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Emily Hanson

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WASHINGTON UNIVERSITY IN ST. LOUIS  
Division of Psychological and Brain Sciences

On the Ironic Effects of Being Empathic: Consequences for Attitude Polarization and Intergroup  
Conflict

by  
Emily J. Hanson

A thesis presented to  
The Graduate School  
of Washington University in  
partial fulfillment of the  
requirements for the degree  
of Master of Arts

May 2017  
St. Louis, MO

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Dedicated to Henry Youn, forever loved and missed.

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*May 2017*



## **Abstract**

Empathy is frequently presented as the solution to intolerance; indeed, President Obama has cited an ‘empathy deficit’ in the conversation surrounding civil rights for minorities, women, and the LGBTQ community (Obama, 2006 ). However, an emerging psychological literature offers a “darker side” of empathy, which accounts for the parochial forces influencing empathic-motivations. Across two studies, the present thesis aims to further understand the parochial nature of empathy in the context of ideologically-based attitudinal polarization. In the first experiment, participants read about a hypothetical instance of heterosexual date rape, and provided their opinions on the male and female targets. Results supported an empathy-driven polarization model, which shows that the tendency for participants who endorse rape myths to blame the female target and support the male was even more pronounced among those scoring high in dispositional empathy. The second study aimed to experimentally manipulate the salience of rape myth beliefs; however, this was accomplished to limited effect. Importantly, the results replicated the previous pattern of findings with respect to empathy-driven polarization. Implication of this model, and future directions are discussed.

## Introduction

Intuition and common sense tells us that empathy is a good thing to have. For example, we expect empathic individuals to “connect” to others as fellow human beings, and to be less likely to rely on stereotypes and prejudice when responding to others. We also expect empathic individuals to be open-minded and to be more likely to accept perspectives that differ from their own. This intuitive view of empathy is nicely summarized in the following passage by Blankenhorn (2015):

*Of the intellectual trends that encourage polarization, one of the most important is the belief that society is divided into two mutually incompatible groups—the group of me and those like me who stand for truth, justice, and virtue, and those not like me who stand for the opposite. Probably the most powerful antidote to this increasingly popular but deeply wrongheaded way of seeing the world is empathy.*

As unlikely as this might seem, however, psychological research has suggested that empathy might have a dark side. As I will discuss in more detail ahead, this “dark side” of empathy is rooted in an important aspect of the empathy construct: People tend to be rather “choosy” in terms of the kinds of people (or causes) that are deemed to be worthy of our compassion and care. As Bloom (2016) has noted, there appears to be an inherent directionality in our judgments about who is deserving of empathy, which is driven by preexisting opinions and mores. This emerging perspective emphasizes the group-based motivations that may act as underlying forces in the formation of empathic alliances. The purpose of this thesis will be to explore this new conceptualization of empathy as it applies to different types of empathic primes and to clarify the mechanisms by which we determine who is deserving of empathy. This thesis will begin with a discussion of how empathy has been defined in psychology, provide a brief

review of the extant literature on empathy, as well as the emerging literature on parochialism, and propose two possible criteria for the selection of empathic targets.

### **Defining the Construct**

The term *empathy* (and related terms, *such as sympathy or compassion*) is used widely throughout the psychological literature; however, empathy can have different meanings in different contexts. For this reason, it is important to clearly define my terminology. In the present paper, terms involving *empathy* and any variant thereof (e.g., *empathic concern*) always refers to a relatively stable quality of the person (i.e., an individual difference or personality variable). As will become apparent later, I was particularly interested in empathic concern, which represents an important component of empathic personality, as delineated by Davis (1983). Hence, in the context of my paper, empathy/empathic concern represents an *independent variable*, that is, something that is used to predict the kinds of reactions that participants might have to someone or something.

A different set of descriptors are used in the context of assessing *dependent variables*, that is, participants' reactions to a specific target person. In those cases, I use terms that are more typically associated with impression formation or other kinds of reactions to a specific individual, such as *feelings, responses, or judgments*. Although this terminology is somewhat arbitrary, it avoids needless confusion and helps to clarify what constructs are being used as independent versus dependent variables. For example, when referring to the kinds of reactions to a victim of date rape (see ahead), I shall use terminology such as “emphatic participants tended to respond more favorably to the female target compared to less empathic participants”, with the understanding that *empathic* refers to a stable quality of the participant (the independent variable) whereas the response in question refers to the dependent variable.

## **A Note about Empathic Concern (EC)**

As noted above, the main focus on empathy—conceptualized as an individual difference variable--was on *empathic concern* (hereinafter, EC). EC matches that kind of picture we have in our heads of a genuinely compassionate person, especially in terms of someone who cares deeply about other people who are going through troubling experience. EC represents one of the major components of empathy delineated by the Interpersonal Reactivity Index (IRI; Davis, 1983). The IRI is easily the most widely-employed individual difference measure of empathy, and has been cited over 3,000 times. In addition to EC, the IRI delineates three additional components of empathy, including perspective taking (PT), personal distress (PD), and fantasy (FS). Importantly, Davis (1983) does *not* conceptualize these four components as orthogonal to each other. Indeed, each one of these components is moderately correlated with the other three, for example EC and PT are correlated at  $r = .33$ .

When I first began research in this area, I always examined the role of all four components in separate analyses. For example, if I was interested in the potential interaction of empathy with social dominance orientation, my initial approach would be to conduct four distinct and separate set of regression analyses, in the service of testing for the presence of four different types of interactions (i.e., SDO x EC, SDO x PT, SDO x PD, and SDO x FS). Over the course of this research, I have continuously found replicable, robust interaction effects with EC, not only with SDO, but with other types of ideological values as well (e.g., rape myth acceptance). However, the other three components of empathy (i.e., PT, PD, FS) tended to yield less stable results. For this reason, my masters project was focused on EC.

