Perceptions of Consistency in the Attitudes of Another

Kevin R. Kennedy

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Perceptions of Consistency in the Attitudes of Another

by

Kevin R. Kennedy

Honors Thesis

Submitted to:

Jepson School of Leadership Studies
University of Richmond
Richmond, VA

May 1, 2020

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Signature Page for Leadership Studies Honors Thesis

Perceptions of Consistency in the Attitudes of Another

Thesis presented

by

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Acknowledgements

First and foremost, I would like to thank my advisor, Dr. George Goethals, for his support and wisdom over the past two years. Many of the ideas presented in this study are based on readings and ideas discussed in his Theories and Models of Leadership class that I took my junior year. I truly appreciate the hours that you have spent over the past year reading drafts and discussing ideas that have helped refine not only this thesis but my ability to critically analyze psychological phenomenon. I am particularly grateful for the extra work you put in in the last part of the year as I completed the thesis from home. Lastly, and perhaps most importantly, many of the ideas in this study were made possible because on your prior work on dissonance, attribution, and social comparison theories, all of which have substantial impact on this thesis.

I would also like to thank the two members of my committee, Dr. Don Forsyth and Dr. Scott Allison for both serving on my committee and for the valuable insights they have provided, both in their respective classes and in discussions over the past year. I would also like to thank Dr. Crystal Hoyt, who was instrumental in helping me launch the survey in Cloud Research. I would also like to thank the Jepson School of Leadership Studies for providing research funds to support this thesis and for providing me with an excellent education over the past four years.

Finally, I would like to thank my parents, sister, and friends for their support over this past year. My friends have inspired me by their intellect and determination in their own studies at a level I hope to emulate, and supported me throughout the past year. Lastly, I thank my parents for their support and hard work to ensure that I could receive an education of the caliber provided at the University of Richmond.
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Abstract

Perceptions of Consistency in the Attitudes of Another

Kevin R. Kennedy

Committee Members: Dr. George R. Goethals, Dr. Donelson R. Forsyth, and Dr. Scott T. Allison

The present study investigates how observers respond to two inconsistent inferences of an actor’s attitude. We designed a situation in which an observer forms an inference of an actor’s attitude, only to witness the actor engage in behavior that contradicts that inference one week later. Observers were then asked to rate what they believed the actor’s attitude was towards the issue and what they recalled their initial inference of the actor’s attitude to be. Observers were also asked to do the same for their own attitude towards the issue. Four main hypotheses were proposed that one, observers will attribute the counter-normative behavior to an attitude consistent with that behavior, and that, two, they would recall their prior inference of the actor’s attitude as consistent with their current perception of his attitude. Three, we expected that observers who viewed the actor as a valued, in-group member would subsequently change their own attitude in the direction of the actor’s behavior, and that, four, observers would recall their own initial attitude as consistent with their current attitude. Results demonstrate support, or partial support, for each of the four predictions in this study. Given the results, we proposed that the two inconsistent inferences can act as dissonant cognitions, causing the observers to alter their prior perception of the actor’s attitude to restore consistency. This effect was observed when the actor had both free choice and constrained choice, though to greater extent in the free choice condition. In-group members either changed their attitude in the direction of the actor’s behavior or ceased comparison, which occurred regardless of choice condition. Results indicate that inferences of another’s attitudes are not as stable as one might believe.
Chapter 1: Introduction

Consider the following scenario. You have supported a political candidate for years and have actively worked to campaign for them and convince your friends of this candidate’s merits. You believe that, based on your past observations of their behavior, the candidate supports one side of a divisive political issue. Given that you see yourself, and the candidate, as highly representative of the same political party, you too have formed a similar opinion on this issue. Suppose that you witness the candidate say or do something that seems inconsistent with what you believe they think, assume they have always thought, and what you think. This counter-normative behavior calls into question not only what you believe about the issue, but what you infer that the actor believes about this issue. How might you respond?

This study intends to investigate situations such as the one described above. We will make the novel prediction that observers, after witnessing a valued, in-group member (the actor) engage in counter-normative behavior, will not only attribute the actor’s behavior to an underlying attitude consistent with their observed behavior but will also believe that the actor has always held this position. The reasoning behind this novel proposition is based on prior research that demonstrates that individuals misperceive their own attitudes when asked to recall a prior attitude that has since changed. Individuals who had been induced to (Bem & McConnell, 1970), persuaded to (Goethals & Reckman, 1973), or experienced a natural shift in their attitudes over time (Goethals & Frost, 1978) misperceive their new attitude as being consistent with their initial attitude. Since it would be dissonant to acknowledge changing one’s attitude, individuals preemptively reduce the dissonance associated with attitude change by forgetting their perception of their original belief (Goethals & Reckman, 1973).
We propose that observers, after witnessing the counter-normative behavior, will be motivated to understand the actor’s behavior. If the observer has inferred that the actor has willingly changed their position towards the issue, the observer will be left with a discrepancy between the actor’s observed behavior and their original inference of the actor’s attitude. Such a discrepancy will arouse dissonance in the observer that they are motivated to reduce. Here, it would be easier for the observer to deny and distort their original perception of the actor’s attitude then to try and deny the actor’s behavior. We expect, then, that observers will subsequently not only misperceive consistency in the actor, but change their own attitude in the direction of the actor’s behavior, thus restoring consistency in how they perceive both the actor’s and their own attitude, provided that observers identity with the actor.

In this chapter, we will focus on the relevant literature that both informs our thinking and lends credence to the predictions presented above. We will begin with considering how individuals form impressions of others, with an emphasis on attributions of attitudes, and the similarities and differences between self-perception and social perception. Next, we will consider several reasons that observers may be motivated to conform to the actor’s perceived shift in attitude. These include social comparison theory, pressures towards uniformity, status and power of the actor within the group, and social identity theory. We will then review the literature on cognitive dissonance with consideration given to the impact of choice, presence of aversive consequences, and threat to self in dissonance arousal. Recent work on vicarious dissonance (Norton, Monin, Cooper, & Hogg, 2003), through which much of the present study is based on, will be considered as well as the ways in which attribution theory could inform the reported results. Finally, we will conclude by examining the processes through which individuals forget dissonant cognitions and an explanation of the present study.
**Attributions of Another’s Attitudes**

In the process that we have proposed above, witnessing an individual engage in counter-normative behavior requires the observer to first make an inference of the actor’s behavior. Fundamentally, people are motivated to understand the relationship between attributes of the individual and observed behavior (Jones & Davis, 1965). This motivation primarily stems from an individual’s need to both gain control of and improve the predictability of their surrounding environment (Heider, 1958; Jones & Davis, 1965). This process, however, is not without flaws, as a rather robust finding indicates that people tend to overestimate dispositional while underestimating situational explanations in attributions of behavior (Jones & Nisbett, 1971; Ross, 1977).

Although several attribution theories exist, they are all predicated on the notion that observers seek to understand the relationship of causal factors (dispositional and situational) on behavior. One such theory, correspondent inference theory, states that the correspondence between attitudes and behavior is strongest when such a correspondence separates the target individual from other individuals (Jones & Davis, 1965; Jones & Harris, 1967). Theoretically, the less the behavior can be explained in terms of social desirability, and the more choice afforded the target in engaging in the behavior, the more information the observer is able to gain about the target’s attitude, thereby inferring a stronger correspondence between attitudes and behavior. Since the observer is unable to explain the observed behavior through other causal factors, they are left to infer that such behavior must reflect the actor’s underlying attitude (Jones & Davis, 1965; Jones & Harris, 1967). Note, that this concept is similar to the discounting principle, as observers will form an internal attribution of the actor’s behavior if they perceive
that the actor freely engaged in the behavior and if no other possible causes could explain the inferred causality between disposition and behavior (Kelley, 1972; 1973).

Empirical tests of correspondent inference theory have examined the role that the actor’s degree of choice and the observer’s prior expectation of the actor’s behavior have on forming a correspondent inference. Using the attribution of attitudes paradigm, Jones and Harris (1967) had participants infer the attitude of an actor based on materials supposedly authored by the actor, varying both the amount of choice the actor had been given in writing the essay and whether the essay was in favor of or against Fidel Castro. At the time, Fidel Castro was a salient political figure and a college student taking a pro-Castro position would have been an unexpected position and thus a low prior probability of occurring. Choice was manipulated as the actor was either allowed to decide to write a pro-Castro or anti-Castro essay, or assigned a stance by experimenters. Participants used the essays written to infer the actor’s attitude towards Castro (Jones & Harris, 1967).

Contrary to predictions, participants still inferred that the actor’s behavior reflected his attitude, even when the actor had constrained choice, although to a lesser extent than in the free choice condition. This finding was interpreted as evidence of Heider’s (1958) proposition that “behavior engulfs the field”, thus indicative that an individual engaging in behavior is sufficient to assume an attitude consistent with that behavior (Jones & Harris, 1967). Numerous studies have replicated this effect, leading Gilbert and Jones (1986) to coin the phrase “correspondence bias”, as observers are prone to infer correspondence between attitudes and behavior even when situational constraints have been placed on the actor. Gilbert and Malone (1995) further clarified this process by proposing a model that explains this phenomenon. Individuals first recognize the situation and rely on their own expectations and biases when perceiving and categorizing
behavior. If the behavior appears to violate their expectation of what they expect to occur, then they are prone to assume a dispositional inference as the behavior is given more weight in their attribution than the weight given to the situation. As social perception is typically egocentric and it is often difficult to take other people’s perspective into account, observers lack insight into how situations impact others (Gilbert & Malone, 1995). Furthermore, dispositional attributions can be relatively automatic and require increased cognitive resources for individuals to change their initial inference (Winter & Uleman, 1984; Gilbert, Pelham, & Krull, 1988). Thus, observers are prone to assume correspondence between an actor’s attitudes and behavior, even after witnessing the actor engage in behavior that could be explained by other causal factors.

**Similarities and Differences Between Social and Self Perception**

As might be expected, the biased nature of attributing the attitudes of others often leads to differences between how people perceive their own attitudes and how they perceive the attitudes of other individuals. Jones and Nisbett (1972) argued that since individuals have more insight into their own mental states, relative to the mental states of others, they are more attuned to understanding how situational factors influence their own behavior. However, as they lack this insight into other individuals, they are more likely to rely on dispositions as an adequate explanation of that person’s behavior (Jones & Nisbett, 1972). Such processes have been found at the root of many psychological phenomena, including self-serving attributions of current and future events, and the tendency to perceive the self as rational and others as bias (Pronin, 2008).

While differences occur between how individuals perceive their actions and perceive those of others, other theories derive support by focusing on the similarities between social and self-perception. Self-perception theory holds that the process that underlies how an individual perceives their own actions is similar to how they perceive the actions of other. For example,
consider an example from Daryl Bem’s earliest work on self-perception theory. Bem hypothesized that a man who always eats brown bread would thus infer that he liked brown bread, just as his wife would arrive at the same inference based on her own observations of his behavior (Bem, 1965). Thus, Bem contends that individuals come to know their attitudes from inferences of their own behavior in a similar manner as they come to know other individual’s attitudes (Bem 1965; 1967; 1972). As in attribution theory, self-perception theory relies on the idea that individuals analyze both internal and external causes of behavior and that if no reasonable external reward (situational explanation) is present, they will assume that an internal cause, or disposition, is sufficient to explain the actor’s behavior, in the same manner as they explain their own (Bem, 1972).

In testing this proposition, Bem adapted a forced (induced) compliance paradigm initially developed by Festinger and Carlsmith (1959). Discussed in greater detail below, Festinger and Carlsmith (1959) found that people who were paid $1 to do a boring task and then tell someone it was interesting later reported enjoying the task more than individuals who had been paid $20 to do the same task. Bem had participants listen to a taped interaction in which an individual agreed to do a boring task and then tell someone in the other room that the task was fun. As in Festinger and Carlsmith (1959), the external reward was compensation of either $1 or $20 (Bem, 1967). The dependent variable was the observer’s perception of the actor’s attitude towards the task. Results indicated that observers rated the actor’s attitude towards the task higher when the actor was paid $1 than when he was paid $20, which was interpreted to mean that observers assumed that the actor must have found the task interesting if he did it for $1, since $1 is not a large enough incentive for lying (Bem, 1967).
The results reported from self-perception theory can be interpreted as individuals performing a similar cognitive analysis in understanding their own behavior as they do when trying to understand the behavior of others. Thus, when the external reward is low, individuals discount the situational explanation (payment) and conclude that their own behavior reflects their attitude. Research has recently drawn on Bem’s self-perception theory to understand how observers adopt the behavior of an actor with whom they share a merged identity. Termed vicarious self-perception, this process differs from traditional social influence processes as the influencer is unaware of their own influence towards the target (Goldstein & Cialdini, 2007). The model behind this theory (see figure one) is that if individuals form an internal attribution of the actor’s behavior, and share a merged identity with the actor, then the observer will change their self-perception and own behavior in accordance with the actor. However, if the actor’s behavior is attributed to an external factor, then there should be no subsequent effect on the observer’s attitude or behavior (Goldstein & Cialdini, 2007).

Empirical tests of the merged-identity model were conducted by manipulating a shared identity between the actor and observer through simulated brainwaves by using an EEG machine. Two conditions were used where half the participants were told that they had similar brain waves to the actor, while the other half were not provided information on shared brain waves. As predicted, those in the merged-identity (similar brain waves) condition changed their attitude in the direction of the actor’s behavior and later acted in a manner that was consistent with this change in attitude (Goldstein & Cialdini, 2007). Of importance is that behavior change in the observer occurred only if the actor was perceived as having willingly engaged in the behavior. Thus, an internal attribution was a necessary precursor for behavior change among observers who felt a merged identity with the actor.
Motivations to Conform to the Actor’s Shift in Attitude

Given that observers are bias to infer correspondence between an actor’s attitude and behavior, as well as prefer to compare themselves to similar others, it is pertinent to consider how observers will react if an actor is perceived as deviant. Reasonably, the actor risks being rejected from the group. Individuals may cease communication with the deviant (Schachter, 1951), tend to judge the deviant more harshly than out-group members (Maques, Yzerbyt, & Leyens, 1988), and experience more dissonance when in a group with members that they know disagree with them (Matz & Wood, 2005). Yet, as discussed below, certain circumstance may result in it being more advantageous to not reject the group member or, more difficult to do so based on the individual’s status or social identity.

Comparing the Self to Similar Others

A merged identity between the actor and observer is synonymous to the observer viewing the actor as similar to themselves. Although manipulating similarity by using shared brain waves on an EEG seems sufficient to create perception of similarity, more general findings suggest that individuals prefer to compare themselves to similar others to satisfy their psychological need to know their own opinions and abilities. Given that one’s opinions are unstable and subject to change, individuals gain confidence and come to form their opinions through social comparison (Festinger, 1954). Note that while Festinger’s (1954) original work on social comparison theory considered peoples’ need to compare their opinions and abilities with those of others, we will focus only on opinions for the purposes of this study. Individuals compare themselves to those whom they believe should be similar, based on observable attributes. This is particularly important if the attribute is one that is indicative of the individual’s opinion (Goethals & Darley, 1977). However, since individuals can never know another person’s true opinion, they must infer
other’s opinions from their behavior (Goethals & Darley, 1977). By comparing their opinions to similar others, individuals can validate their opinions, especially as they concern their beliefs. However, by doing so, individuals risk learning that their belief is incorrect and thus cannot be validated. Since individuals would expect to have similar beliefs with those that have similar attributes to themselves, receiving information that their beliefs are different from similar others can indicate that their own beliefs are wrong (Goethals & Darley, 1977).

