr>
<td>ProDir3</td>
<td>.71</td>
<td>-.01</td>
<td>.23</td>
<td>-.06</td>
</tr>
<tr>
<td>ReaDir1</td>
<td>.02</td>
<td>.59</td>
<td>.01</td>
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<tr>
<td>ReaDir2</td>
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<td>1.01</td>
<td>-.01</td>
<td>.00</td>
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<tr>
<td>ReaDir3</td>
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<td>.09</td>
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<tr>
<td>ProInd1</td>
<td>.00</td>
<td>-.01</td>
<td>.99</td>
<td>.01</td>
</tr>
<tr>
<td>RealInd1</td>
<td>-.06</td>
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<td>.57</td>
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</tr>
<tr>
<td>ProInd2</td>
<td>.31</td>
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</tr>
<tr>
<td>ReaInd2</td>
<td>-.02</td>
<td>.02</td>
<td>.00</td>
<td>.99</td>
</tr>
</tbody>
</table>
Appendix D: Indirect vs. Direct by Proactive vs. Reactive

Figure 8. Indirect vs. direct advocacy by proactive vs. reactive advocacy on overall intentions to advocate

14 This analysis is taken from the full, 4-factor model (i.e. advocacy type by advocacy method by perceived affective-cognitive difference score by study). First, as noted in the results section for Studies 1a and 1b, there is a main effect for people to report greater intentions to directly (M = 4.39; SE = .07) versus indirectly (M = 3.83; SE = .10) advocate, b = 1.279, Wald’s $\chi^2(1) = 40.8$, $p < .0001$. As well, there was also the main effect of reporting greater intentions to reactively (M = 4.87; SE = .07) versus proactively (M = 3.35; SE = .09) advocate, $b = .77$, Wald’s $\chi^2(1) = 19.76$, $p < .0001$. However, these main effects were qualified by the interaction between them (i.e. advocacy method by type), $b = -.181$, Wald’s $\chi^2(1) = 50.1$, $p < .0001$. Examining the simple effects, when people consider their intentions to reactively advocate, they report significantly greater intentions to directly (M = 5.33; SE = .07) versus indirectly (M = 4.41; SE = .11) advocate, $b = -.46$, Wald’s $\chi^2(1) = 36.3$, $p < .0001$. However, when considering proactive advocacy, although participants reported greater intentions directly (M = 3.44; SE = .06) versus indirectly (M = 3.24; SE = .06) advocate, this difference was not significant.

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