## Parochialism and Empathy

In an earlier section, I made reference to the inherent “choosiness” of empathy, as dictated by the perceiver’s a priori preferences (e.g., whether they happen to be liberal or conservative). Previous scholars have used the term *parochialism* to refer to such selectivity (De Dreu, 2012; Sheng, Liu, Zhou, & Han, 2013), and I use this term in similar fashion here. The parochial nature of empathy has been illustrated in a variety of experimental paradigms.

For example, Gutsell and Inzlicht (2010) found that participants displayed similar activity in the motor cortex when they moved and as when they watched a member of their ingroup moved. This indicated that participants showed activation patterns in response to an ingroup member as if it were the self, which was interpreted as kind of neurological empathy (cf. Titchener, 1909). No such motor cortex activity was observed when watching an outgroup member move, particularly in they were a member of a disliked outgroup. Xu, Zou, Wang & Han (2009) found support for ingroup biased empathy in a study which monitored activity in the inferior frontal/insula cortex and the anterior cingulate cortex (ACC) while watching a target experiencing pain. Both the frontal/insula cortex and the ACC are a part of the pain matrix, which is activated during the experience of first-person pain and when feeling empathy for pain experienced by another person. This study found that these regions of the brain showed increased activation when viewing a target in pain who belonged to the participants’ racial ingroup; however, activation decreased in the ACC when viewing a member of a racial outgroup experiencing the same pain.

A related study by Decety, Echols, and Correll (2010) explored this pattern of empathic activation in the context of disease. In all conditions of this study, participants viewed an age-matched target experiencing pain. In the control condition, the target was described as healthy; in

the two experimental conditions, the target was said to have contracted AIDS from either a bad blood transfusion or intravenous drug use. Participants showed a significant reduction of activity in the pain matrix in the drug use condition, as compared with the control and blood transfusion conditions.

Social psychologists have also found evidence for biased empathic responses. Stürmer, Kropp and Siem (2006), found similar evidence of parochial empathy with a German sample, using culture as the relevant group. Participants read a description of a confederate who was either a member of their cultural ingroup (German) or an outgroup member (Muslim), and later received an email from this confederate in which he or she described some personal problem. Participants were asked how willing they would be to help the confederate with this problem. The findings showed “empathy had a stronger effect on helping intentions when the helper and the target belonged to the same cultural group than when they belonged to a different group,” (Stürmer, Kropp and Siem, 2006, p. 94).

A study by O’Brien and Ellsworth (2012) measured the degree to which personal discomfort would influence judgments of target discomfort. During winter in Michigan, participants were approached either outside or inside and asked to read a short story. The story concerned a target, described as either a Democrat or Republican, getting lost in the woods with no food or water. Participants were asked to rate the degree of discomfort, hunger, and thirst the target experienced and report their own political ideology. The results indicated the cold or warm conditions of the participants’ physical location only influenced judgment of the target’s discomfort if they belonged to the same political party.

Jamil Zaki (2014) published an extensive review in which he proposed a motivated model of empathy that frames the evaluation of whether a target or situation is deserving of

empathy around the costs and benefits that encourage emotional approach or avoidance. In general, individuals will tend to approach situations likely to result in positive affect and avoid experiencing pain. In the context of motivated empathy this would mean that a participant is more likely to feel empathy for a target if that emotional experience is not costly or painful, and serves to increase the participants positive affect.

Zaki (2014) provides dozens of examples of experimental evidence for this motivated account. For example, studies have found that to avoid pain, participants will avoid interacting with handicapped and depressed targets (Coyne, 1976; Pancer, McMullen, Kabatoff, Johnson, & Pond, 1979) and are less likely to engage in volunteer work (Davis et al., 1999). Studies have shown that to avoid cost, participants are more likely to avoid emotional information about a target if they know a donation will be requested (Shaw, Batson, & Todd, 1994). To approach and/or achieve affiliation, participants who had previously experienced rejection were more likely to judge a target as friendly (Maner, DeWall, Baumeister, & Schaller, 2007). Additionally, participants were more likely to dehumanize outgroup targets when primed with close friends, as opposed to distant others (Waytz & Epley, 2012).

Zaki's motivated empathy model provides an explanatory framework for what drives a person to feel or not feel empathy (e.g., the avoidance of cost and desire to affiliate). However, what remains unclear is the mechanism by which people decide what targets will serve those goals. Given previous studies about parochial influences on empathy, two possible selection criteria are proposed: group membership and social schemas.

## **Operationalizing Parochialism: What is the Best Way to Measure “Vested Interests” of the Perceiver?**

In a general sense, the preceding discussion is based on one core idea: dispositional empathy will tend to amplify or intensify whatever “vested interests” the perceiver might have at the time. In the present context, I use *vested interests* in a deliberately broad way, to simply refer to any set of values or beliefs towards which the perceiver is committed and which they are motivated to defend and justify. In the case of political ideology, for example, our model suggests that empathic conservatives should tend to be more sympathetic towards conservative “causes” compared to conservatives who are less empathic. By the same token, empathic liberals should tend to be more sympathetic towards liberal “causes” compared to liberals who are less empathic. The net result of this process is greater polarization between conservatives and liberals if they are empathic than if they are not.

This represents just one example of how empathy can lead people to become more parochial in terms of how they respond to their world, intensifying their reliance on whatever “worldview” they might hold. In the preceding example, vested interest was framed in terms of political values (i.e., conservatism or liberalism), a type of individual difference variable. Of course, one could have also operationalized vested interest in terms of whether participants affiliated themselves with political groups (i.e., Republicans versus Democrats).