If one is presented with information that their belief is incorrect, this does not necessarily mean that they will cease comparison to the similar other. For example, in one experiment participants were asked to read about union workers and make inferences of the worker’s behavior. Participants were then given information that implied that their opinion was either consistent or inconsistent from that of the other group members. Results indicated that the group members who were most deviant were more likely to both change their attitude and subsequently reject group members who did not change as well. These effects were stronger in cohesive, compared to non-cohesive, groups (Festinger, Gerard, Hymovitch, Kelley, & Raven, 1952). Therefore, in highly cohesive groups, one way individuals may attempt to increase their confidence in their opinion and lower the perception that they possess the wrong belief is to change their own opinion in the direction of the group’s opinion, thus restoring consistency in attitudes with fellow group members.

**Pressures Towards Uniformity and Conformity in Groups**

Changing one’s opinion in the direction of the group is more likely to occur in groups that experience pressure towards uniformity. Individuals within groups are pressured towards uniform opinions for two reasons. First, there is a need to validate social reality and opinions, which can often be achieved through consensus. Second, the group needs to accomplish goals
and uniformity of opinion facilitates this objective (Festinger, 1950). Several factors, though, moderate group pressures towards uniformity. On a group level, the more cohesive the group is, the more discrepancy that exists within the group, and the more important the issue is, the more individuals will be willing to stay in the group. On the individual level, the individuals’ motivation to remain in the group will increase their own pressure towards uniformity (Festinger, 1950). Important factors to consider are both the individuals’ willingness to remain in the group and whether leaving the group is a viable option. In some instances, an individual can freely leave a group and find another group that aligns more with their opinions. Certain groups domains though, particularly domains with a limited number of opposing groups, make it much more difficult to leave the group (Festinger, 1950). Individuals might also choose to stay in the group to increase their own status within the group’s hierarchy.

People are also likely to conform to the standards of the group, even if the standard appears to be incorrect. Asch’s (1951) widely known conformity study demonstrated that people are willing to give an incorrect answer on a simple judgement task if other members of the group had given the same incorrect answer. In the study, participants were brought into a room in small groups and were asked to judge lengths of lines, verbally giving their answers to the experimenter and the rest of the group. Unaware to the participant was that the other group members were confederates and were instructed by the experimenter to clearly give the wrong answer. However, even though the answer was clearly wrong, the participant still gave it as the correct answer to conform to other group members (Asch, 1951). Conformity, then, is a powerful mechanism within groups that helps to maintain consistent opinions among group members.
Power and Status of Group Members

Which group members engage in counter-normative behavior is an important determinant of whether that individual is rejected for their deviance or if group members will conform to the individual’s attitude. Higher status individuals are typically afforded greater latitude in deviating from the group, as perceptions of legitimacy are closely related to an individual’s status within the group. Individuals of high status who both conform to the group’s norms and demonstrate competence are more likely to be given idiosyncrasy credit, thus receive greater leeway in accomplishing the group’s goals (Hollander, 1993). This concept is based on the idea that people first make attributions of behavior prior to being influenced by the deviant group member and whether the behavior is perceived as normative or counter-normative varies as a function of the individual’s status within the group. In other words, individuals with high status within the group will be provided greater leeway in behaving counter-normatively than lower status group members.

Certain group members also derive their power over individuals from being a member of a reference group. Raven (1965) differentiated between private and public dependent sources of power, with the difference being whether the influencer’s presence was necessary (public) or not (private) to monitor the target’s behavior. Referent power is one form of a private dependent power, as individuals use the reference group to compare their own attitudes. According to Raven (1965), much of balance theory, similarity attraction, and dissonance theory can be understood in terms of conforming to the standards of the reference group. In other words, individuals may conform to the attitudes of another group member who has high referent power to reduce their own uncertainty. Thus, increased referent power, competence, and prior
conformity may cause high status group member to be perceived differently, and more favorably, after engaging in counter-normative behavior.

**Social Identity Theory**

As noted above, certain situations can make it more difficult for an individual to reject, or leave, a group if they realize that their attitude is now discrepant with their fellow group members. In a situation where there are two dichotomous groups with opposing opinions, it is often difficult, if not impossible, for an individual to leave the group, thus making it easier to alter their perception of the group. This partly occurs because individual derive a sense of their own identity from their group membership and are driven to perceive their group as distinct (Tajfel & Turner, 1979). Furthermore, within each group is a prototype which serves as a cognitive manifestation of the group that become salient when individuals think of the group. Prototypes, like other memories, are subject to recall biases that can be affected by the context in which they are formed and retrieved. In other words, different situations may alter the way an individual recalls a group’s prototype based on the situational demands. Typically, prototypes help maintain a distinction between groups by exaggerating between group-differences and minimizing within-group differences (Hogg, 2001).

Individuals in the group usually conform to the prototype, especially in groups that are highly cognitively salient. This conformity effect is more powerful for lower, compared to higher, identified group members. Thus, those who are not highly identified are more likely to change their attitudes and behaviors to better match the prototype to gain acceptance by the group. Perhaps most important for our purposes, individuals who most embody the prototype, referred to as prototypical group members, are perceived as having greater influence over group members (Hogg, 2001). One explanation, then, for why individuals might conform to the deviant
group member can be explained by the perception of the group member’s high prototypicality. Furthermore, groups help to decrease one’s uncertainty about their environment, which increases individuals’ predictability of their own outcomes and interactions. Therefore, the more uncertainty people experience the more they will be driven to strongly identify with the group, as by increasing their identification with the group, individuals can lower the amount of uncertainty they experience (Hogg, 2007). As a result, lower status group members are less likely to reject a group member who embodies the group’s prototypes, as doing so could be perceived as rejecting the group and the attributes that define it. Higher identified group members, on the other hand, are likely to perceive high levels of similarity between themselves and the deviant member. Forming an internal attribution of the deviant’s behavior that suggests that the group member no longer shares the same attitude as the observer could be perceived as a threat to both the group and their relationship with that individual.

**Cognitive Dissonance**

The uncertainty that an individual experiences by realizing that a group member’s attitude is discrepant with their own attitude is a threat to consistency of attitudes within a group. Individuals have a psychological drive towards consistency that motivates to maintain a consistent relationship between two, or more, cognitions. Cognitive dissonance occurs when inconsistency between two cognitions invokes psychological discomfort in an individual, which the individual is motivated to reduce to restore consistency in their attitudes. Typically, the cognition that is least resistant to change will be alerted through either addition or subtraction of cognitive elements, thus restoring consonance (Festinger, 1957). Despite the predominant focus of dissonance research on dissonance aroused by individuals engaging in attitude-discrepant behavior, the original formulation of the theory arose from observations of group processes in a
doomsday cult. When Prophecy Fails chronicles the cult’s followers, who, inspired by their leader, Marion Keech, dealt with and rationalized their realization that their end of the world prophecy failed to occur. Prior to the event, the cult members had invested considerable time and energy into the group and preparing for the end of the world. When they realized that their prediction, and by extension their belief system, was wrong, the cult members were motivated to reduce the dissonance associated with their erroneous prediction (Festinger, Riecken, & Schachter, 1956).

Festinger hypothesized that cult members could try to deny the belief or rationalize their actions, yet he believed that the role of social support was critical for reducing dissonance (Festinger et al., 1956). According to Festinger, group members can both arouse and reduce cognitive dissonance depending on whether the group members are perceived as agreeing or disagreeing with the individual (Festinger, 1957). As other group members would presumably have “the same dissonance and the same pressures to reduce it” turning to other group members as a means of support serves as a mechanism to reduce the dissonance brought on by the false prediction (Festinger et al., 1956, p. 159). Here, it is important to acknowledge the similarities between Festinger’s proposition on the role of social support in dissonance reduction and his prior research on pressures towards uniformity in groups (see Festinger, 1950). Festinger proposed that “if more and more people can be persuaded that the system of belief is correct, then clearly it must after all, be correct” (Festinger et al., 1956, p, 159).

Members of the Keech’s doomsday cult exhibited signs of using social support to reduce the dissonance brought on by the realization of the false prophecy, turning to their leader as a source of guidance and support. After appearing upset herself by her failed prediction, Keech then seemed to change her mind. She had received “messages” that the prophecy had not failed
after all, but instead the devoted support of the cult members had saved the world from ending, a message that in the days to come was eagerly adopted and spread by cult members in their attempts to convert more followers to their cause (Festinger et al., 1956). Details revealed from this original case study of cognitive dissonance are relevant for the purposes of this study in the ways that individuals can react to a perceived shift in attitude by a fellow, high status, group member. When the group members perceived Keech to have changed her attitude after realizing that her prediction was wrong, they accepted her rationalization, thus using her perceived attitude change as a motivator to change their own attitudes and reduce their own dissonance.

Although dissonance was first studied as a group process, subsequent literature has primarily focused on an individual changing his own attitude in the direction of his counter-attitudinal behavior. The main, relevant, aspects of dissonance theory for the purposes of this study are summarized as follows. First, dissonance can be aroused from several sources, such as a logical inconsistency, violation of cultural norms, or inconsistencies in attitudes over time (Festinger, 1957). When individuals make a decision, or form an impression, how important the issue is to the individual directly affects the amount of dissonance they will experience. The more important the issue is, the more dissonance experienced, and thus greater attitude change. Furthermore, the magnitude of dissonance is directly related to the pressure to reduce dissonance, in that the more dissonance experienced, the more individuals will be driven to reduce it (Festinger et al., 1956). Therefore, although somewhat paradoxical, the more important an opinion is to an individual, the greater the potential that contradicting that opinion can lead to attitude change against the initial opinion.

Dissonance can be reduced in several ways, including either changing one’s behavior or changing one’s knowledge. By knowledge, Festinger (1957) considered that individuals may
obtain new information about their attitude, through which the social group serves a vital function, or they may forget their original attitude. If, however, they are unable to forget their initial attitude, they may try and deny the consequences of their behavior or trivialize the behavior by altering the emphasis placed on the dissonant cognitions (Ratner, 1992; Simon, Greenberg & Brehm, 1995). Denying responsibility of the attitude-discrepant behavior has also been shown to be a route of dissonance reduction (Gosling, Denizeau, & Oberlé, 2006). Most important, at least for the purposes of this study, is that modes of dissonance reduction can work in tandem, as individuals can employ a combination of strategies to reduce dissonance, a point originally made by Festinger et al. (1956) in the earliest conception of the theory. Thus, while one of the most frequently tested modes of dissonance reduction appears to be attitude change in the direction of the discrepant behavior, it is important to consider that other modes are employed and that such modes are not necessarily mutually exclusive.

**Forced Compliance Paradigm**

Despite the proposition that dissonance can be reduced through multiple modes, attitude change after engaging in attitude-discrepant behavior is, as implied earlier, one of the most prominent bodies of dissonance research. Much of this stems from Festinger and Carlsmith’s (1959) creation of the forced (induced) compliance paradigm, which manipulated the level of inconsistency produced between one’s private attitudes and outward behavior. The main prediction of the study was that an inverse relationship would occur between the reward and amount of dissonance aroused, therefore prompting attitude change to reduce the dissonance. Thus, the less reward given for doing the attitude-discrepant behavior, the more dissonance that should be produced, prompting individuals to resolve dissonance by changing their private attitude to be in accordance with their behavior (Festinger & Carlsmith, 1959). This hypothesis
was tested by manipulating the amount of reward given to participants. Participants were brought into the lab to do a boring task under the guise that the experimenters were interested in how well people performed on the task. The task involved repeatedly placing objects into trays for over an hour. Participants were then paid either $1, $20, or placed into a control condition. Experimenters then misled the participants by asking them to tell a fellow student (a confederate) in the next room that the task was interesting before completing a post-manipulation measure of their own attitude towards the task. Results indicated that participants who had been paid $1 experienced more attitude change by now believing the task to be more favorable, relative to both the control and $20 condition. Theoretically, the idea was that individuals experienced a stronger magnitude of dissonance in the $1 condition given the small amount of the reward, which they reduced by showing greater attitude change than in the other conditions (Festinger & Carlsmith, 1959). This paradigm later gave rise to other dissonance experiments that involved participants engaging in behavior that contradicted their attitudes.

**Conditions Necessary to Arouse Dissonance**

Following the success of the forced compliance paradigm in producing attitude change, specific conditions under which the paradigm is most successful in changing one’s attitudes have been found since the original use of the paradigm. Many of these culminate in what is termed as the “new look” of dissonance theory (Cooper & Fazio, 1984). These necessary conditions (see Cooper & Fazio, 1984 for a thorough review) include that the individual must freely engage in the behavior (Linder, Cooper, & Jones, 1967), feel personally responsible for the behavior (Cooper, 1971), and the behavior must arouse aversive consequences (Goethals, Cooper, & Naficy, 1979). For the purposes of this study, we will focus primarily on the role of free (high) choice and aversive consequences in arousing dissonance.
Individuals must willingly choose to engage in the behavior to arouse dissonance. Researchers have found that individuals who have been induced to make a speech or write an essay in favor of an issue that they are strongly opposed to will change their attitude in favor of the issue if they have willingly chosen to give the speech or write the essay. Theoretically, individuals must first consider the incentive offered to them and then decide whether they wish to engage in the behavior (Linder, Cooper, & Jones, 1967). When researchers varied the incentive ($0.50 or $2.50) as well as the level of choice participants were given, they found that greatest attitude change occurred for participants who were in the low-incentive, high-choice condition. Of note, they also found that these participants also took longer to decide whether to write the counter-attitudinal essay. Results indicated that when participants were afforded a high degree of freedom in engaging in the behavior a low incentive (payment of $0.50) led to greater attitude change, but with less choice a high incentive (payment of $2.50) lead to greater attitude change (Linder, Cooper, & Jones, 1967). Thus, having high choice in engaging in the behavior is a necessary precursor for attitude change resulting from cognitive dissonance.

Besides choice, it is important that individuals know the consequences of their behavior. In other words, the aversive consequences of their behavior must be either known (foreseen) or could have been known (foreseeable) beforehand. Prior research varied both foreseeability (foreseen, foreseeable, versus unforeseeable) and the amount of information (non-informed versus informed) by having participants either write a counter-attitudinal essay or give a speech on increasing the number of students at the university, a counter-attitudinal position for many of the participants in the study. For the foreseeable and foreseen groups, researchers told participants that they would send their speeches/essays to certain groups on campus who were interested in gaining a student’s perspective. Only the foreseen group was told ahead of time that
university admissions might be one of the groups interested in their essays/speeches (Goethals, Cooper, & Naficy, 1979).

After giving the speech (or writing the essay), participants were either informed or not informed that their speeches/essays had been randomly assigned to be sent to university admissions. Results indicated that those in the foreseen or foreseeable-informed conditions experienced dissonance, as evidenced by attitude change, which was interpreted as individuals feeling personally responsible for the act (Goethals, Cooper, & Naficy, 1979). Understandably, those in the foreseeable conditions could have considered ahead of time whether one of the groups on campus that were interested in their perspective was university admissions, thus arousing dissonance that was resolved by changing their attitude towards the position.

**The Role of the Self in Dissonance Arousal**

While research has established that dissonance results from inconsistent cognitions, the precise causal factor that both arouses and motivates individuals to reduce dissonance was not clearly established in the original theory. While Festinger’s (1957) original theory stated that dissonance was aroused from two inconsistent cognitions, it did not account for the role of the self in dissonance processes (Aronson, 2019). One’s self-concept is important for both dissonance arousal and reduction as the attitude must be discrepant not only with one’s current attitude but with how one views themselves (Aronson, 1969). Understandably, people are driven to perceive themselves as competent, moral, and able to anticipate their own behaviors. Being unable to do so can serve as a threat to one’s own self-concept (Aronson, 2019). Thus, much of dissonance theory can be understood as an individual’s drive to maintain a positive self-concept, including the New Look version of dissonance (see Cooper & Fazio, 1984). Recall that at the center of the New Look formulation is that personal responsibility and aversive consequences are
critical determinants for dissonance arousal. Thibodeau and Aronson (1992), however, contend that both determinants implicitly involve the individual’s self-concept. Personal responsibility invokes the self-concept if the behavior is an accurate reflection of the self. By this logic, if the behavior is not reflective of the self, then the causal factor would not be self-attributed and individuals would not experience dissonance. Likewise, aversive consequences invoke the self-concept, as what is defined as aversive depends on the individual own self-perception of competence and definition of morality (Thibodeau & Aronson, 1992).