Operationalizing vested interest in terms of “group membership” has at least one important disadvantage: loss of information. In particular, dichotomizing participants into binary classifications, such as Republican or Democrat, sacrifices a great deal of information about intragroup variability. In other words, labelling someone as a Republican treats everyone in that category as functionally identical, ignoring that people vary within such categories in the types



of values and attitudes they hold. For this very reason, one often gains more leverage by defining “vested interest” in terms of individual differences in ideology/values, rather than group membership.

This issue was relevant in the context of my master’s thesis, which focused on participants’ reactions towards a “date rape” scenario involving a male and a female. When I first began work in this area, I considered the possibility of framing vested interest in terms of the gender of the participant. That is, it seemed reasonable to suppose that, on the average, female participants would have greater motivation to support the woman compared to the man, with male participants showing the reverse pattern. If so, one then could use this as a basis for expecting an interaction effect involving (dispositional) empathy and gender. More concretely, one might expect dispositional empathy to further intensify whatever differences might normally arise between male versus female participants in terms of their reactions towards the date rape scenario.

However, the preceding line of reasoning makes a rather strong assumption, in that it critically assumes that classifying participants into two groups—male versus female—provides a reliable way of “marking” participants in terms of their motivational stance regarding date rape (i.e., whether they would tend to support the woman or the man). On a conceptual level, there is some justification for taking this approach, especially in terms of theory and research on ingroup favoritism (Tajfel, 1981). Yet, there may be instances in which operationalizing motivational stance in terms of group membership may not work, to the extent that there is too much within-category variability in terms of participants’ motivations. This, in fact, what turned out to be the case in my own research.

In particular, I found that the gender of the participant *per se* was not a particularly strong predictor of how participants responded to the date rape scenario (gender did predict participants' responses to a minor extent, it is just that these effects were relatively weak). In contrast, the kinds of stable, personality-like beliefs that participants hold about date rape turned out to be a much better way of operationalizing vested interest. Consequently, "vested interest" in this research was operationalized in terms of *individual differences* in participants' own acceptance (or rejection) of date rape myths, and I then tested the predictions of the empathy model using the former as a way of operationalizing vested interest.

### **Preliminary Studies**

Because my masters project was stimulated by some provocative findings previously obtained in our lab (Hanson, Peak, Eadeh & Lambert, 2017), it is useful to briefly summarize the implications of some of that work here. In one set of studies, Hanson et al. (2017), examined reactions to the 2014 shooting of Michael Brown (an unarmed Black teenager) by Officer Darren Wilson (a White police officer). Two studies were conducted on MTurk (Ns=112 and 212); both tested the hypothesis that the interaction between dispositional empathy and ideology would drive polarization in attitudes. Consistent with this hypothesis, any existing polarization between liberals and conservatives (measured using Social Dominance Orientation; Pratto, Sidanius, Stallworth, & Malle, 1994, and Right-Wing Authoritarianism; Altemeyer, 1998) was even more extreme among participants scoring high in empathic concern (EC; Davis, 1983). For example, in the case of responses towards Darren Wilson, an Ideology x Empathy interaction was observed, such that the tendency for conservatives to support him was even more pronounced among those scoring high in EC. A parallel interaction emerged for liberal participants' reactions towards Michael Brown. A conceptually analogous set of findings were obtained in a follow up

study which asked participants to provide their evaluation of a homosexual man suffering from AIDS. In particular, the expected tendency for liberals (versus conservatives) to express more favorable impressions of the target was even more accentuated if participants happened to score high in EC than if they scored low.

These preliminary findings provide support for the motivated empathic responding proposed by Zaki (2014). More importantly, they provide, to our knowledge, the first evidence of an interaction between ideological beliefs and dispositional empathy. Across two contexts, I was able to show that ideological polarization is amplified among participants who scored high in dispositional empathy. Although this finding was exciting, there are clear flaws in the design that needed to be addressed in further studies.

Perhaps the most notable problem was the use of real world events, which creates a tradeoff between realism and experimental control. The use of a real event, such as the shooting in Ferguson, can have many advantages, including heightened interest and emotional investment; however, there are also substantial drawbacks. Primary among these is that participants almost certainly will have formulated their own opinions about the event prior to being in this study. As a result, studies using real world events and/or people involve a considerable loss in experimental control.

Further, participants may systematically vary in how and where they got their information about various topics, including the shooting in Ferguson. For example, liberals and conservatives often view separate news networks, read different publications, and speak to many similarly minded people. These considerations make clear that despite their intrinsic interest, using a real-world event requires the experimenter to cede a large degree of experimental control. This can complicate interpretations, thus the studies presented endeavor to avoid this

issue and further strengthen the model of empathy-driven polarization by using exclusively hypothetical targets.

### **The Present Research**

The present research aims to extend previous findings by testing the model outside of the realm of political ideology, while using hypothetical targets. In both of the experiments reported here, participants read about and responded to a hypothetical instance of date rape, in which the events were purposefully ambiguous to allow for varied interpretation. Based on previous results, an interaction between the endorsement of relevant ideologies, in this case myths about rape, and dispositional empathy was hypothesized. Specifically, I predicted that participants who endorsed rape myths would “side” with the male target and dislike the female target, with the reverse being true for participants who did not endorse rape myths (see Figure 1). The predicted interaction between empathy and rape myths would result in participants who score high in empathic concern showing more extreme favoritism toward ideologically-consistent targets.

### **Experiment 1**

The present experiment tested the merits of my working framework using a design containing two categorical variables pertaining to gender (participants, as well as the identity of the persons being judged) and two primary individual difference variables, empathic concern (EC) as well as rape myth acceptance (RM).