Furthermore, the self can also serve as a mechanism to protect oneself from experiencing dissonance. Self-affirmation theory posits that if individuals can affirm a value of themselves that is important to how they view themselves, doing so can prevent them from experiencing dissonance and thus eliminate the need to change their attitude (Steele & Liu, 1983; Steele, 1988). Therefore, not only must an action result in aversive consequences for the individual to arouse dissonance, but it must also threaten their sense of self, particularly their perception of competence or their own morality.

**Vicarious Dissonance**

As alluded to above, although dissonance research has largely focused on dissonance as an individual experience, recent research has found that dissonance can occur in groups as well. Recall that the earliest case study of cognitive dissonance found that the social support of fellow group members could protect individuals from experiencing dissonance (Festinger et al., 1956). The dissonance individuals can feel in a group setting has been explored previously, finding that individuals who work harder to get into groups end up liking the groups more (Aronson & Mills, 1959) and individuals who expect to be in a group with those that disagree with them can experience dissonance (Matz and Wood, 2005). Furthermore, individuals have been found to
experience dissonance and change their attitudes if the attitude expressed implied an associated attitude (not critical for group membership), relative to a definitional attitude (critical for group membership). For example, conservative participants who advocated for extending government health care (associated attitude) were more likely to change their attitude than those who advocated against voting for Ronald Reagan, a definitional attitude (Cooper & Mackie, 1983).

The above findings, however, suggest a situation in which an individual experiences dissonance from their own behavior, whether it be justifying the effort expended to get into a group, or to explain how, despite the evidence, group members were not wrong about their prediction of the end of the world. It seems reasonable, though, that individuals could also experience dissonance from witnessing another group member contradict his or her own attitudes. In such a situation, individuals face a conflict between their own private attitude and the actor’s outward behavior.

Prior research has demonstrated that an individual will experience dissonance and subsequently change their own attitude towards the issue after witnessing a fellow group member engage in attitude-discrepant behavior. Known as vicarious cognitive dissonance, the theory posits that observers will change their own attitude if the actor engaging in the attitude-discrepant behavior is of the same in-group as the observer (Norton, Monin, Cooper, & Hogg, 2003; Cooper & Hogg, 2007). To test this, experimenters pre-tested students at a university in the United States for their attitudes towards increasing tuition, a controversial campus issue. Information was also collected on the extent to which students identified with their residential college, to which all undergraduate students are randomly assigned upon matriculation at the university (Norton et al., 2003).

Only participants who were strongly against a tuition increase (defined as being in the lowest quartile on the pre-test) and highly identified with their residential college were recruited
to participate in the second party of the study. During the study, participants were under the impression that it was a study on linguistics (see Goethals, Cooper, & Naficy, 1979) and were asked to rate the speech of another individual sitting in the other room whom they could see through a two-way mirror. Observers, however, could not recognize the other individual (a confederate) as he or she was intended to be a typical, or average, group member and was always the same gender as the observer. The experimenter asked the actor their opinion on raising tuition, which they were against, and either told the actor it was their choice to give the speech (high choice) or that they should give the speech (low choice). Participants were under the impression that the speeches would be reviewed by university officials (aversive consequences, see Goethals, Cooper, & Naficy, 1979). After hearing the speech, participants completed several post-manipulation measures on their affect and attitude towards raising tuition (Norton et al., 2003).

Results indicated that individuals changed their attitude in the direction of the actor’s behavior if the actor was an in-group member. Thus, a pre-manipulation assessment of identification with their residential colleges predicted attitude change in favor of increasing tuition. Results also indicated that individuals who heard an out-group member give the speech did slightly change their attitude in the opposite direction of the actor’s behavior, though this was not a statically significant effect (Norton et al., 2003). Subsequent research found that it was not necessary for the individuals to actually hear the speech to change their attitude, only know that although the actor stated that he or she was against the issue before giving the speech, they still agreed to give the speech (Norton et al., 2003). When the experimenter asked the actor their opinion on the issue before giving the speech, if the actor said they were in-favor of the issue and then gave the speech, no attitude change in the observers occurred. Only when the actor said they
were against the issue, yet still agreed to give the counter-attitudinal speech did in-group observers change their attitude. This was interpreted to mean that observers only change their attitude if they know the actor is against the issue (Norton et al., 2003).

This finding, though, does not explain whether the observers believed that the actor changed their opinion. In anecdotes used to explain vicarious dissonance, it is implied that the actor giving the attitude-discrepant speech would likely experience dissonance and then change their own attitude towards the issues, just as those identified with the actor and witnessed the speech would as well (Norton et al., 2003; Cooper & Hogg, 2007). However, findings of vicarious dissonance imply that observers do not infer a change in the actor’s attitudes in a vicarious dissonance paradigm. To rule out the possibility that observers conform to a perceived shift in the actor’s attitude, Monin et al. (2004) manipulated whether the actor was known to agree or disagree with the position expressed in the speech. The actor (a confederate) explicitly expressed whether they agreed or disagreed with the position being advocated (giving parents access to student health records) before agreeing to give a speech in favor of giving parents access (the attitude-discrepant behavior). As with prior research, observers only changed their attitude in favor of giving parents access when the actor was known to disagree with the issue. Participants then rated their perception of the actor’s attitude in a post-manipulation questionnaire. Results indicates that the observers inferred the speaker’s attitude as consistent with their expressed statement before engaging in the behavior, rather than their agreement to engage in counter-attitudinal behavior (Monin et al., 2004). To clarify, an actor who stated that they were against giving parents’ access to student health records and then gave a speech advocating for this stance was perceived by participants as being against providing access. Cooper and Hogg (2007) later assert that the results in Monin et al. (2004) are indicative that the
“participants remembered correctly that the speaker was against the position” and that participants did not infer attitude change in the actor when explicitly asked (p. 383). We, however, interpret these results differently than Cooper and Hogg (2007), as discussed below.

**Conditions Necessary to Arouse Vicarious Dissonance**

Despite the perplexing finding that observers change their own attitude while acknowledging that the actor has not changed his own attitude, vicarious dissonance paradigms have been found to create attitude change in an observer in conditions similar to cognitive dissonance studies. Aversive consequences (Goethals, Cooper, & Naficy, 1979) and the actor willingly engaging in the behavior (Linder, Cooper, & Jones, 1967) are the main determinants necessary for attitude change after witnessing an actor’s attitude-discrepant behavior (Norton et al., 2003; Monin et al., 2004; Blackman, Keller, & Cooper, 2016; Cooper, Feldman, & Blackman, 2019). Lastly, and relevant for the purposes of this study, vicarious dissonance can occur by imagining the speaker engage in attitude-discrepant behavior. For example, participants who imagined a friend in their same political party (Democrat or Republican) give a speech that was against the party’s typical position on the Affordable Care Act changed their attitude in the direction of the imagined actor’s behavior when the actor was perceived to have high choice in giving the imagined speech, compared to those in the low choice conditions (Cooper, Feldman, & Blackman, 2019).

**Memory, Misperception, and Forgetting Inconsistent Cognitions**

Experiencing dissonance can not only cause individuals to change their attitudes, but to forget prior attitudes that have since changed. Not surprisingly, research on the human memory has been shown to be both malleable and prone to bias and reinterpretation. For example, how a question is asked can change how respondents answer it (Loftus & Palmer, 1974). Memories
about the self are prone to distortion and misperception as well. Greenwald (1980) likens the individual’s memory about their past as akin to a totalitarian regime as both are self-serving given that how individuals perceive and remember information is subject to error. Such errors have previously been reported in relation to remembering prior attitudes that have since changed. After changing their attitude on an issue, people are likely to perceive their stance on the issue as being consistent over time (Bem & McConnell, 1970; Goethals & Reckman, 1973). In other words, they will fail to recognize that they have changed by believing that their current attitude is the one that they have always held.

**Inducing Individuals to Change Attitudes**

This effect was originally found by researchers testing the efficacy of the interpersonal simulation paradigm employed by Bem (1965; 1967) in testing self-perception theory. As described above these studies adapted the forced (included) compliance paradigm by having participants observe an actor complete a boring task for $1 or $20 and then give their assessment of the actor’s attitude. In line with results from dissonance experiments, results indicated that people assumed the actor liked the task more in the $1 condition than in the $20 since there was less external incentive, which was interpreted to mean that individuals infer their attitudes from their behavior (Bem, 1965; 1967; 1972). In an experiment testing the salience of pre-manipulation attitudes, experimenters had college student give their opinion on several issues, including how much control over courses they thought students should have on a college campus. As might be expected, the majority of students were in favor of increasing the amount of control students should have over course offerings. One week later, participants were brought back in and either asked (high choice) or told (low choice) to write an essay against giving students more control over course offerings. After, participants gave their post-manipulation
attitude, were asked to recall their prior attitude, and were asked whether they believed that they had changed their attitude. Results indicated that participants perceived consistency between their attitudes between the two sessions and the majority who had changed did not believe that they had changed their attitude when asked (Bem & McConnell, 1970).

**Persuading Individuals to Change Attitudes**

It should be noted that above findings were originally used in support for Bem’s self-perception theory. Goethals and Reckman (1973) later expanded upon this by reframing the results in terms of dissonance theory, proposing that individuals reduce the dissonance associated with changing their attitude by forgetting their original attitude. In doing so, a pre-test was administered to high school juniors and seniors on several controversial political issues, including the use of bussing in public schools. Participants discussed the issue in small groups led by a fellow student (a confederate), selected for his high status and credibility among the students. Experimenter constructed groups composed of participants with homogenous attitudes, divided by those who were in support of the issues versus those opposed to the issue. The discussion was led by the confederate, who was instructed to take the counter-attitudinal stance to the other students in the group with the intent of persuading them to change their minds (Goethals & Reckman, 1973). Note that this study differs from Bem and McConnell (1970) as participants were persuaded to change their attitude, as opposed to induced to change.

As in Bem and McConnell (1970), participants gave their post-manipulation attitude and were then asked to try and recall their initial rating of their attitude towards bussing under the assumption that experimenters would check their response to ensure correctness. Results indicated that those in favor of bussing experienced more attitude change than those against and were more likely to misperceive their new attitude as being consistent with their prior attitude.
Those who were against bussing did show attitude change and similar recall errors as well (Goethals & Reckman, 1973). Other studies have found similar results, including a study conducted at Cornell University (see Neisser, 1981, p. 178) and at Williams College (Ratner, 1992), providing evidence of the effect’s robustness.

Recalling Attitudes that Change Naturally Over Time

The research conducted on attitude recall after being induced to or persuaded to change has typically been conducted with either one week (Bem & McConnell, 1970) or 10 to 14 days (Goethals and Reckman, 1973). Here, participants were asked to recall prior attitudes that had recently changed. Later research found, though, that such recall errors that perceive the prior attitude as consistent to their current attitude can occur over larger periods of time. In one study, incoming college freshman were asked to rate their values on a questionnaire and then asked to rate them again seven months later. Researchers varied whether participants were asked to recall their prior value or give their current (final) value first, thus creating two-conditions based on recall order: recall-final and final-recall. Results were then assessed by computing correlations to measure whether the participant’s recall attitude was better correlated with the initial or final attitude. Across both conditions, the recall attitude had a stronger relationship with the final attitude than with the recall attitude (Goethals & Frost, 1978). This is indicative that individuals tend to perceive consistency regardless of whether they can use their post-manipulation attitude when rating their recall attitude or not.

The Present Study

The present study is designed to address two goals. First, this study aims to examine whether two inconsistent inferences of another person’s behavior are a source of cognitive dissonance for the observer. If so, we make the novel prediction that observers will reduce
dissonance by altering their prior inference of the actor’s behavior to be consistent with the
current correspondent inference of the actor’s behavior. Thus, they will misperceive consistency
in the actor’s attitudes over time. Second, and related to the first goal, this study aims to examine
Monin et al.’s (2004) findings that observers change their own attitude while believing that the
actor’s attitude does not change. As described above, observers in a vicarious dissonance
paradigm do not believe that the actor has changed his attitude, either on the post-manipulation
measure or when directly asked (Cooper & Hogg, 2007). However, if the data supports the first
goal of this study, then we propose that this finding could explain why observers do not infer
attitude change in the actor. We expect, then, that observers will not recognize that the actor has
changed his attitude, as doing so would be dissonant. As such, we have employed a modified
imagined vicarious dissonance paradigm (see Cooper, Feldman, & Blackman, 2019) by
providing observers enough information to infer the actor’s attitude in session one, only to
realize this inference is incorrect in session two. This more closely resembles an interaction in
which an individual forms an impression of another’s attitude at one time, only to have it be
violated at another time.

For this study, we have chosen to have observers imagine a Democratic candidate for an
upcoming election give a speech against the Affordable Care Act. Given that the candidate is a
Democrat, this is likely an unexpected behavior for the actor with a low prior probability of
occurring (Jones & Harris, 1967). Since the candidate would not gain any social benefits from
engaging in the behavior, we expect that the behavior should provide substantive information to
the observer about the actor’s underlying attitude (Jones & Davis, 1965). Thus, given that people
are bias to assume correspondence between attitudes and behavior, we propose that:
Hypothesis 1: Observers will attribute the actor’s counter-normative behavior to an attitude that is consistent with that behavior.

In other words, we expect that they will make a correspondent inference between the actor’s behavior and underlying attitude.

If observers do form this correspondent inference, then such an inference will be inconsistent with their prior inference of the actor’s attitude. Based on this reasoning, we propose the novel hypothesis of this study:

Hypothesis 2: Observers will falsely perceive consistency in the actor’s attitude just as they misperceive their own.

Given that it is dissonant for individuals to recognize their own attitude change (Goethals & Reckman, 1973) we expect that recognizing that another person has changed their attitude is also an instance of two dissonant cognitions. Theoretically, this would also violate individual’s need to accurately predict their own environment and the actions of others (Heider, 1958). Two inconsistent inferences of another’s behavior also imply a threat to one’s own competence as it pertains to social perception and judgement, which is believed to be necessary for dissonance arousal (Aronson, 1969). Furthermore, we expect that the effect will be stronger for in-group members and if asked directly as to whether the actor has changed their attitude, observers will believe that he has not changed his position on the issue.

If the observer has inferred that the actor’s attitude is now discrepant with their own attitude, then we expect to replicate vicarious dissonance findings:
Hypothesis 3: If the observer views the actor as a valued, in-group member, they will change their own attitude in the direction of the actor’s behavior.

Given that this is intended to replicate vicarious dissonance research, we expect identification should moderate the effect on attitude change in those observing the behavior, such that the more identified individuals are with the group, the more attitude change should occur (Norton et al., 2003; Monin et al., 2003). Although not previously tested in the vicarious dissonance literature, we also propose that how important the issue is to the observer will impact the magnitude of dissonance, as evidenced through attitude change, such that the more important the issue is, the more the observer will change their own attitude in the direction of the actor’s behavior (Festinger, 1957).

Lastly, we expect to replicate prior findings on how individuals perceive consistency in their own attitudes:

Hypothesis 4: Observers who have changed their attitude will misperceive their new attitude as being consistent with their prior attitude (i.e. will not infer attitude change)

This is intended to replicate previous research that has demonstrated that individuals who have changed their attitude believe that they have not changed, and that their prior attitude is consistent with their current attitude (Bem & McConnell, 1970; Goethals & Reckman, 1973; Goethals & Frost, 1978).
Note that three of the four hypotheses have already been supported in the literature. We propose that replicating these three hypotheses, with the addition of the novel hypothesis, will provide a better understanding of how individuals respond to forming to two inconsistent inferences of another’s attitude.

To test these four predictions, we will employ a 2 (political party: Democrat/Republican) x 2 (choice: high/low) between subject’s factorial design. This design is consistent with prior research on vicarious dissonance (Norton et al., 2003; Cooper, Feldman, & Blackman, 2019) and will adopt a similar paradigm, albeit with some modifications based on Bem & McConnell (1970) and Goethals and Reckman (1973). As the actor will be a Democratic candidate for election, Democrats are the in-group members, while Republicans are the out-group members. The following study is an empirical test of these hypotheses.
Chapter 2: Methodology

Participants

To test our predictions, 300 participants were recruited through Cloud Research (mTurk prime) to participate in a study on political campaigns. All recruited workers had completed a minimum of 100 studies through mTurk and had a 95%+ completion rate. Hits were microbatched to recruit participants over a twenty-four-hour period (see Burhmester, Kwang, & Gosling, 2011; Buhrmester, Talaifar, & Gosling, 2018). 300 participants were initially recruited with the goal that 80% would complete the second half of the study, bringing the total participant number to 240. Given that the main prediction reported here is novel (that observers will misperceive consistency in an actor who has engaged in counter-normative behavior), we expected 240 to leave us with 60 participants per group. Of the 300 originally recruited, 199 participants took part in the second part of the study. 26 were excluded for either failing to follow directions or for failing more than one attention check, bringing the final number of participants in the study to 173.

The study employed a 2 (political party: Democrat/Republican) x 2 (choice: high/low) between subject’s factorial design. Of the 173, 113 self-identified as Democrats (\(M_{age} = 36.3, SD_{age} = 12.290\)) and 60 self-identified as Republicans (\(M_{age} = 42.42, SD_{age} = 36.261\)). Political orientation was assessed on a scale of one (very liberal) to seven (very conservative), indicating expected differences between Democrats (\(M_{orientation} = 2.93, SD_{orientation} = 1.741\)) and Republicans (\(M_{orientation} = 5.07, SD_{orientation} = 1.191\)). Identification with political party was assessed on a one (not very identified) to seven (very identified) scale, indicating little difference in identification with their respective political party between Democrats (\(M_{identification} = 4.46, SD_{identification} = 1.963\)) and Republicans (\(M_{identification} = 4.49, SD_{identification} = 1.785\)). 106 participants identified as male
and 67 identified as female, roughly equally dispersed between both political parties. 21% of the participants identified as non-white. Participants were compensated $0.50 for completing the pre-test and $1.00 for completing the second part of the study.

**Procedure**

Participants were recruited via CloudResearch to participate in the study under the guise that they are being asked to complete a study to better understand how voters’ attitudes towards political campaigns evolve over time. The election used for this study was a hypothetical upcoming election in Central Florida for a seat in the House of Representatives in a suburban swing district. Two separate sessions were used with the same participant pool and mTurk worker identifications numbers were collected and anonymized to match data from the two sessions. The timing feature on Qualtrics was used to ensure participants spent a minimum of one second per question, to minimize participants randomly filling in questions.

**Session One**

Participants were informed that the study would be conducted in two sessions and that they would be incentivized to complete the second part with additional compensation ($1.00). Participants completed the pre-test questionnaire that was based on pre-tests administered in Goethals and Reckman (1973) and Bem and McConnell (1970) (see Appendix B for session one materials). As such, participants were asked to rate their own attitudes towards three current political issues, which have been selected for being relevant to both Democrats and Republicans, as done in Cooper, Feldman, & Blackman (2019). Data from the 2018 midterm elections were used to select issues that are currently pertinent to voters (see “2018 Midterm Voters: Issues and Political Values”, 2018). The three issues chosen were the Affordable Care Act, Abortion, and Environmental Protection.
After, participants were introduced to two fictitious candidates, Michael (Republican) and David (Democrat) through short vignettes based on “a day in the life of a candidate”, allegedly drawn from each candidate’s website to provide background information on each candidate to participants (vignettes provided in Appendix B). In truth, the vignettes were designed to allow participants to infer the candidate’s attitudes without explicitly telling them each candidate’s attitude. By doing this, the demand was placed on the participants’ own judgement abilities as they pertain to social perception and accurately predicting the actions of others. Both vignettes were written to be prototypical of each political party. For example, the Democratic candidate was said to enjoy spending his afternoons organizing recycling drives in his neighborhood, thus implying his stance on protecting the environment. Directly after reading the vignettes, participants completed a questionnaire on their assessment of each candidate’s attitudes, using an identical scale as they one they used for their own attitudes.

**Second Session**

One week after the last participant completed the pre-test, participants were contacted by email to complete the second party of the study. Participants completed the second part of the study seven to twelve days after they completed the pre-test. This timeline is consistent with prior research using one week (Bem & McConnell, 1970) and four to fourteen days (Goethals and Reckman, 1973) between the two sessions. Participants were randomly assigned to either a high choice or low choice condition and were informed that a debate recently occurred between the two candidates and that the experimenters are interested in gauging their reactions. A short paragraph explained to the participants that during the debate, the debate moderator, in the spirit of political unity, had a special devil’s advocate round and has asked one of the candidates to take a position that is inconsistent with the typical belief of their party.
Participants were then given what they believed was a transcript of the debate, designed to make the scenario seem more real and involving (see Appendix C for the high choice condition and Appendix D for the low choice condition). In the high choice condition, the debate moderator asked one of the two candidates to volunteer to give the speech and to select the issue they would like to speak on. The speech was always given by the Democrat against the Affordable Care Act, who was informed that he would not be penalized for not giving the speech, to which he responded that he “was happy to give a speech against the Affordable Care Act”. The candidate was implied to deliberate (“let me think…I would be willing to speak against the Affordable Care Act”) to indicate he had put time and thought into selecting which issue he wanted to give a counter-attitudinal speech on. In the low choice condition, the moderator chose the Democrat to give the speech, assigned him to speak on the Affordable Care Act, and did not mention whether he would be permitted to not give the speech. In both conditions, the moderator stated that the candidate’s speech could be useful in upcoming marketing materials for the election, thus implying aversive consequences (see Goethals, Cooper, & Naficy, 1979). Participants were asked to pay close attention to the transcript as there would be several “reading comprehension” questions once they were done (see post-manipulation materials in Appendix E).

After reading the transcript, participants were asked to spend one to two minutes imaging the speech that speech the actor gave against the Affordable Care Act. Consistent with past research on vicarious dissonance, participants were not shown the actual speech, supposedly for confidentiality purposes (see Norton et al., 2003; Monin et al., 2004). This, however, helped to ensure that attitude change resulted from an dispositional inference of the actor’s behavior, not from being persuaded by the speech. The timing feature was used in Qualtrics to ensure participants spent a minimum of two minutes on the page, with a timer displayed to let them
know how long they had been on the page. Participants then completed the manipulation checks (“reading comprehension questions”) and the post-manipulation attitude questionnaire, asking them to state both their attitude towards the Affordable Care Act and their perception of the actor’s attitude towards the Affordable Care Act. These two measures were counterbalanced. Next, participants were told that prior research indicates that people often do not take online surveys very seriously, and thus “to see how seriously you have taken this survey, we would like you to try and fill out the following questions exactly as you did last week”. Participants were also told that the experimenters would be checking their recall attitudes to ensure that they had been accurate in recalling their attitude from the previous week, as done in Goethals and Reckman (1973). This placed the demand characteristics on “accuracy of recall rather than consistency of recall with current attitudes” as done in Goethals and Reckman (1973, p. 494) and Bem and McConnell (1970). Again, the order of recall (participant or actor) was counterbalanced. Page breaks were used in Qualtrics to ensure that participants could not simply use their attitude on the post-manipulation questionnaire as their recall attitude. Thus, they were forced to recall their attitudes from memory without relying on their answer to the post-manipulation attitudes questionnaires.

Materials

Pre-Test Questionnaire

The pre-test questionnaire asked participants for demographic information (age, gender, location, and race/ethnicity), their political party, and the extent to which they identified with their political party on a one (1) not very identified to seven (7) very identified scale. They were also asked to state their political orientation using a one (1) very liberal to seven (7) very conservative scale, as well as their confidence in the orientation. Unless otherwise stated, all
confidence scales used a one (1) not very confident to seven (7) very confident scale. Participants’ own political attitudes towards the Affordable Care Act, Abortion, and Environmental Protection were measured on a one (1) strongly opposed to seven (7) strongly in favor scale. Each political issue was given a brief definition to ensure participants all had at least a base knowledge of the issue we were referring to. The Affordable Care Act was defined as “Obamacare, mandate that everyone has healthcare”, Abortion was defined as “a women’s right to choose”, and Environmental Protection was defined as “government regulations to protect the environment”. The final portion of the participants’ attitude measurement asked them to rate how important they found each issue on a one (1) not at all important to seven (7) very important scale.

Participants then completed similar questionnaires for both the Republican and Democratic candidates using the same scales as above on what they believed each candidate’s attitude to be, and their confidence in this assessment. All participants completed questionnaires on the Republican candidate before they did so for the Democratic candidate. The last measure participants completed had participants rate how similar they felt to each candidate on a one (1) not very similar to seven (7) very similar scale (see Appendix B for all pre-test materials).

**Post-manipulation Questionnaire**

The reading comprehension questions on the post-manipulation measures served as manipulation checks and asked participants to identify the issue the actor gave the speech on, whether the speech was for or against the issue, and how much choice they believed the actor had in giving the speech on a one (1) very low choice to seven (7) very high choice scale. Participants then completed post-manipulation measures of their attitude, their perception of the candidate’s attitude, and how confident they were in their assessment of both their attitude and
the candidate’s attitude. Scales were identical to the ones used above, with attitude measured on a one (1) strongly opposed to seven (7) strongly in favor scale, and confidence measured on a one (1) not very confident to seven (7) very confident scale. Participants answered the post-manipulation attitude questions (counter-balanced) before they answered the post-manipulation confidence in attitude questions (counter-balanced).

Participants recalled their prior attitudes towards the Affordable Care Act, Abortion, and Environmental protection on the same one (1) to seven (7) scale of strongly opposed to strongly in favor. Participants also recalled both the actor’s prior attitudes towards the same three issues, again on the same one (1) to seven (7) scale they had used during the pre-test and for their own post-manipulation attitude. Recall order (participant or actor) was counterbalanced as well. The final part of the post-manipulation questionnaire asked participants to identify the political party of both candidates (Democrat and Republican) as well as their own political party. For each candidate and for themselves, participants rated the extent to which they (and the actor) identified with their political party on a one (1) not very identified to seven (7) very identified scale, and the extent to which the individual (either candidate or participant) was representative of their political party, on a one (not at all representative) to seven (7) very representative scale. Note that these measures are based on ones given in Hogg, Cooper-Shaw, & Holzworth (1993) and used in vicarious dissonance research (see Norton et al., 2003; Monin et al., 2004; Blackman, Keller, & Cooper, 2016; Cooper, Feldman, & Blackman, 2019).

Participants also completed questions on post-manipulation similarity to each candidate on a one (not very similar) to seven (7) very similar scale. For this questionnaire, all participants answered questions pertaining to the Democratic candidate first, then the Republican candidate, and then themselves. The last question asked participants to rate the extent to which they
believed they had changed their attitude and the extent to which the actor had changed their attitude towards the Affordable Care Act. Henceforth, we will refer to this measure as the subjective attitude change measure, which was measured on a one (1) not all to seven (7) completely changed scale (see Appendix E for all post-manipulation materials).

Attention Checks

Several attention checks were used and measures were taken during both the pre-test and post-manipulation questionnaires to increase the reliability of the data. First, both surveys used Captcha verification feature on Qualtrics to prevent spam. Second, attention checks (e.g. “If you are paying attention then select 7”) were used on both surveys (see Oppenheimer, Meyvis, & Davidenko, 2009). Lastly, open-ended responses were used at the end of both surveys asking participants to “in one or two sentences, please describe what you think is the purpose of this study”. This allowed the experimenters to check responses for cogent, non-spam or random, answers to increase confidence in the accuracy of the data.
Chapter 3: Results

Pre-Test

Participants’ Attitudes

Results from the pre-test were analyzed to ensure significant, pre-manipulation, differences between Democrats and Republicans. As expected, an independent groups t-test found that Democrats were more in favor of the Affordable Care Act than Republicans $t(171) = 8.462, p<0.001$. Democrats also believed that the Affordable Care Act was more important than Republicans, $t(170) = 5.817, p<0.0001$. However, Democrats and Republicans did not statistically differ in their confidence of their assessment of their attitudes towards the Affordable Care Act, $t(171) = 1.607, p = 0.11$. Democrats and Republicans do statistically differ, though, on their confidence between the other two issues, Abortion and Environmental Protection. The means from the pre-test for each political issue are in table one.

Perception of Candidates’ Attitudes

Next, participants’ perceptions of each candidate’s attitudes were analyzed using the same procedure as done for participants’ own attitudes. An independent samples t-test revealed no significant differences between how participants perceived the Democratic candidate’s attitude on any of the three issues. On the confidence item, asking participants how confident they were in their assessment of their perception of each candidate’s attitude, participants did not statistically differ between groups (political parties). Similar trends are observed for participants’ assessment of both the Democratic candidates’ stance on Abortion and Environmental protection. These means are reported in Table two.

Contrary to the data for the Democratic candidate, participants’ perceptions of the Republican candidate’s attitude towards the three political issues does differ between political
parties. Overall, Republican participants viewed the Republican candidate as more in favor of social policies than Democratic participants did. On Abortion, Republican participants ($M = 3.32$) believed that the Republican candidate was more in favor of Abortion than Democrats ($M = 2.50$) did, $t(169) = -2.569$, $p = 0.011$. Additionally, Republican participants ($M = 4.20$) believed that the Republican candidate was more in favor of environmental protection than Democratic participants ($M = 3.52$), $t(169) = -2.495$, $p = 0.014$. There were no significant differences, however, on how participants perceived the Republican candidate’s attitude towards the Affordable Care Act, $t(170) = -0.921$, $p = 0.359$. Again, these means are reported in table two.

**Manipulation Checks**

Before performing analysis to test the main hypotheses, a manipulation check was used under the guise of a reading comprehension question. To assess the effectiveness of the choice manipulation, a 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on the choice manipulation item found a main effect of choice, with participants in the high choice condition ($M = 5.73$) believing that the actor had more choice in giving the speech than participants in the low choice condition ($M = 3.27$), $F(1, 167) = 60.916$, $p < 0.001$, $\eta^2_p = 0.267$. The same ANOVA also indicated a marginal effect of political party, as Democrats ($M = 4.34$) rated the actor as having less choice than Republicans ($M = 4.90$), $F(1, 167) = 2.935$, $p = 0.089$, $\eta^2_p = 0.017$.

**Infer an Underlying Attitude Consistent with the Behavior**

To assess the first hypothesis that observers attribute the actor’s behavior to an underlying attitude consistent with the observed behavior, a 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA was used. As
political party affiliation was measured on both the pre-test and post-manipulation
questionnaires, unless otherwise stated, all analyses reported use the political party indicated on
the pre-test.¹ Results indicate a significant main effect of choice such that those in the high
choice condition ($M = 3.49$) believed that the actor was less in favor of the Affordable Care Act
than those in the low choice condition ($M = 4.72$), $F(1, 168) = 12.905, p < 0.001, \eta^2_p = 0.071$.
While Democrats ($M = 3.99$) were more likely to believe that the actor was against the
Affordable Care Act than Republicans ($M = 4.27$) this difference was not statistically significant,
$F(1, 168) = 0.984, p = 0.323, \eta^2_p = 0.006$.