Before turning to the methodology, it is helpful to briefly discuss how I handled one aspect of data collection. MTurk allows for the collection of relatively more diverse samples compared to those obtained with convenience samples of college students obtained through university participant pools (Huff & Tingley, 2015). However, MTurk samples tend to contain more women compared to men (Hitlin, 2006). In the context of my research, these issues of

gender imbalance were more important than might ordinarily be the case. In particular, aside from the general focus of my research on gender-related issues (i.e., date rape), my design included a within-participant manipulation of the gender of the target (i.e., whether the person being judged was male versus female). For this reason, it was important that I have equal numbers of male and female participants in my sample.

Fortunately, there are relatively discrete ways of accomplishing this goal, using approaches that do not “tip off” participants in advance as to the focus of my research on gender. In Experiment 1, I used a strategy that is fairly common to researchers using MTurk. Participants were informed in advance (i.e., prior to presentation of informed consent) that they would be completing a short (i.e., 10 second) demographic “screener” to determine their eligibility in the research. After agreeing to complete this screener, participants were then presented with a randomized set of questions about gender in addition to other standard demographic queries (i.e., race, age, political affiliation, and level of education). As expected, the number of required female participants “filled up” faster than male participants. After I had met my quota for female participants, I modified the screener such that only male participants were allowed to continue. At this point, female participants received an automated response that they had “not met the demographic requirements for this study” and the session was terminated. (Experiment 2 used a somewhat more elegant way of achieving this gender balance, see ahead for further elaboration).

## **Method**

### **Participants and Design**

A total of 539 residents of the United States (274 female) were recruited through Amazon Mechanical Turk in return for a small gift voucher. The design consisted of two categorical

variables pertaining to gender (participant gender and target gender) and two primary individual difference variables (empathic concern and rape myth acceptance).

## **Materials and procedures**

After completing the 10-second demographic screen (see above), participants were presented with a standard informed consent. Next, participants completed a randomized presentation of a number of different individual difference measures, including (a) the Affective Intensity Measure (Larsen, 1984), (b) Dispositional Positive Emotions Scale (Shiota, Keltner & John, 2006), (c) the Empathic Concern and Perspective-Taking subscales of the Interpersonal Reactivity Index (Davis, 1983), (d) Need for Affect (Maio & Esses, 2001), (e) Open-Minded Cognition (Price, Ottati, Wilson, & Kim, 2015), (f) Right-Wing Authoritarianism (Altemeyer, 1998), and (g) Social Dominance Orientation (Pratto, Sidanius, Stallworth, & Malle, 1994).<sup>1</sup> Following this, participants read a short vignette describing a hypothetical incident of heterosexual date rape, and provided judgments about the two targets in the story in a randomized order. Finally, participants completed the short form of the Illinois Rape Myth Acceptance Scale (Payne, Lonsway, & Fitzgerald, 1999), and a second set of demographic questions.

## **Measures**

### ***Illinois rape myth acceptance scale short form (IRMA-SF)***

The IRMA-SF (hereinafter, IRMA) is a 17-item scale that measures the endorsement of rape myths. Each question was accompanied by a scale ranging from 1 (*not at all agree*) to 7 (*very much agree*). In the present research, I used the original version of the IRMA, albeit with a few modifications, as follows. To begin, the original version of the IRMA contained two items that could be potentially upsetting to participants (i.e., *Although most women wouldn't admit it,*

*they generally find being physically forced into sex a real “turn-on,”; Many women secretly desire to be raped*). In consultation with my faculty advisor, we determined that these two items were too inflammatory and thus were removed from our version of the scale.

Second, all the items in the original version were worded in a pro-trait manner (i.e., such that agreement indicated greater endorsement of rape myths). Although one would normally avoid further “tampering” with an existing scale, further consultation with my advisor led to a decision to add five additional items that were worded in a con-trait manner, such that agreement indicates a *rejection* of rape myths: (a) *It is the responsibility of both parties involved to get clear consent before engaging in sexual intercourse*, (b) *Women generally do not lie about rape*, (c) *A man saying he got “too far to stop” or “too sexually carried away” does not excuse rape*, (d) *If a woman is willing to “make out” with a guy, it does not give him the right to assume she is consenting to sex*. and (e) *It does not matter how a woman chooses to dress or what decisions she makes about the clothing she wears: Dressing in “skimpy clothes” does not excuse or justify rape*.

As is the case in many individual difference measures, the IRMA allows researchers to create distinct (but correlated) subscales (see Appendix 1). For example, the IRMA allows for the formation of items that specifically focus on women lying (e.g., *Rape accusations are often used as a way of getting back at men*), as opposed to trivializing beliefs (e.g., *Women tend to exaggerate how much rape affects them*). In my own research, however, I found very strong correlations among and between the various items. In addition, a principal components analysis (PCA; unrotated solution) yielded one primary component (eigenvalue of 8.30, 43.68% variance explained) with all the items on the scale--including our four additional items--loading highly on that component. (The number next to each of the items in Appendix 2 correspond to the loadings

from this analysis.) In light of this finding, it seemed most sensible, for purposes of my own analyses, to operationalize rape myth acceptance (RM) on the basis of this primary unrotated component. More specifically, I created a component score for each participant, using the regression option in SPSS.

### ***Interpersonal Reactivity Index (IRI)***

The IRI (Davis, 1983) is a 28-item measure of empathy, with each item accompanied by a scale ranging from 1 (*does not describe me at all*) to 5 (*describes me very well*). As noted earlier, our primary focus was on the empathic concern (EC) subscale, which corresponds to seven items (*I often have tender, concerned feelings for people less fortunate than me; Sometimes I don't feel very sorry for other people when they are having problems; When I see someone being taken advantage of, I feel kind of protective towards them; Other people's misfortunes do not usually disturb me a great deal; When I see someone being treated unfairly, I sometimes don't feel very much pity for them; I am often quite touched by things that I see happen; I would describe myself as a pretty soft-hearted person.*) An index of EC was based on an average of these items ( $\alpha = .85$ ).