To see if participants’ perceptions of the actor’s attitude changed from between the pre-
test and the post-manipulation questionnaire, a 2 (Political Party: Democrat/Republican) x 2
(Choice: High/Low) x 2 (Time: pre/post manipulation) repeated measures ANOVA was
conducted, with time as a within-subject’s variable and political party and choice condition as
between subject’s variables. Results indicate a main effect of time on perception of the actors’
attitude such that for all participants, the mean of their perception of the actor’s attitude after
imagining him give the speech ($M = 4.09$) was significantly lower than their perception of the
actor’s attitude on the pre-test ($M = 5.96$), $F(1, 168) = 84.273, p < 0.001, \eta^2_p = 0.334$ (see figure

¹ 18 participants changed their party affiliation between the pre-test and the post-manipulation
questionnaire. Of these, seven changed from Democrat to Republican and eleven changed from
Republican to Democrat. It should be noted that the changes were not distributed evenly across
choice conditions. Of the seven Democrats who changed affiliation, five were in the high choice
condition. For Republicans, seven were in the low choice condition. 10 of the 18 participants had
political orientation that was in the middle of the scale, as taken during session one. Since the
participants measures of post-manipulation party affiliation were measured after participants
imagined the actor give the speech it is difficult to know whether these participants did not
adequately pay attention to the questions or if the change was a result of the manipulations. All
18 participants passed the attention checks as previously described. All analyses were run again
without these eighteen participants and the results were similar to those run with the entire
sample, unless specifically stated otherwise. Thus, we decided to retain these 18 participants.
two). As with the above results, the repeated measures ANOVA indicates evidence of a statistically significant main effect of choice on perception of actor’s attitude, $F(1, 168) = 7.861$, $p = 0.006$, $\eta^2_p = 0.045$. Those in the high choice condition rated the actor’s attitude towards the Affordable Care Act on the pre-test ($M = 5.96$) as nearly identical to those in the low choice condition ($M = 5.96$) yet on the post-manipulation questionnaire the two conditions differed such that those in the high choice condition ($M = 3.49$) perceived the actor to be less in favor of the ACA than those in the low choice condition ($M = 4.72$).

**Perception of Consistency in Another Individual’s Attitude**

**Recall of Another’s Attitude**

Next, to test the second hypothesis that individuals would perceive their initial perception of the actor’s attitude as consistent with their current perception, a 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on participant’s recall of the actor’s attitude was conducted. Results indicate a statistically significant effect of choice, such that those in the high choice condition ($M = 4.28$) recalled the actor as being less in favor of the Affordable Care Act than those in the low choice condition ($M = 5.42$), $F(1, 169) = 14.494$, $p < 0.0001$, $\eta^2_p = 0.079$. A similar ANOVA was conducted on participant’s recall of the actor’s prior attitude towards abortion, again revealing a main effect of choice, $F(1, 169) = 5.608$, $p = 0.019$, $\eta^2_p = 0.032$. Those in the high choice condition ($M = 4.61$) recalled the actor as being less in favor of Abortion than those in the low choice condition ($M = 5.42$). Lastly, the same analysis was conducted on participants’ recall of the actor’s attitude on Environmental Protection, again revealing a main effect of choice. Participants in the high choice condition ($M = 4.99$) recalled the actor as being less in favor of protecting the environment than those in the low choice condition ($M = 5.72$), $F(1, 169) = 5.296$, $p = 0.023$. 
**Recall Error Score**

Additionally, an attitude recall error score was calculated for each participant by subtracting their initial assessment of the actor’s attitude from what they recalled the actor’s attitude to be, as done for participant’s own attitude change scores in Goethals and Reckman (1973) and Bem and McConnell (1970). In the scores reported below, a negative score indicates attitude change in the anti-Affordable Care Act direction, while a positive score indicates change in the pro-Affordable Care direction. A 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on recall error score for the participant’s perception of the actor’s attitude on the Affordable Care Act found a main effect of choice, such that those in the high choice condition ($M = -1.67$) had a greater discrepancy between what they recalled the actor’s attitude to be and their actual inference of the attitude on the pre-test than those in the low choice condition ($M = 0.54$), $F(1, 169) = 9.931, p = 0.002, \eta^2_p = 0.056$.

The same calculation was used to create a recall error score for participants’ recall of the actor’s attitude towards abortion and environmental protection. A 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on recall error for the participant’s perception of the actor’s attitude towards Abortion revealed no significant effects between conditions. However, the same between subjects’ ANOVA conducted on recall error for the participant’s perception of the actor’s attitude towards protecting the environment revealed a main effect of choice on recall error, $F(1, 169) = 3.919, p = 0.049, \eta^2_p = 0.023$. Participants in the high choice condition ($M = -1.12$) recalled the actor as being less in favor of protecting the environment than those in the high choice condition ($M = -0.35$). The means for recall of the actor’s attitude towards the three issues are reported in table four. For comparison
purposes, participant’s perceptions of the actor’s attitude on the pre-test have been placed in the same table (see table 4).

**Correlation Between Recall Inference and Post-Manipulation Inference of Actor’s Attitude**

To further understand the relationship between participants’ pre-test and post-manipulation perceptions of the actor’s attitude and their recall of the attitude, correlations were run to test whether the post-manipulation perception of the actor’s attitude was better correlated with what participants’ recalled the actor’s attitude to be, compared to the correlation between the recall score and pre-manipulation perception of the actor’s attitude, as done in Goethals and Frost (1978). The correlation between the post-manipulation assessment of the actor’s attitude and recall score was $r = 0.596, p < 0.0001$, compared to the correlation between the participant’s pre-manipulation attitude and recall of the attitude, $r = 0.083, p = 0.279$. Since the results from the ANOVA indicated a main effect of choice on error recall, separate correlations were also conducted for both the high and low choice conditions. For the high choice condition, the correlation between the post-manipulation assessment of the actor’s attitude and recall score was $r = 0.569, p < 0.0001$, which contrasts the correlation between the pre-manipulation assessment of the actor’s attitude and error recall, $r = -0.093, p = 0.384$. For the low choice condition, the correlation between the post-manipulation assessment of the actor’s attitude and recall score was $r = 0.548, p < 0.0001$, while the correlation between the pre-manipulation assessment of the actor’s attitude and recall score was $r = 0.324, p = 0.003$.

**Subjective Measure of Actor’s Attitude Change**

The final question on the post-manipulation questionnaire asked participants to indicate the extent to which they believed that the actor had changed their attitude towards the Affordable Care Act. Recall that this measure was taken on a seven-point scale, with one (1) being no
change and seven (7) being completely changed (see Appendix E). A 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on subjective perception of the actor’s attitude change indicate main effects of both choice condition and of political party. Participants in the high choice condition ($M = 3.51$) were significantly more likely than participants in the low choice condition ($M = 2.88$) to believe that the actor had changed their attitude towards the ACA, $F(1, 169) = 4.418, p = 0.037, \eta^2_p = 0.025$. However, Democrats ($M = 2.94$) were less likely than Republicans ($M = 3.72$) to say that the actor had changed their attitude, $F(1, 169) = 5.305, p = 0.022, \eta^2_p = 0.030$. These means are reported below in table five.

**Observer’s Attitude Change**

To test hypothesis three, that observers would change their own attitude in the direction of the actor’s behavior if the actor was an in-group member, an attitude change score was calculated for each participant by subtracting their pre-test attitude score from their post-manipulation attitude score. As stated above, a negative score indicates change in attitude in the pro-Affordable Care Act direction, while a positive score indicates change in attitude in the anti-Affordable Care Act direction. A 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subject’s ANOVA was conducted on attitude change score, revealing a significant main effect of political party on attitude change. Overall, Democrats ($M = -0.38$) changed their attitude towards slightly against the Affordable Care Act (i.e. in the direction of the actor’s behavior), while Republicans became slightly more in favor of the Affordable Care Act ($M = 0.13$), $F(1, 169) = 4.809, p = 0.03, \eta^2_p = 0.028$. No significant effect of choice condition was found, as those in the high choice condition ($M = -0.20$) had nearly identical data to those in the low choice condition ($M = -0.20$), $F(1, 169) = 0.003, p = 0.955, \eta^2_p = 0.000$. 
Furthermore, regression analysis was conducted on attitude change scores, as done in Norton et al. (2003). Political party, choice condition, and party identification as reported on the pre-test were regressed as predictor variables on subject’s attitude change score. Results indicate that both political party and party identification are predictors of attitude change. Political party significantly predicts attitude change $B = 0.527, t(167) = 2.289, p = 0.023$, such that Republicans were more likely to change in favor of the Affordable Care Act, and the opposite effect for Democrats. Furthermore, party identification on the pre-test significantly predicts attitude change, $B = -0.143, t(167) = -2.477, p = 0.014$, such that those with increased party identification were more likely to change their attitude towards in opposition to the Affordable Care Act. Note that the same analysis was conducted again using post-manipulation party identification, political party, and choice condition as predictor variables on participants’ attitude change. These results indicate no significant effect of post-manipulation party, $B = -0.052, t(168) = -0.788, p = 0.432$ but a significant effect of political party $B = 0.515, t(168) = 2.222, p = 0.028$.

Although differences exist in the predictive ability of party identification between pre-test and post manipulation measures, we should note that all results previously reported in Norton et al. (2003) (as well as other vicarious dissonance studies, see Monin et al., 2004) always used a measure of identification measured during the pre-test, before the manipulations. To better understand the effect of pre-test identification on attitude change, two separate analyses were conducted for both Democrats and Republicans, examining the effect of pre-test party identification on attitude change (see Norton et al., 2003). For Democrats, results indicate a marginally significant effect of pre-test party identification on attitude change, $B = -0.125, p = 0.064$. For Republicans, results also indicate a marginally significant effect of pre-test party identification on attitude change, $B = -0.157, p = 0.093$. However, it is important to note that these results should be interpreted with caution due to the small sample size.
identification on attitude change, $B = -0.184$, $p = 0.105$. Thus, in both parties, increased identification with the party predicts attitude change against the Affordable Care Act.

**Effect of the Importance of the Issue on Observer Attitude Change**

As done with party identification, regression analysis was used to assess the effect of how important the Affordable Care Act was to participants on attitude change. The predictor variables were choice condition, political party, and importance of the Affordable Care Act on attitude change score. Results indicate no direct effect of political party or choice, but a direct effect of how important the Affordable Care Act was to each participant on attitude change, $B = -0.318$, $t(168) = -4.408, p < 0.0001$. Thus, the more important the Affordable Care Act was to participants, the more they changed their attitude in the direction of opposed to the Affordable Care Act.

**Perceived Consistency in Self for Those Having Changed Their Attitude**

To test the fourth, and final, hypothesis that individuals who have changed their attitude will misperceive consistency in their attitudes if they have changed, an attitude recall error score was calculated for each participant in the same manner as done for perception of the actor’s attitude (recall score minus pre-test score). A 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on participant error recall revealed no significant effects of political party or choice condition on participants’ attitude recall errors. However, given the low means reported by participants’ attitude change, regression analysis was conducted to see if participant attitude change predicts participant attitude recall errors. In other words, we were interested in whether those who did change their attitude (either for or against the Affordable Care Act) were likely to inaccurately recall their current attitude as consistent with their prior attitude. Thus, we conducted a simple linear regression of participant’s attitude
change score (post-manipulation attitude minus pre-manipulation attitude) on participant’s attitude recall error (recall score minus pre-manipulation attitude). Results indicated a significant effect of attitude change on recall error score, $B = 0.529$, $t(169) = 10.636$, $p < 0.0001$ (see figure three). Thus, participants who changed their attitude, either pro-Affordable Act or Anti-Affordable Care Act, were more likely to perceive their prior attitude as consistent with their current attitude.

**Observer’s Perceived Similarity to the Actor**

Measures of observers perceived similarity between themselves and the actor were taken on both the pre-test and during the post-manipulation questionnaires. A 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on pre-test perception of similarity to the Democratic candidate reveals, as expected, that Democrats ($M = 5.25$) felt more similar to the actor (a Democrat) than Republicans ($M = 3.60$) did, $F(1, 169) = 43.140$, $p < 0.0001$, $\eta^2_p = 0.203$. However, 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on post-test perception of similarity to the actor found a significant main effect of choice and a marginally similar main effect of political party. Democrats ($M = 4.20$) perceived themselves as more significant to the actor than Republicans ($M = 3.68$) did, $F(1, 169) = 3.219$, $p = 0.075$, $\eta^2_p = 0.019$. Overall, though, participants in the high choice condition ($M = 3.59$) perceived themselves as less similar to the actor than those in the low choice condition ($M = 4.49$), $F(1, 169) = 6.920$, $p = 0.009$, $\eta^2_p = 0.039$.

Comparable measures were also taken for participant’s post-manipulation perception of both how identified the actor was and representative he was of the Democratic Party. A 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) between subjects’ ANOVA on both measures revealed no significant differences between political parties for either measure.
Both measures, however, indicated that those in the high choice condition believed the actor to be less identified and less representative of the Democratic party than those in the low choice condition. On the identification measure, those in the high choice condition ($M = 5.23$) believed the actor to be less identified than in the low choice condition ($M = 5.73$), $F(1, 169) = 7.917, p = 0.005, \eta^2_p = 0.045$. Likewise, those in the high choice condition ($M = 5.13$) believed the actor to be less representative of the Democratic party than observers in the low choice condition ($M = 5.66$), $F(1, 169) = 6.754, p = 0.01, \eta^2_p = 0.038$. 
Chapter 4: Discussion

Results provide support for each of the four predictions made in this study. Of note is evidence supporting the main, novel, hypothesis that observers will recall the actor’s prior attitude as being consistent with their perception of the actor’s current attitude. In this chapter, we will first review and interpret the results in terms of each hypothesis. Next, we will integrate findings from each hypothesis and discuss them more broadly in terms of attribution, social comparison, and cognitive dissonance theories. We will also consider alternative explanations, limitations, and directions for future research before concluding with the theoretical, methodological, and practical significance of the present study.

Recall that four predictions were made concerning how observers would react to witnessing an actor engage in counter-normative behavior. For the first hypothesis, we expected that observers would attribute the actor’s counter-normative behavior to an attitude that was consistent with that behavior. Despite no significant differences found between choice conditions or parties on the pre-test, observers in the high choice condition believed that the actor was less in favor of the Affordable Care Act than observers in the low choice condition after imagining the actor give the anti-Affordable Care Act speech. In addition to statistically significant differences between conditions ($p < 0.001$), an examination of the means of both conditions reveals meaningful significance as well (see table three). Recall that the post-manipulation assessment of the actor’s attitude was measured on a scale of one (strongly opposed) to seven (strongly in favor) scale, with four being the midpoint on the scale indicating an opinion from opposed to the Affordable Care Act (one to three) to in favor of the Affordable Care Act (five to seven). The mean of the low choice condition was 4.72 while the mean of the high choice condition was 3.49, indicating that observers in the high choice condition perceived the actor to
now be opposed to the Affordable Care Act, while observers in the low choice condition now perceive the actor to be somewhat ambivalent towards the Affordable Care Act.

Notably, these post-manipulation inferences of the actor’s attitude differ for all participants from their initial inference of the actor’s attitude (see figure two). The repeated measures ANOVA with time (pre-test questionnaire and post-manipulation attitude measure) as a within subjects’ variable revealed a significant difference ($p < 0.0001$) between the two attitude measures. It should be noted that the effect size between the two measures is quite large ($\eta^2_p = 0.334$), indicating a meaningful shift for all participants in their perception of the actor’s attitude after giving the speech, relative to before he gave the speech. However, as stated above, observers in the high choice condition perceived the actor to be more against the Affordable Care Act than those in the low choice condition, which is reasonable given the success of the choice manipulation ($p < 0.001$, $\eta^2_p = 0.267$).

The second hypothesis, which built off the first hypothesis, was that observers would recall the actor’s original attitude as being consistent with their current attitude. Consistent with our findings from hypothesis one, participants in the high choice condition were more likely ($p < 0.0001$) to recall the actor’s initial attitude as being less in favor of the Affordable Care Act than those in the low choice condition. The correlation ($r = 0.596$, $p < 0.001$) between the recall of the actor’s attitude and the post-manipulation perception of the actor’s attitude was significant relative to the correlation ($r = 0.083$, $p = 0.279$) between the recall of the actor’s attitude and the pre-test perception of the actor’s attitude. Furthermore, the recall error score (recall of actor’s attitude minus pre-test perception of actor’s attitude) indicated that both conditions recalled the actor as being more opposed to the Affordable Care Act relative to their prior inference. Observers in the high choice condition ($M = -1.67$) had a significantly greater discrepancy ($p =$
0.002) between their recall and pre-test perception of the actor’s attitude towards the Affordable Care Act, compared to the low choice condition (\(M = -0.54\)). Note that participants in both conditions had discrepancies between the recall and pre-test measure, although the discrepancy was higher in the high choice condition.

It is worth noting that similar recall errors were found in observer’s perception of the actor’s attitude towards all three political issues. However, the effects were either not significant (Abortion) or barely significant (protecting the environment, \(p = 0.049\)), indicating that participants were more likely to inaccurately perceive consistency on the issue that had been manipulated (Affordable Care Act) relative to the other two issues. However, it should also be noted that for all three issues participants recalled the actor as being more opposed to the issue in the high choice than in the low choice condition. An examination of the mean differences between conditions (high and low choice) reveals a mean difference of -1.212 for the Affordable Care Act, -0.725 for abortion, and -0.65 for protecting the environment. These numbers indicate that observers in the high choice condition recalled the actor as being more opposed to the issue than those in the low choice condition. Therefore, while discrepancies occur between high and low choice conditions for all three issues, the discrepancy is greatest for the Affordable Care Act, which likely accounts for the statistically significant effect of choice condition on recall error for the Affordable Care Act but not for the other two issues. These findings lend support for the idea that recall errors were made because of the intended manipulations on the Affordable Care Act.

It does appear, however, that some change did occur in how the observers perceived the actor’s attitude on the other issues (Abortion and Environmental Protection), though to a lesser extent than the Affordable Care Act. This, however, is not unexpected given that the three issues are all political and it is reasonable to assume that another’s attitudes on these three issues would be
correlated. An individual who advocates against the Affordable Care Act may no longer be perceived as being as in favor of Environmental Protection as they once were, given that both issues are typically held by progressive individuals. However, the effect would likely be lesser for Environmental Protection than the Affordable Care Act, a trend supported in the data.

Contrary to predictions for the second hypothesis, no effect of political party was found on recall errors for any of the three political issues. For the Affordable Care Act, Democrats in the high choice condition ($M = -1.68$) were almost identical to Republicans in the high choice condition ($M = -1.64$) for their discrepancy between their recall and pre-test perception of the actor’s attitude. However, when participants were asked whether they believed the actor had changed, Democrats were less likely ($p = 0.03$) than Republicans to say that they believed that the actor had changed. Understandably, participants in the high choice condition were more likely ($p = 0.037$) to believe that the actor had changed than those in the low condition. Recall that this question was asked on a one (no change) to seven (completely changed) scale, and that all groups, with the exception of high choice Republicans were more likely to perceive the actor as not having changed than as changed (see table five). Although Democrats did not significantly differ from Republicans on their inference of the actor’s attitude or their recall of the actor’s prior attitude, they were still more likely to believe that the actor did not change than Republicans. This is likely indicative of a tendency to perceive consistency in in-group members, particularly in politics where there is a motivation to avoid being perceived as having changed one’s opinion. In other words, the motivation to perceive an in-group member as consistent appears to be a separate process from making a correspondent inference about the actor’s behavior as the parties do not significantly differ in their inference of the actor’s counter-normative behavior.
Somewhat surprisingly, while choice condition affected the attitude of the speaker, it did not affect the observer’s own attitude towards the Affordable Care Act, as might be expected in dissonance experiments. Recall that hypothesis three was that observers who viewed the actor as a valued in-group member would change their own attitude in the direction of the actor’s behavior. Again, results support this hypothesis as the attitude change score (post manipulation attitude minus pre-test attitude) was significantly ($p = 0.03$) different between Democrats ($M = -0.38$) and Republicans ($M = 0.13$). Recall that a negative score indicates change in the direction of the against Affordable Care Act, while a positive score indicates change of in favor of the Affordable Care Act. Thus, Democrats, on average, did change their own attitude slightly against the Affordable Care Act, while Republicans became slightly more in favor. Furthermore, the more important the issue was to the participants, the greater the attitude change towards opposition to the Affordable Care Act ($B = -0.318, p < 0.0001$). Lastly, the fourth hypothesis that participants who had changed their own attitude would perceive consistency in their attitudes was also supported by the data. Simple linear regression of attitude change score on participants’ error recall rate indicated a significant relationship between the two variables ($B = 0.529, p < 0.0001$). Thus, participants who changed their attitudes in the direction of less support for the Affordable Care Act were more likely to recall themselves as being opposed to the Affordable Care Act, and vice versa (see table two).

Lastly, it should be noted that despite the inference that the actor was against the Affordable Care Act, such a change did not have drastic effects on whether observers believed the actor was representative of the Democratic party or identified with the Democratic party. Observers in the high choice condition believed the actor was less identified ($p = 0.005$) and less representative ($p = 0.01$) of the Democratic party than those in the low choice condition. While
the results significantly differ between condition, the difference is relatively small. On both scales, a one (1) indicates not very identified/representative, while a seven (7) indicates very identified/representative. On identification, the means between high choice condition ($M = 5.23$) and low choice condition ($M = 5.73$) are relatively similar. Likewise, on representativeness, the means between high choice ($M = 5.13$) and low choice ($M = 5.66$) indicate that although a statistically significant difference was found, both parties were still more likely to perceive the actor as being a member of the Democratic party than not. A similar pattern emerges on the post-manipulation similarity measure shows that Democrats were slightly more similar ($p = 0.075$) to the actor than Republicans did, while those in the high choice condition perceived themselves to be less similar ($p = 0.009$) to the actor than those in the low choice condition.

**Integration of Results and Theory: Perception of the Actor’s Attitude**

Results indicate support, or partial support, for all four hypotheses in the study. Thus, the first goal of the study was achieved in examining the impact of misperceiving consistency of an actor’s attitude between two dissonant inferences. However, an analysis of the second aim of this study, to examine the role of the actor’s attitude in a vicarious dissonance paradigm is warranted. Thus, a relevant question is whether our results can be interpreted in accordance with the vicarious dissonance framework (Norton et al., 2003; Cooper & Hogg, 2007). While participants who imagined an in-group member engage in counter-normative behavior did move slightly against the Affordable Care Act, the mean attitude change ($M = -0.38$) is not enough to represent a meaningful change in attitude. Thus, unlike participants’ inference of the actor’s attitude, which does indicate meaningful change from pro-Affordable Care Act to anti-Affordable Care Act, participants own attitudes do not have appeared to change in the same meaningful manner, despite the statistical significance between the means of the two parties.
Furthermore, no effect of choice was found on participant’s attitude (a typical finding in dissonance research, Cooper & Fazio, 1984) despite the success of the choice manipulation. These results point to a similar pattern that has emerged in vicarious dissonance research. The original study on vicarious dissonance (Norton et al., 2003, study 1) employed a 2 (choice: high/low) x 2 (group: in-group/out-group) factorial design and only found a significant effect of group (in-group or out-group) and identification when regressed on attitude change score (calculated the same way as in the present study). As in the present study, the choice manipulation in Norton et al. (2003) study 1 was successful, but did not appear to affect participants’ attitude change. Norton et al. (2003) study 3 again manipulated choice using a stronger manipulation that increased the effect size of the manipulation. The conclusion that was drawn from these results was that, as in cognitive dissonance studies, choice is a necessary precursor for attitude change resulting from dissonance, whether personal or experienced vicariously (Norton et al., 2003).

Another explanation does exist, however, that explains why the choice manipulation would be successful, yet not affect observer attitude change in both the present study and Norton et al. (2003) study one. This explanation involves a consideration of findings from attribution theory, particularly the correspondence bias. As discussed previously in chapter one, individuals are biased to infer a correspondence between behavior and underlying attitudes, regardless of the situational constraints placed on the actor (Jones & Gilbert, 1986; Gilbert, & Malone, 1995). Recall that early studies of this phenomenon found that regardless of the degree of choice afforded the actor, individuals inferred correspondence between an actor’s attitude and behavior, particularly when the behavior was unexpected (low prior probability of occurring). While the correspondent inference was stronger in the high choice condition, such inference was still made
in the low choice condition, albeit to a lesser degree. As in the present study, these results occurred even with the success of a choice manipulation (Jones & Harris, 1967).

As described above, the results from the present study reveal a similar trend. Although participants in the high choice condition inferred the actor to be more anti-Affordable Care Act than those in the low choice condition, both conditions inferred the actor to be more against the Affordable Care Act than their initial perception of the actor’s attitude, as measured during the pre-test (see figure two). Thus, while the magnitude of the correspondent inference varied in conjunction with the perception of choice, an inference was still made in both conditions of either anti-ACA (high choice, $M = 3.49$) or ambivalent towards the ACA (low choice, $M = 4.72$), compared to the original pro-ACA inference (both conditions, $M = 5.96$). Although the choice manipulation was successful in both the present study and Jones and Harris (1967), it does not appear that such knowledge was taken into consideration as strongly as one might expect. Given that other attribution theories have argued that individuals tend to have greater insight into the situational constraints that affect their own behavior relative to the behavior of others (Jones & Nisbett, 1972), it is not surprising that observers did not take choice into account as would be expected. Rationally, observers who indicated that the actor had low choice in giving the speech would attribute the behavior to the situation, and not the actor’s underlying attitude. It is reasonable to expect, then, that observers might recognize the constraint but do not take it into consideration in their analysis of this behavior. This suggestion that “behavior engulfs the field” appears to be supported by the data, as initially suggested by Jones and Harris (1967).

Integration of Results and Theory: Observer’s Attitude Change

A likely scenario that could explain the results of the study is that observers infer that the actor’s attitude is consistent with the behavior (anti-Affordable Care Act) and change their own
attitude in the direction of the actor’s behavior if they perceive the actor to be a similar other. Recall that a main principle of social comparison theory is that individuals prefer to compare themselves to similar others to evaluate their own opinions and attitudes (Festinger, 1954). Goethals and Darley (1977) believe that such a comparison creates a situation in which “it will be difficult to account for the belief difference in terms of an internal characteristic that the consensus has but that he does not have”, thus indicating that a discrepancy in attitude between an observer and similar other (actor) would lead the observer to conclude that their attitude is incorrect (p. 270). The moderate correlation ($r = -0.248, p = 0.001$) in the data between similarity to the actor and participant attitude change on the Affordable Care indicates that observers who viewed the actor as a similar other changed their attitude to be consistent with the actor. 

Festinger (1957) argues that “the existence of disagreement among members of a group on some issue or some opinion, if perceived by the members, certainly produces cognitive dissonance” (p. 178). In this situation, observers can change their own attitude, attempt to change the other person’s attitude, or cease comparison to the actor through derogation (Festinger, 1957). As evidenced by the correlation between similarity and attitude change, observers opted to change their own attitude as, given the experimental design, were unable to change the actor’s attitude.

However, whether observers derogated the actor is worthy of consideration. On the post-manipulation questionnaire, participants were asked to identify the actor’s party. Note that they had been informed of the actor being a Democrat at the start of the session roughly five to seven minutes earlier, 47 participants identified the actor as a Republican, while the remainder identified him as a Democrat. An analysis of variance on participant attitude change score (see above) was conducted separately for participants who identified the actor as a Democrat and those who identified him as a Republican. For those who identified the actor as a Democrat, the
results showed the same trend as reported earlier, that in-group members ($M = -0.37$), changed their attitude in the direction of the actor’s behavior, while out-group members changed in the opposite direction ($M = 0.26$), $p = 0.024$. However, for those who identified the actor as Republican the effect on attitude change is no longer statistically significant between political parties ($p = 0.574$).

To better understand this change, we then conducted a 2 (Political Party: Democrat/Republican) x 2 (Choice: High/Low) x 2 (Similarity to actor: pre/post manipulation) repeated measures ANOVA. Again, this was conducted separately for those who identified the actor as a Democrat and those who identified him as a Republican. Results, indicate that Democrats who still identified the actor as a Democrat did believe they were slightly less similar after imagining the actor give the speech ($M = 4.69$) than before he had given the speech ($M = 5.26$), $p = 0.002$, $\eta^2_p = 0.078$. However, Democrats who identified the actor as Republican drastically changed how similar they perceived themselves to be to the actor before imagining him give the speech ($M = 5.21$) than on the post-manipulation questionnaire ($M = 2.42$), $p = 0.001$, $\eta^2_p = 0.231$. Based on these data, in-group members either changed their attitude in the direction of the actor’s behavior or ceased comparison, consistent with Festinger’s (1957) predictions.

The data presented here, then, can be best understood in terms of an integration between social comparison and cognitive dissonance theories. Festinger argues that “another way of reducing dissonance between one’s own opinion and the knowledge that someone holds a different opinion is to make the other person, in some manner, not comparable to oneself”, which can be achieved if the observers “reject him or derogate him” (Festinger, 1957, p. 182). Important here is the “knowledge”, or awareness, of the observer realizing that the observer no
longer holds an attitude that is consistent with the actor, which produces either attitude change or
derogation. Therefore, individuals, having attributed the actor’s behavior to an attitude consistent
with that behavior, either changed their own attitude as well or derogated the individual.

Note that this explanation differs from vicarious dissonance theory, which states that that
observers change their attitude even though the actor has not changed his own attitude, and thus
do not conform (Monin et al., 2004; Cooper & Hogg, 2007). However, for the present study, the
correlation between attitude change score for participants and perception of change in the actor
(post-manipulation inference minus pre-test inference) is 0.278 (p < 0.001). Thus, the more
participants infer the actor changing in favor (or against) the ACA the more they change in favor
(or against) themselves., thus supporting the conformity interpretation, which contradictor to
vicarious dissonance theory. As for the choice manipulation, Norton et al. (2003) acknowledge
that the lack of effect of choice on the earlier studies could be a result of a dispositional inference
and in later studies when the actor in the low choice condition is perceived as being coerced into
giving a counter-attitudinal speech, then choice is found to produce attitude change. Based on
their analysis and attribution theory it is plausible that if the study design could override the
observer’s natural tendency to make attributions based on internal, and not external,
explanations, then choice may have a significant effect on attitude change. This proposition,
however, is unable to be tested with the current data and is worthy of further research.

This is not to imply, however, that participants are not experiencing dissonance in the
present study. Several data that align with Festigner’s (1957) propositions supports dissonance
occurring. First, although choice condition did not impact attitude change, participant’s attitude
change varied as a function of how important they believed the Affordable Care Act to be. Thus,
the more important participants believed the Affordable Care Act was, the more they changed
their attitude against the Affordable Care Act ($B = -0.318, p < 0.0001$). This is consistent with one of Festinger’s (1957) predictions that the more important the issue is to the individual the greater the magnitude of dissonance and greater motivation to reduce the dissonance by changing one of the inconsistent cognitions. Second, and in relation to Festinger’s (1957) integration of social comparison theory and cognitive dissonance theory, discrepancy in attitudes between an in-group actor and observer will prompt the observer to either change their opinion in the direction of the actor’s behavior or cease comparison. As mentioned above, the data supports this proposition.