### ***Right-Wing Authoritarianism (RWA)***

Right wing authoritarianism measures the degree to which participants support respect for authority and social conventions (Altemeyer, 1996). Using a validated short version of the scale as developed by Mavor, Louis, and Sibley (2010), participants were presented with a series of 14 items, each one accompanied by a scale ranging from 1 (*strongly disagree*) to 7 (*strongly disagree*); see Appendix 3 for a complete listing of these items. An overall index of RWA was formed based on an average of these items, after reverse scoring as needed ( $\alpha = .91$ ).



### ***Social Dominance Orientation (SDO)***

Social dominance orientation measures the degree to which participants endorse group-based hierarchies, with some groups dominating others (Pratto, Sidanius, Stallworth, & Malle, 1994). Using a validated short version of the scale as developed by Ho et al. (2015) participants were presented with a series of 8 items, each one accompanied by a scale ranging from 1 (*strongly oppose*) to 7 (*strongly favor*); see Appendix 4 for a complete listing of these items. An overall index of SDO was formed based on an average of these items, after reverse scoring as needed ( $\alpha = .89$ ).

### **Presentation of Vignette**

After completing the individual difference measures, participants read the following vignette, which was modified from a previous experiment by Lambert and Raichle, 2000; see also Lonsway, 1994.

*“It was Friday night in a crowded bar in St. Louis. Rebecca was out with her roommate and a big group of friends including a guy she had met a few weeks ago named Brian. Rebecca and Brian were attracted to each other, and the last time they went out together they had gone to Brian’s apartment and had sex. When they noticed each other at the bar, they made up an excuse to start up a conversation. The bar was getting pretty loud and crowded, so when Brian asked Rebecca if she wanted to go somewhere quieter to talk, it seemed like a good idea to her. After all, they had been having a good time together. She told him she lived right around the corner and they could go back there for a while if they wanted. He said that sounded good, so they left the bar.*

*When Brian and Rebecca got to her apartment, her roommate hadn’t yet returned, so the two got a couple of beers out of the fridge and sat on the couch talking. They seemed to be getting along great and eventually they started to kiss. Things started to get passionate and Rebecca was afraid her roommate would be home soon, so the two moved into her bedroom. Pretty soon they didn’t have any clothes on, but when they seemed close to having intercourse Rebecca pulled away and said she didn’t think they should go all the*

*way again. Brian insisted, saying they were too far into it to stop, but she told him again she didn't want to. Rebecca continued to say she didn't want to have sex, even after they had started. After a while, Rebecca didn't say anything else and they finished having sex. When it was over, Rebecca turned away from Brian in bed and he assumed that she fell asleep. He put on his clothes and left.”<sup>2</sup>*

After reading the vignette, participants were then asked to express their impressions of the two individuals in the story (i.e., Rebecca and Brian). In order to account for possible order effects, participants were presented with two separate blocks of judgments, one focusing on Rebecca, and one focusing on Brian. The order of these blocks was counterbalanced (i.e., for half of the participants, they first made judgments about Rebecca followed by Brian, with a reversal of this order for the other participants). Hence, although I present the information about the impression questions about Rebecca first, keep in mind that the order of presentation was randomized for participants.

In both cases, I had an *a priori* (i.e., theory-based) interest in forming two composites. One of these pertained to perceived responsibility or blame for what happened (hereinafter, blame ratings). The other index corresponded to participants' more general feelings of warmth and sympathy for the target. In order to avoid confusion with the personality-based assessment of empathic concern, I refer to these latter target judgments as *emotional support*, with the understanding that this generally refers to participants' general feelings of sympathy and compassion for the target person.

### **Judgments of Female Target**

In this task, participants were presented with a set of items (again, randomizing for order), all of which pertained to their judgments of the female target. Two of these were designed *a priori* as tapping perceived blame (*In your opinion, how much is Rebecca to blame*

*for her interaction with Brian)? In your opinion, how much responsibility does Rebecca have for what happened?).* An index of blame was formed based on an average of these two items ( $\alpha = .91$ ). Paralleling the previous studies, I also designated, *a priori*, four items as tapping participants' emotional support for the target (*How much sympathy do you have for Rebecca; How much empathy do you have for Rebecca; How supportive do you feel of Rebecca; How much compassion do you have for Rebecca?*) An emotional support composite for Rebecca was formed based on an average of all four items ( $\alpha = .94$ ).<sup>3</sup>

### **Judgments of Male Target**

In this block, participants were presented with the same set of items as the female target block, save for simply changing the referent of the question to Brian. Use of the same analytic approach as noted above yielded two indices, one pertaining to perceived blame ( $\alpha = .85$ ) and one pertaining to emotional support ( $\alpha = .92$ ).

## **Results**

### **Preliminary Analyses**

Tables 1 and 2 presents the means, standard deviations, and intercorrelations among the individual difference variables, as well as the four sets of target indices.

A one-way ANOVA was run to examine how male and female participants differed on the individual difference measures (see Table 3 for means). Consistent with previous findings in the empathy literature (Davis, 1983), results revealed a reliable tendency for female (versus male) participants to score higher on EC,  $F(1, 537) = 56.37, p < .001, \eta_p^2 = .11$ . Also consistent with the extant literature on rape myths, there was also a significant difference for RM, such that males tended to score higher than females,  $F(1, 537) = 42.27, p < .001, \eta_p^2 = .08$ . Additionally, there was a significant effect of gender for SDO, with men tending to score higher than women,

$F(1, 537) = 11.71, p < .001, \eta_p^2 = .02$  There was no gender difference with respect to scores on RWA,  $F(1, 537) = 0.62, p = .51, \eta_p^2 < .01$ .

### **Initial Mixed-Model ANOVAs**

Prior to considering the possible role of any individual difference variables, it is useful to first consider the pattern arising from the categorical variables in my design. (This analytic choice was driven mostly by pragmatic reasons, to simplify understanding of the somewhat more complicated regression analyses to follow.) As noted above, my design contained two primary classes of dependent variables, support and blame. Because each of these measures is associated with distinct theoretical and psychological processes, I conducted two separate sets of analyses, one on emotional support and one on blame. In both sets of analyses, I consider the main effects and interactions involving one within-subjects factor (target gender: Rebecca versus Brian), as well as the gender of the participants. I shall consider the results of each analysis in turn below.

**Analysis of emotional support.** Results revealed a significant main effect of target gender,  $F(1, 537) = 855.37, p < .001, \eta_p^2 = .61$ . This effect reflected that the female target ( $M = 68.41$ ) received higher emotional support ratings than the male target ( $M = 18.39$ ), collapsing over participant gender. There was also a significant main effect of participant gender,  $F(1, 537) = 5.53, p = .01, \eta_p^2 = .01$ . The effect showed that male participants generated higher ratings of emotional support ( $M = 44.94$ ) compared to female participants ( $M = 41.90$ ), collapsed over the identity of who was being judged. Finally, there was also a Target Gender x Participant Gender interaction ( $F(1, 537) = 8.82, p < .01, \eta_p^2 = .02$ ). Two one-way ANOVAs (one for each target) were run to further understand this interaction. When analyses were run on the female target only, results revealed no significant effects of participant gender,  $F(1, 537) = .72, p = .40, \eta_p^2 < .01$ . For the male target, however, analyses revealed a significant effect,  $F(1, 537) = 19.29, p <$

.01,  $\eta_p^2 < .04$ . This interaction (Figure 2) revealed a classic (gender-based) ingroup favoritism effect for the male target, such that male participants were more supportive of this target as compared to female participants.

**Analyses of blaming.** The means for these ratings are shown in Figure 3. Analyses revealed a main effect of target gender  $F(1, 537) = 406.83, p < .001, \eta_p^2 = .43$ . This effect reflected that the female target ( $M = 41.85$ ) received less blame than the male target ( $M = 78.68$ ), collapsing over participant gender. There was no effect of participant gender ( $F(1, 537) = 2.39, p = .12, \eta_p^2 < .01$ ) and analyses showed no evidence of an interaction involving target gender and participant gender,  $F(1, 537) = .60, p = .44, \eta_p^2 < .01$ .

### Regression Analyses

The primary purpose of these analyses was to conduct theory-driven tests of the predicted RM x EC interactions. On conceptual grounds, there were four instances in which this interaction could arise, corresponding to each of the four classes of dependent variables (i.e., emotional support, as well as blaming of the female target, along with the same two sets of reactions towards the male target).

In principle, one could analyze these data using a *multivariate* multiple regression (Hartung & Knapp, 2005). That approach would entail running one omnibus regression analysis, in which target gender (Rebecca versus Brian) and type of judgment (emotional support) would be modeled as the within-subject variable along with three separate sets of predictor variables, two of which are continuous (EC and RM) and one of which is categorical (participant gender). Although this approach is possible in theory, it corresponds to a five-factor analysis (Target Gender x Judgment Type x EC x RM x Participant Gender), the results of which would be cumbersome to describe, as well as difficult to interpret. It is also worth noting that this omnibus

analysis would almost certainly require follow-up analyses using the relatively more conventional approach of focusing on one criterion variable at a time. For the sake of expositional clarity, therefore, I conducted four sets of multiple regression analyses, each corresponding to a conceptually distinct criterion variable. In all of the regression analyses to be presented here, as well as in Experiment 2, continuous variables were standardized prior to analyses, and participant gender was dummy coded (0 = males; 1 = females). In all cases, analyses relied on hierarchical entry by blocks, with main effects entered first, followed by two and three way interactions in the second and third blocks, respectively.

Two of these analyses--each involving EC x RM x Participant Gender analyses in multiple regression--focused on the male target (Brian). Here, I only found one significant effect, that involving a three-way interaction involving participant gender, EC, and RM. This effect was not predicted, was difficult to interpret and—most importantly—did not replicate in Experiment 2. In view of these considerations, it seems pointless to describe a complicated effect that appeared to be spurious, and I do not consider this effect further. Aside from that one effect, I failed to find any other significant effects for the male target. Hence, in the regression analyses to follow, I focus only on the female target.

**Emotional support for the female target.** These analyses revealed three main effects. There was a main effect of gender, indicating that males expressed more support for the female target than female participants, ( $b = -.24$ ,  $t(535) = -3.00$ ,  $p < .01$ , CI [  $-.40$ ,  $-.08$ ]). (Although this appears to be inconsistent with the results of the mixed model ANOVAs, keep in mind that this represents the effect of gender, after statistically adjusting for the fact that women score higher in EC.) There was also a main effect of EC, such that participants who scored higher in EC were more supportive of the female target ( $b = .11$ ,  $t(535) = 2.72$ ,  $p = .01$ , CI [  $.03$ ,  $.20$ ]). Finally, there

was a main effect of RM such that lower scores on RM predicted more support for the female target ( $b = -.47, t(535) = -11.36, p < .01, CI [-.55, -.39]$ ).