Here, we propose that the correspondent inference made by observers after witnessing the actor give a speech against the Affordable Care Act is now in violation with their previous perception of the actor’s attitude towards the Affordable Care Act. Again, although observers in the high choice condition believed the actor to be more anti-Affordable Care Act than the low choice condition, all participants differed significantly between their two inferences. Thus, when the observers were asked to try to recall the actor’s attitude for purposes of accuracy (the demand characteristic), implicit in this directive is the notion that there is one “true” attitude. Given that the participants had already publically committed to their post-manipulation correspondent inference, the prior inference is now dissonant to what they have just publically endorsed. According to cognitive dissonance theory, the cognition that is least resistant to change will change to restore consonance (Festinger, 1957). Presumably, this cognition would be the prior attitude attribution as this is the one that observers have not just committed to. Thus, observers restore consonance in their perception of the actor by forgetting their past inference and believing that the current inference is the “correct” one.
Implicit in this analysis is the notion that two inconsistent perceptions of another’s attitudes can be a source of dissonance for the observer, which can cause either attitude change or derogation for in-group members. This appears to occur outside of an in-group relationship with the actor as no significant difference between inferences of the actor’s behavior and on the pre-test or post-manipulation questionnaires were found between groups (political parties). Thus, one possible way of reducing the dissonance aroused from two inconsistent inferences would be to alter one’s recollection of the prior inference to make it consistent with the “new” or current inference. However, this would likely only occur if both inferences of the actor’s attitude are attributed to an underlying attitude consistent with the behavior. If one of the inferences is attributed to external causes (i.e. coercion) then this would likely not arouse dissonance in the observer since these two cognitions would no longer be inconsistent. For example, if a politician’s speech could be attributed to a need to win votes and not representative of his underlying attitude, then comparing two inferences of the actor’s behavior would not be dissonant, since one would could be attributed to external (situational) influences. There may be instances where it may even be more beneficial for an observer to attribute an actor’s behavior to the situation, particularly if doing so would serve the observer’s interests, such as derogating the individual. Again, this is worthy of further exploration and beyond the data analyzed in this study.

**Alternative Explanations**

A discussion of other possible explanations of the results presented in this study is warranted. Perhaps most important is whether observers truly forgot their initial inference of the actor’s attitude. One potential challenge to this is the notion that participants could remember their prior inference and were attempting to appear consistent. Tedeschi, Schlenker, and Bonoma
(1971) argue that cognitive dissonance can be understood as impression management, in that individuals do not necessarily change their attitude after engaging in counter-attitudinal behavior, but merely to appear consistent and credible to the experimenters. While it is possible that participants did not want to appear inconsistent, recall that the demand characteristics of the study were placed on accuracy of recall, not on consistency of recall. Furthermore, the final question of the post-manipulation questionnaire asked participants what they believed was the purpose of the study, which was originally used as an attention check. A fair number of the responses indicate that participants were aware the purpose of the study was to test their recall of the actor’s attitude. For example, participants report believing that the purpose of the study was to test “our memory if we remember what the campaign was before and how our opinions can change”. Several other participants mention believing the study was a memory test, indicating that they believed they were being assessed on accuracy of memory. Note that a similar interpretation of the data in relation to Tedeschi, Schlenker, and Bonoma (1971) was also made in Goethals and Reckman (1973) and appears to apply to the present study as well.

Another potential explanation arises on the question of whether individuals can truly forget a prior attitude or inference of another’s behavior. Recent research examining the difference between explicit and implicit attitude change has revealed differences in the extent of information required to change one’s attitude. Explicit attitudes are believed to be easier to change, relative to implicit attitudes, which are harder to change (Petty, Tormala, Briñol, & Jarvis, 2006; Ferguson, Mann, Cone, & Shen, 2019). Such work has been applied to cognitive dissonance research, finding that while engaging in a forced-compliance task did change participant’s explicit attitudes, result from an implicit association test (IAT) revealed no attitude change. Researchers concluded that, contrary to Bem and McConnell’s (1970) findings,
individuals could still remember their pre-test attitudes on an implicit level (Gawronski & Strack, 2004). While it is possible that participants in the present study would show similar results, the level of interest in the present study is on explicit, and not implicit, attitudes. Still, the potential change in implicit attitudes is a question worthy of further research that is beyond the scope of the present study.

**Limitations**

In discussing the generalizability of the present study, it is important to acknowledge several limitations. Notably, the online nature of the experiment is one limitation of the current study. While research on the use of online surveys tends to indicate reliable data (see Buhrmester, Talifar, & Gosling, 2018 for a recent review), some researchers still question its use. For instance, recent criticisms by prominent dissonance theorists have questioned whether online surveys can create a situation involving enough to engage participants to change their attitudes (see Aronson, 2019). In addressing this limitation several precautions were taken, as noted in the methods section, that are consistent with recommendations. For example, attention checks were used and only online workers with above a 95% HIT completion rate were recruited to participate in the study (Buhrmester, Talifar, & Gosling, 2018). Online surveys have benefits, including larger sample sizes, that aid in achieving the necessary statistical power for the analysis. For the specific purposes of the present study, recent studies on vicarious dissonance have been successfully conducted through mTurk using similar designs as the present study (Blackman, Keller, & Cooper, 2016; Cooper, Feldman, & Blackman, 2019). It is possible, though, that the effects would have stronger had the study been conducted in a laboratory setting, and is worthy of future investigation.
The second limitation pertains to the use of political parties as the group manipulation. Although doing so provided convenient, natural groups, one could argue that political parties are better defined as ideologies than groups. A wide range of research has shown that differences exist between political parties, especially in conservatives’ willingness to rationalize perceived changes, particularly in political settings (see Kay, Jimenez, & Jost, 2002). In much of the vicarious dissonance research, experimenters used naturally occurring groups (e.g. residential colleges) and the counter-attitudinal issue was not one that was attached to typical stance of a group. Since being in favor of or opposed to the Affordable Care Act is closely related to a specific political party, the actor espousing an anti-Affordable Care Act position (i.e. a Republican associated position) it may have had an unintentional impact on participant’s attitude change. This might explain why for both political parties, identification predicts attitude change in anti-Affordable Care Act direction, which differs from results reported in Norton et al. (2003), where identification predicts in-group attitude change in the direction of the actor’s behavior, and vice-versa for the out-group. Still, the design of the present study is consistent with recent research (Cooper, Feldman, & Blackman, 2019), but assessing the reliability of results in this study to another domain beyond politics is worthy of future research.

**Significance and Implications**

The present study provides support for the novel finding of observers misperceiving consistency in an actor who has changed their attitude. As two inconsistent inferences of the actor’s attitude would be dissonant, one route of dissonance reduction appears to be altering the prior inference of the actor’s behavior to be consistent with the current inference. Thus, the data presented in this study provide the opportunity for further research and refinement of this finding to test both the robustness and caveats of misperceiving an actor’s inconsistent attitudes and
behavior. Although recent research has focused on how individuals who behave counter-attitudinally are perceived (e.g. Brannon, Sacchi, & Gawronski, 2017; Herak, Martinie, & Kamiejski, 2018), this is the first study to examine what individuals perceive to be the actor’s “true” attitude when inconsistencies in attributions emerge. As previously noted, the results indicate that observers perceive the “true” attitude to be the actor’s most current attitude and misperceive consistency between the actor’s current and initial attitude. Furthermore, these effects impact not only the counter-attitudinal behavior that the participants imagined, but other correlated issues as well. All of this occurred without excessive derogation of the actor, as the majority of in-group members still believed the actor to be a member of the in-group and perceived only slight decreases in similarity. Thus, while the actor was believed to be slightly less representative and identified with the in-group, the differences were not drastic and the actor was still perceived to be more identified with the group than less identified.

From a methodological standpoint, the present study presents a new paradigm to study attributions of attitudes by separating the initial inference and the subsequent attribution over the course of a week, thus assessing the effect of memory and recall when an actor has behaved differently between the two sessions. From a practical perspective, this study suggests that situations may arise when an observer is unable to accurately remember the past attitude of another individual. Given the current political environment in which politicians and leaders appear to change their attitudes frequently, understanding why observers arrive at different conclusions about the same individual’s attitudes could prove useful in further understanding political divides that occur. One explanation, then, for why people continue to follow leaders who behave counter-normatively may be that they inaccurately recall their prior attribution of the individual’s attitude, not recognizing that attitude change has occurred.
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https://doi.org/10.1177/001872675200500402


### Tables

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<th>Republicans (n = 60)</th>
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Table 1. Pre-test means of participant’s attitudes on political issues by party.

* p < 0.0001
** p < 0.007
*** p < 0.003

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<th>Issue</th>
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<th>Republicans (n = 60)</th>
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Table 2. Pre-test means of participant’s perception of both candidate’s attitude towards each political issue and their confidence in their assessment of the candidate’s attitude.

* p < 0.05
** p < 0.01
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<td><strong>Low Choice Condition</strong></td>
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<td><strong>Total</strong></td>
<td>5.96</td>
<td>4.09</td>
<td>1.793**</td>
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Table 3. Participant’s perception of the actor’s attitude towards the Affordable Care Act on both the pre-test and post-manipulation questionnaires, broken down by choice condition.

* *p < 0.006
** **p < 0.0001

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<td>5.94</td>
<td>4.28\textsubscript{a}</td>
<td>-1.67\textsubscript{b}</td>
</tr>
<tr>
<td></td>
<td>Low Choice Condition (n = 83)</td>
<td>5.96</td>
<td>5.42\textsubscript{a}</td>
<td>-0.54\textsubscript{b}</td>
</tr>
<tr>
<td>Abortion</td>
<td>High Choice Condition (n = 90)</td>
<td>5.72</td>
<td>4.61\textsubscript{c}</td>
<td>-1.11</td>
</tr>
<tr>
<td></td>
<td>Low Choice Condition (n = 83)</td>
<td>6.02</td>
<td>5.42\textsubscript{c}</td>
<td>-0.60</td>
</tr>
<tr>
<td>Environmental Protection</td>
<td>High Choice Condition (n = 90)</td>
<td>6.11</td>
<td>4.99\textsubscript{d}</td>
<td>-1.12\textsubscript{e}</td>
</tr>
<tr>
<td></td>
<td>Low Choice Condition (n = 83)</td>
<td>6.15</td>
<td>5.72\textsubscript{d}</td>
<td>-0.35\textsubscript{e}</td>
</tr>
</tbody>
</table>

Table 4. Participant’s pre-test inference of the actor’s attitude, recall of the actor’s attitude, and error score (recall minus pre-test). Two values with the same letter in subscript indicate significant (p < 0.05) differences between means.
Table 5. Participant subjective perception of actor’s attitude change towards the Affordable Care Act. Subscript a signifies p = 0.37, subscript b signifies p = 0.022.

<table>
<thead>
<tr>
<th></th>
<th>High Choice Condition (n = 90)</th>
<th>Low Choice Condition (n = 83)</th>
<th>Total (by party)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democrats</td>
<td>3.16</td>
<td>2.71</td>
<td>2.94&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
<tr>
<td>(n = 113)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Republican</td>
<td>4.12</td>
<td>3.22</td>
<td>3.72&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
<tr>
<td>(n = 60)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (by condition)</td>
<td>3.51&lt;sub&gt;a&lt;/sub&gt;</td>
<td>2.88&lt;sub&gt;a&lt;/sub&gt;</td>
<td></td>
</tr>
</tbody>
</table>
Figures

Figure 1. Model of vicarious self-perception. Screenshot taken from Goldstein and Cialdini (2007, p. 484), see references for complete citation.

Figure 2. Participant’s perception of the actor’s attitude towards the ACA on the pre-test (initial), post-manipulation (final) and recall questionnaires, broken down by choice condition. Y-axis scale is one (1) strongly opposed to seven (7) strongly in favor.
Figure 3. Simple linear regression of participant’s attitude change score on participant’s attitude recall error score. Negative scores indicate anti-ACA and positive scores indicate pro-ACA.
Appendix A: Consent Forms

Consent Form – Session 1

You are being asked to take part in a research study of political campaigns. Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. If you have questions, please feel free to contact the researchers (listed below) for more information.

Purpose

The purpose of this study is to learn more about how people believe political campaigns evolve over time. The study will be in two parts. Part one will be today and part two will be conducted next week. You are free to opt out of the study at any time. Participation in today’s portion of the study does not bind you to participate in next week’s study. If you chose to participate, you will receive compensation for both today’s study and next week’s study.

The study should take approximately ten minutes to complete. If you agree to participate, the answers you provide will be used to influence future political elections and you will be asked to think about and give your opinion on certain sensitive political issues, such as abortion, healthcare, and immigration.

Contact Information

This research is being conducted by Kevin Kennedy and Dr. George Goethals of the University of Richmond. If you have any questions about the project, please contact Kevin Kennedy at kevin.kennedy@richmond.edu.

Possible Risks

The risks associated with this study are minimal. That is, the risks for completing this study are no more than the risks experienced in daily life. If you do experience any discomfort during the study, remember you can stop at any time without any penalty. You may also choose not to answer particular questions that are asked in the study.

Possible Benefits

You will receive compensation for participating in this study. You may get some satisfaction from contributing to this investigation.

Confidentiality of Records

Reasonable steps will be taken to ensure that your individual results will remain confidential. However, as with any research process, the risk of a breach of confidentiality is always possible. Nevertheless, to the best of the investigators’ abilities, your answers in this study will remain anonymous and confidential. Once the study is completed, we will completely “deidentify” our data. All identifiers will be removed from the identifiable private information and only then will the information be used for future research studies.

Use of Information and Data Collected

We will not tell anyone the answers you give us. Your responses will not be associated with you by name and the data you provide will be kept secure. What we find from this study may be
presented at meetings or published in papers, but your name will not ever be used in these presentations or papers.

**Protections and Rights**

If you have any questions concerning your rights as a research participant, you may contact the Chair of the University of Richmond’s Institutional Review Board (IRB) for the Protection of Human Subjects of Research at (804) 484-1565 or irb@richmond.edu for information or assistance.

**Statement of Consent**

The study has been described to me and I understand that my participation is voluntary and that I may discontinue my participation at any time without penalty. I understand that my responses will be treated confidentially and used only as described in this consent form. I understand that if I have any questions, I can pose them to the researcher. I have read and understand the above information and I consent to participate in this study by clicking “Continue.” Additionally, I certify that I am 18 years of age or older.

Participants will click:

“Yes, I agree; I wish to begin the study” (Continue) to start the study.

Or

“No, I do not agree; I do not wish to participate” to not participate.
Consent Form – Session 2

You are being asked to take part in a research study of political campaigns. Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. If you have questions, please feel free to contact the researchers (listed below) for more information.

Purpose

The purpose of this study is to learn more about how people believe political campaigns evolve over time. The study will be in two parts. Part one was completed last week and part two will be completed today. You are free to opt out of the study at any time. Participation in last week’s study does not bind you to participation in today’s study. If you chose to participate, you will receive compensation for today’s study as you did for last week’s study.

The study should take approximately fifteen minutes to complete. If you agree to participate, the answers you provide will be used to influence future political elections and you will be asked to think about and give your opinion on certain sensitive political issues, such as abortion, healthcare, and immigration.

Contact Information

This research is being conducted by Kevin Kennedy and Dr. George Goethals of the University of Richmond. If you have any questions about the project, please contact Kevin Kennedy at kevin.kennedy@richmond.edu.

Possible Risks

The risks associated with this study are minimal. That is, the risks for completing this study are no more than the risks experienced in daily life. If you do experience any discomfort during the study, remember you can stop at any time without any penalty. You may also choose not to answer particular questions that are asked in the study.

Possible Benefits

You will receive compensation for participating in this study. You may get some satisfaction from contributing to this investigation.

Confidentiality of Records

Reasonable steps will be taken to ensure that your individual results will remain confidential. However, as with any research process, the risk of a breach of confidentiality is always possible. Nevertheless, to the best of the investigators’ abilities, your answers in this study will remain anonymous and confidential. Once the study is completed, we will completely “deidentify” our data. All identifiers will be removed from the identifiable private information and only then will the information be used for future research studies.

Use of Information and Data Collected

We will not tell anyone the answers you give us. Your responses will not be associated with you by name and the data you provide will be kept secure. What we find from this study may be presented at meetings or published in papers, but your name will not ever be used in these presentations or papers.

Protections and Rights
If you have any questions concerning your rights as a research participant, you may contact the Chair of the University of Richmond’s Institutional Review Board (IRB) for the Protection of Human Subjects of Research at (804) 484-1565 or irb@richmond.edu for information or assistance.