Of greater interest, the second block revealed support for the predicted EC x RM interaction,  $b = -.09, t(532) = -2.00, p = .05, CI [-.17, -.01]$ . PROCESS (Hayes, 2013) was used to conduct Johnson-Neyman (i.e. region of significance) analyses that assessed how the relationship between RM (the predictor) and emotional support (the criterion variable) varied at different levels of the moderator (EC). Casual inspection of Figure 4 shows an intensification effect such that the difference in emotional support between low RM and high RM participants was greater for those scoring high in EC. This was confirmed more formally by Johnson-Neyman analyses, which indicated that the relationship between RM and support was *not* reliable when EC was extremely low (i.e., less than 3 SD below the mean). The relationship between RM and support was modest, but significant, at 2.88 SD below the mean in EC,  $b = -.22, t(535) = -1.96, p = .05, CI: [-.44, .00]$ . Beyond that point, however, the relationship between became progressively stronger (e.g., 2 SD above the mean:  $b = -.65, t(535) = -6.33, p < .01, CI: [-.86, -.45]$ ).

**Blaming of female target.** For the model predicting blame for the female target, the first step revealed a main effect of gender, indicating that female participants expressed more blame than male participants ( $b = .29, t(535) = 3.60, p < .01, CI [.13, .44]$ ). There was a main effect of RM such participants who had higher scores in RM predicted greater blame of the female target ( $b = .50, t(535) = 12.17, p < .01, CI [.42, .58]$ ). Of greater theoretical interest, entry of the second block revealed support for the predicted EC x RM interaction,  $b = .15, t(532) = 3.46, p < .01, CI [.06, .23]$ . (see Figure 5). Recall that in this case, higher numbers indicate on the Y-axis indicate greater levels of blame attributed to the female target. As seen in Figure 5, the nature of

this interaction was consistent with the predicted framework. Once again, the difference in ratings of blame between low RM and high RM participants was greater for those scoring high in EC. Johnson-Neyman analyses confirmed this interpretation, and showed that the relationship between RM and blame was *not* reliable when EC was extremely low (i.e., less than 2.5 SD below the mean). The relationship between RM and blame was modest, but significant, at 2.42 SD below the mean in EC,  $b = .19$ ,  $t(535) = -1.96$ ,  $p = .05$ , CI: [.00, .37]. Beyond that point, however, the relationship between became progressively stronger (e.g., 2 SD above the mean:  $b = .79$ ,  $t(535) = 7.44$ ,  $p < .01$ , CI: [.59, 1.00].

Neither of the other two-way interactions were significant (Gender x EC:  $b = .07$ ,  $t(532) = .76$ ,  $p = .45$ ; Gender x RM:  $b = .01$ ,  $t(532) = .05$ ,  $p = .96$ ), nor was the three-way interaction (Gender x EC x RM:  $b = .01$ ,  $t(531) = .129$ ,  $p = .90$ ).

### **Supplemental Analyses**

Regression analyses were also run using Social Dominance Orientation (SDO) and Right-Wing Authoritarianism (RWA) as moderators of the relationship between EC and target ratings. The purpose of these analyses was to determine whether the results found in the preliminary studies concerning the shooting of Michael Brown (that RWA and SDO were significant moderators of the relationship between EC and SUPPORT/BLAME) would replicate in another judgmental setting. Neither SDO nor RWA were not found to be a significant moderator for any of the dependent variables.

### **Discussion**

According to my working framework, empathic concern (EC) should intensify whatever “vested interest” might have been relevant to participants’ responses to the targets in the date rape scenario. In this experiment, vested interest was operationalized in terms of participants’ *a*



*priori*, personal endorsement of rape myths (RM). In the case of responses to the female target, I found—not surprisingly—that participants who endorsed RM expressed less emotional support towards, and were more likely to blame, the female target compared to participants who did not endorse RM. Of greater interest, the polarization observed between participants scoring high versus low in RM was even more pronounced among participants who scored high in empathic concern (see Figures 4 and 5).

Although the proposed model was supported in the case of the female target, no parallel effects of this sort emerged for the male target. In retrospect, there is a fairly sensible reason why these effects did not emerge. Note that the RM scale is almost entirely focused on how people view the potential victims of date rape, not the perpetrator. For this reason, it could be argued that the RM scale was measuring participants' vested interests in how they should respond to the female, not the male. An alternative explanation, however, is simply that the description of the male target was relatively unambiguous, that is, was judged relatively negatively by all participants, independent of any other considerations. If so, the lack of overall variability might have made it less likely that I would have observed the predicted interactive effect of EC and RM. Experiment 2 was designed, in part, to follow up on these considerations.

## **Experiment 2**

### **Overview**

Experiment 1 established that rape myths and empathic concern interact to increase attitudinal polarization. However, the design of Experiment 1 was essentially a correlational design. The main goal of Experiment 2 was to expand upon the findings of Experiment 1, using a manipulation that varied the salience of rape myths to gain leverage on causality. In service of

this goal, I incorporated two distinct experimental manipulations, each of which was designed to manipulate the salience of the date rape myth, albeit in different ways.

One way to manipulate the salience of these beliefs is to vary the order in which these beliefs were assessed. In particular, half of the participants completed the IRMA (along with the other individual difference variables) before responding to the vignette, whereas the other half of the participants completed the IRMA (again, along with the other individual difference variables) after responding to the vignettes. This represents a more elegant design than Experiment 1. In particular, recall that in my earlier study, the IRMA scale was always completed at the end of the survey, unlike the rest of the individual difference variables (which were always placed at the beginning). Experiment 2 improves on that design by assessing *all* of the individual difference variables together in one (randomized) block, and varying, as a between-subjects factor, whether such assessment occurred before versus after the target judgment phase.

Even more important, this modification represents a way of manipulating the cognitive accessibility (Wyer & Srull, 1986; Fazio, 2001) of participants' own beliefs/attitudes, as pertaining not only to rape myth acceptance, but also empathic concern. In other words, the act of completing the individual difference measures, themselves, is a way of making these belief/attitude structures more cognitively accessible than they otherwise might be. To this extent, I hypothesized that the predicted RM x EC effects would be even stronger if these variables were assessed prior to the vignette-judgment phase.