**Statement of Consent**

The study has been described to me and I understand that my participation is voluntary and that I may discontinue my participation at any time without penalty. I understand that my responses will be treated confidentially and used only as described in this consent form. I understand that if I have any questions, I can pose them to the researcher. I have read and understand the above information and I consent to participate in this study by clicking “Continue.” Additionally, I certify that I am 18 years of age or older.

Participants will click:

“Yes, I agree; I wish to begin the study” (Continue) to start the study.

Or

“No, I do not agree; I do not wish
Appendix B: Session One Materials

Please answer the question below to begin the survey.

I'm not a robot

We are trying to understand people’s opinions towards political campaigns and how campaigns evolve over time. This study will be a two-part study: one part completed today and another completed in a week. You will receive an invitation to complete the second part of this survey in one week's time. You will receive compensation for completing this survey and for completing next week's survey as well.

First, we ask that you complete some brief demographic information. Please indicate below:

What is your mTurk worker ID?
This will be used to match your data from this study to the study next week

How old are you?

What is your gender?

- Male
- Female
- Other

Please indicate which state you are from:

What is your race/ethnicity?

- White
- Hispanic/Latínx
- African American
- Asian
- Pacific Islander/Native American
- Other

...
Which political party do you most identify with?

- Democrat
- Republican

How much do you identify with that political party?

One (1) indicates not very identified and seven (7) indicates very identified.

<table>
<thead>
<tr>
<th>Party Identification</th>
<th>1 - Not very identified</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very identified</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>

Please indicate your political orientation.
One (1) indicates very liberal and seven (7) indicates very conservative.

<table>
<thead>
<tr>
<th>Political Orientation</th>
<th>1 - Very Liberal</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very Conservative</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

How confident are you in your self-assessment of your political orientation? One (1) indicates not very confident, seven (7) indicates very confident.

<table>
<thead>
<tr>
<th>Confidence in Political Orientation</th>
<th>1 - Not very confident</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very confident</th>
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</tbody>
</table>

Now, for us to get a better understanding of your political opinions on certain issues, please rate your opinion on the following three issues.

One (1) indicates Strongly Opposed and seven (7) indicates Strongly in Favor.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Strongly Opposed</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Strongly in Favor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (Obamacare, mandate that everyone has healthcare)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Abortion (a women's right to choose)</td>
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<tr>
<td>Environmental Protection (government regulations to protect the enviroment)</td>
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</tbody>
</table>

Now, please also indicate how important each issue is to you.

Use a one (1) for not at all important to seven (7) very important scale.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Not at all important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (Obamacare, mandate that everyone has healthcare)</td>
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<td>Abortion (a women's right to choose)</td>
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<td>Environmental Protection (government regulations to protect the enviroment)</td>
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</tbody>
</table>
Finally, please indicate how confident you are in your opinion on each issue. Use a one (1) for not very confident to seven (7) for very confident scale.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Not very confident</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (ObamaCare, mandate that everyone has healthcare)</td>
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<td>Environmental Protection (government regulations to protect the environment)</td>
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</table>

Now, to better understand political campaigns, we are going to focus on one campaign in the upcoming 2020 election. For confidentiality purposes, we cannot tell you which campaign we are examining, but we can tell you that it is a race for an open seat in the United States House of Representatives in a suburban area of Central Florida. While we cannot use the actual names of the candidates, we can provide you with some information from their websites about how each candidate spends a typical day. Note that the names provided below for each candidate are aliases to protect their true identities.

Republican Candidate
"Michael is a small business owner who has a strong belief in following the rules and that hard work is a guarantee of success. As such, he has successfully built his business and is now enjoying the fruits of his labor. Michael spent yesterday at the office reviewing new retirement plans for his company as he believes it is his responsibility as a small business owner to provide this benefit for his employees if they wish to use it. After work, Michael picked up two children from their religious education class as he hopes that his children will come to value religion as much as he does."

Democrat Candidate
"David is a local high school teacher. Outside of his classroom responsibilities, he is head of the teachers’ union and runs a local non-profit dedicated to providing all people health care. Yesterday, David and his children spent the afternoon organizing a recycling drive in their neighborhood. While organizing the drive, he made sure to include all his neighbors as David believes that diversity is a key component of success in any endeavor. David prides himself on living in a diverse neighborhood that is respectful and welcoming to all."

Now that you know more about each candidate, we ask that you rate what you believe each candidate’s opinion is on the same three issues from above.

Please indicate what you believe Michael's opinion on each issue is below using a one (1) strongly opposed to seven (7) strongly in favor scale.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Strongly Opposed</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Strongly in Favor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (ObamaCare, mandate that everyone has healthcare)</td>
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<td>Environmental Protection (government regulations to protect the environment)</td>
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</tbody>
</table>
Please indicate how confident you are in your assessment of Michael's opinion using a one (1) not very confident to seven (7) very confident scale.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Not very confident</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (ObamaCare, mandate that everyone has healthcare)</td>
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<tr>
<td>Abortion (a woman's right to choose)</td>
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<tr>
<td>Environmental Protection (government regulations to protect the environment)</td>
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</tr>
<tr>
<td>Are you paying attention? If so, select &quot;very confident&quot;</td>
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</tr>
</tbody>
</table>

Now, please indicate what you believe David's opinion on each issue is below.

On the scale below, one (1) is for Strongly Opposed and seven (7) is for Strongly in Favor.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Strongly Opposed</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Strongly in Favor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (ObamaCare, mandate that everyone has healthcare)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abortion (a woman's right to choose)</td>
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</tr>
<tr>
<td>Environmental Protection (government regulations to protect the environment)</td>
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</tr>
</tbody>
</table>

Please indicate how confident you are in your assessment of David's opinion using a one (1) not very confident to seven (7) very confident scale.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Not very confident</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (ObamaCare, mandate that everyone has healthcare)</td>
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<tr>
<td>Abortion (a woman's right to choose)</td>
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<tr>
<td>Environmental Protection (government regulations to protect the environment)</td>
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</tr>
</tbody>
</table>

How similar do you believe that you are to Michael?

One (1) indicates not at all similar and seven (7) indicates very similar.

<table>
<thead>
<tr>
<th>Similarity</th>
<th>1 - Not at all similar</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very similar</th>
</tr>
</thead>
</table>

How similar do you believe that you are to David?

One (1) indicates not at all similar and seven (7) indicates very similar.

<table>
<thead>
<tr>
<th>Similarity</th>
<th>1 - Not at all similar</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>6</th>
<th>6</th>
<th>7 - Very similar</th>
</tr>
</thead>
</table>
In one or two sentences, please describe what you think that we are studying.

Thank you for your participating in this survey. You will receive an invitation to complete another survey in one week. We ask that you complete the next survey at your earliest convenience. You will be compensated an additional $1 for participating in next week’s survey.
Appendix C: Session Two High Choice Condition

Please indicate your mTurk worker ID:
This will be used to match your data from this study to last week's study.

In one or two sentences, please describe what the first part of this study (given last week) asked you to do.

Last week we asked you to state your opinion on several political issues as well as introduced you to the two candidates in the upcoming election for a seat in the House of Representatives in Central Florida, Michael and David. Recall that David is the Democratic candidate who works as a local high school teacher and Michael is the Republican candidate and is a small business owner.

Last week the candidates had their first town hall style debate. To give you a sense of how the debate went, we have copied a part of the transcript verbatim below.

We have included some reading comprehension questions in the survey so we ask that you pay close attention to the transcript.

MODERATOR: “To get a full understanding of the issues, I would like to start a devil’s advocate round of the debate. During this round, one candidate will have the chance to give a speech on a topic that is important to voters.

These speeches are always very effective in persuading members of the audience and I am sure that you will want to use clips of the speech in commercials before the election.

Are either of you willing to participate in this devil’s advocate round?”

DAVID: “Yes, I am willing to participate.”

MODERATOR: “Great. Our research suggests that there are several issues that will become important to voters in the upcoming election. These issues are abortion, environmental protection, and the Affordable Care Act.

Now David, of the issues that I listed, is there one you would like to make a speech about?”

DAVID: “Let me think… I would be willing to speak against the Affordable Care Act”

MODERATOR: “Very nice choice. I believe that the voters are eager to hear what you want to say on the Affordable Care Act. Remind to the members of the audience that the Affordable Care Act is the same thing as Obamacare.

I should clarify, though, that you do not have to give the speech and you will not be penalized in the debate for not doing so. Knowing this, are you still willing to give a speech against the Affordable Care Act?”

DAVID: “Thank you, but I am happy to give a speech against the Affordable Care Act”

When you have completed reading the transcript, please move on to the next page.
Appendix D: Session 2 Low Choice Condition

Please indicate your mTurk worker ID:
This will be used to match your data from this study to last week’s study.

In one or two sentences, please describe what the first part of this study (given last week) asked you to do.

Last week we asked you to state your opinion on several political issues as well as introduce you to the two candidates in the upcoming election for a seat in the House of Representatives in Central Florida, Michael and David. Recall that David is the Democratic candidate who works as a local high school teacher and Michael is the Republican candidate and is a small business owner.

Last week the candidates had their first town hall style debate. To give you a sense of how the debate went, we have copied a part of the transcript verbatim below.

We have included some reading comprehension questions in the survey so we ask that you pay close attention to the transcript.

MODERATOR: “To get a full understanding of the issues, I would like to start a devil’s advocate round of the debate. During this round, one candidate will have the chance to give a speech on a topic that is important to voters.

These speeches are always very effective in persuading members of the audience and I am sure you will want to use clips of the speech in commercials before the election.

David, I have chosen you for this round.”

DAVID: “Ok”

MODERATOR: “Our research suggests that there are several issues that will become important to voters in the upcoming election. These issues are abortion, environmental protection, and the Affordable Care Act.

As moderator, I have decided that the Affordable Care Act, also known as Obamacare, will be the issue that you will talk about.

David, please give a speech against the Affordable Care Act”

When you have completed reading the transcript, please move on to the next page.
Appendix E: Session 2 Post-Manipulation Questionnaires

For confidentiality reasons, we cannot give you David’s speech, but we do ask that you take 1-2 minutes to try and imagine what David might have said against the Affordable Care Act.

*Note you will be able to move forward in the survey after 2 minutes.*

Please answer the following reading comprehension questions.

How much choice do you believe David had in making the speech?

*One (1) indicates very low choice and seven (7) indicates very high choice.*

<table>
<thead>
<tr>
<th>1 - Very Low Choice</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very High Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice in making the speech</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Which issue was David’s speech on?

- [ ] Campaign Finance Reform
- [ ] Affordable Care Act
- [ ] Environment Protection

Was David's speech *for* or *against* the issue you selected above?

- [ ] For
- [ ] Against

After imagining David give the speech, what is your opinion on the Affordable Care Act?

*One (1) indicates Strongly Opposed to the Affordable Care Act and seven (7) indicates Strongly In Favor.*

<table>
<thead>
<tr>
<th>1 - Strongly Opposed</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Strongly In Favor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your opinion on the Affordable Care Act</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After imagining David give the speech, what do you believe David's opinion is on the Affordable Care Act?

*One (1) indicates Strongly Opposed to the Affordable Care Act and seven (7) indicates Strongly In Favor.*

<table>
<thead>
<tr>
<th>1 - Strongly Opposed</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Strongly In Favor</th>
</tr>
</thead>
<tbody>
<tr>
<td>David's opinion on the Affordable Care Act</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
After imagining David give the speech, how confident are you in your assessment of David's opinion?

One (1) indicates *not at all confident* and seven (7) indicates *very confident.*

<table>
<thead>
<tr>
<th>1 - Not at all confident</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence in David's opinion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After imagining David give the speech, how confident are you in your assessment of your own opinion?

One (1) indicates *not at all confident* and seven (7) indicates *very confident.*

<table>
<thead>
<tr>
<th>1 - Not at all confident</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence in your own opinion</td>
<td></td>
<td></td>
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</tbody>
</table>

Prior research indicates that people often do not take online surveys very seriously.

To see how seriously you have taken this survey, we would like you to try and fill out the following questions exactly as you did last week.

We will be checking your answers to these questions against your prior answers to ensure accuracy.

Please try to recall how you rated your opinion on the following three issues.

One (1) indicates *Strongly Opposed* to the issue and seven (7) indicates *Strongly In Favor*.

<table>
<thead>
<tr>
<th>1 - Strongly Opposed</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Strongly In Favor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (ObamaCare, mandate that everyone has healthcare)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Abortion (a women's right to choose)</td>
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<tr>
<td>Environmental Protection (government requisitions to protect the environment)</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate how confident you in how well you remembered your opinion.

One (1) indicates not very confident and seven (7) indicates very confident.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Not very confident</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (ObamaCare, mandate that everyone has healthcare)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Environmental Protection (government regulations to protect the environment)</td>
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<td></td>
</tr>
</tbody>
</table>

Please try to recall how you rated David’s opinion on the following three issues.

One (1) indicates Strongly Opposed to the issue and seven (7) indicates Strongly In Favor

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Strongly Opposed</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Strongly In Favor</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abortion (a women’s right to choose)</td>
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</tr>
<tr>
<td>Environmental Protection (government regulations to protect the environment)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please indicate how confident you are in how well you remembered your assessment of David’s opinion.

One (1) indicates not very confident and seven (7) indicates very confident.

<table>
<thead>
<tr>
<th>Issue</th>
<th>1 - Not very confident</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Care Act (ObamaCare, mandate that everyone has healthcare)</td>
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<td></td>
<td></td>
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<td>Abortion (a women’s right to choose)</td>
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</tr>
<tr>
<td>Environmental Protection (government regulations to protect the environment)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you are paying attention, please select “very confident”</td>
<td></td>
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</tr>
</tbody>
</table>
Next, please answer the following questions which will help us learn more about how you view the candidates.

What party is David a member of?
- Democrat
- Republican

How much do you believe that David identifies with his political party?
One (1) indicates not very identified and seven (7) indicates very identified.

<table>
<thead>
<tr>
<th>1 - Not very identified</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>David's Party Identification</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

How representative is David of that party?
One (1) indicates not at all representative and seven (7) indicates very representative.

<table>
<thead>
<tr>
<th>1 - Not at all representative</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>David's Representativeness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What party is Michael a member of?
- Democrat
- Republican

How much do you believe that Michael identifies with his political party?
One (1) indicates not very identified and seven (7) indicates very identified.

<table>
<thead>
<tr>
<th>1 - Not very identified</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael's Party Identification</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

How representative is Michael of that party?
One (1) indicates not at all representative and seven (7) indicates very representative.

<table>
<thead>
<tr>
<th>1 - Not at all representative</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael's Representativeness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Which party are you most identified with?
- Democrat
- Republican

How much do you believe that you identify with your political party?
One (1) indicates *not very identified* and seven (7) indicates *very identified*.

<table>
<thead>
<tr>
<th>1 - Not very identified</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Party identification</td>
<td>-o</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How representative are you of that party?
One (1) indicates *not at all representative* and seven (7) indicates *very representative*.

<table>
<thead>
<tr>
<th>1 - Not at all representative</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Representativeness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How similar do you believe you are to Michael?
One (1) indicates *not very similar* and seven (7) indicates *very similar*.

<table>
<thead>
<tr>
<th>1 - Not very similar</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very similar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similarity to Michael</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How similar do you believe you are to David?
One (1) indicates *not very similar* and seven (7) indicates *very similar*.

<table>
<thead>
<tr>
<th>1 - Not very similar</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Very similar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similarity to David</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Do you believe that David's opinion on the Affordable Care Act has changed while participating in this study?
One (1) indicates *not at all* and seven (7) indicates *completely changed*.

<table>
<thead>
<tr>
<th>1 - Not at all</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 - Completely changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>David's Opinion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Do you believe that your opinion on the Affordable Care Act has changed while participating in this study?

One (1) indicates not at all and seven (7) indicates completely changed

<table>
<thead>
<tr>
<th>7 - Completely changed</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1 - Not at all</th>
<th>Your Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>