In the context of my research, there was a second way of manipulating the salience of rape myths, namely, by varying the nature of the vignettes themselves. Experiment 2 randomly assigned participants to read one of three different versions of the vignette. One of these versions (hereinafter, control vignette) was identical to that used Experiment 1. A second version of the

vignette was deliberately designed to explicitly conform to rape myths. This version (hereinafter, pro-rape myth) was designed to shift more blame to the female by explicitly noting that she was too drunk to remember the events of the previous night, but decided to press charges anyway. A third version of the vignette (anti -rape myth) took the opposite approach, shifting blame away from Rebecca, noting that she clearly remembered being raped and decided to press charges. The full text of the two modified versions is presented in Appendix 6

I hypothesized that priming participants with a vignette that was consistent with rape myths would increase blame for the female target, and increase support for the male target. In contrast, I predicted that priming participants with a vignette that was inconsistent with rape myths would decrease blame for the female, and decrease support for the male target. Most importantly, I predicted that participants who scored high for empathic concern would show more polarization in their judgments of the targets than participants who scored low in empathic concern.

### **Sampling Considerations**

As in Experiment 1, it was important to collect a sample containing reasonably equal numbers of male and female participants. This requirement was accomplished more elegantly in Experiment 2 by using the “quotas” feature of Qualtrics. Technical details aside, this feature ultimately allowed me to ensure that approximately equal numbers of participants were in each of the cells of my design. For example, it was not only important for me to collect equal numbers of male versus female participants in the study as a whole, it was also important to have equal proportions of males versus females *within* each of the cells of the design. Once a certain quota was filled, participants received an automated response that they had “not met the demographic requirements for this study” and the session was terminated. However, quotas can

slightly “overfill” if participants are completing the survey simultaneously, which in this case resulted in seven extra female participants.

#### A Note Regarding Individual Difference Variables

As in Experiment 1, I measured individual differences with respect to several different variables, not just EC and RM. Nevertheless, the primary goal of Experiment 2 was to conduct an independent investigation to test for the replication and generalizability of my earlier findings across three different types of vignettes. Recall that in the case of Experiment 1, significant moderator effects were only found for EC and RM. For this reason, the analyses to be reported below focus on those two variables.

### **Method**

#### **Participants and Design**

A total of 253 residents of the United States (133 female) were recruited through Amazon Mechanical Turk in return for a small gift voucher. This study was a 3 (vignette type) x 2 (presentation order) x 2 (participant gender) x 2 (target gender) factorial design; the first three of these factors were manipulated between subjects, and the last was manipulated within.

#### **Materials and Procedures**

Following collection of informed consent, the nature of the various judgment tasks, themselves, were essentially identical to that of Experiment 1. However, the order in which these tasks were completed was determined by random assignment to condition. For half of the participants, the sequence of tasks appeared in the following order: (a) completion of a randomized presentation of all of the individual difference measures, (b) presentation of date rape vignette, followed by judgments of the male and female target, counterbalancing for order, and (c) assessment of demographic variables. For the other half of the participants, the

individual difference measures were presented immediately after the target judgment blocks, but before assessing demographic variables. Independent of this ordering manipulation, the nature of the date rape vignette was varied in a between subjects manipulation, involving the presentation of one of three types of descriptions: (a) a vignette that made rape myths more salient, (b) a vignette which made rape myths less salient, or (c) a control vignette that was identical to the story used in Experiment 1 (cf. Appendix 6).

**Individual Difference Measures.** A one-way ANOVA was run to determine whether EC or RM varied as function of the manipulation of order. (In these initial analyses, I formed these composites using the same approach as employed in Experiment 1. That is, EC was based on an average of the six corresponding items from the IRI, and RM was derived from a standardized score corresponding to the first component from an unrotated PCA.) The results showed that the mean for EC did significantly differ based on condition,  $F(1, 251) = 3.82, p = .05, \eta_p^2 = .01$ . In particular, the mean for EC in the vignette first condition ( $M = 4.57$ ) was significantly higher than the mean for EC in the individual difference first condition ( $M = 4.38$ ). As for the unrotated RM index, results also revealed a marginal effect of order on RM,  $F(1, 251) = .328, p = .07, \eta_p^2 = .01$ . In this case, participants showed a small tendency to score higher on RM when participants completed this measure *after* rendering their judgments of the date-rape vignette ( $M = 0.12$ ), than if they completed the RM before making those judgments ( $M = -0.11$ ). The presence of these order effects suggested that it would be prudent to calculate residual values for these variables prior to the main analyses; see ahead for details.

**Target Judgments.** The same four dependent variables were created as in Experiment 1, two measuring support and two measuring blame for both the male and female targets.

## Analyses Involving Calculation of Residuals

In Experiment 2, I varied whether the two key individual difference variables—EC and RM—were measured before versus after participants were presented with the vignette involving Rebecca and Brian. As noted in the analyses above, scores on the EC composite reliably varied as a function of this order, and a marginal effect of order was found for RM. In these sorts of instances, it is desirable to form an unbiased index of these variables, one that removes the aforementioned effects of order. Because somewhat different considerations applied in the case of RM versus EC (owing to the way that these indices were formed), we shall consider the relevant residual analyses for each of these variables in turn.

Turn first towards RM. In order to maintain consistency with Experiment 1, it seemed best to generate an overall index of this variable using PCA. However, given the marginal effects of order reported above, it was important to first verify that the overall pattern of loadings was the same, after statistically controlling for order. To this end, I first calculated residuals for each of the 22 individual IRMA items, and then ran the PCA on those residualized items. The overall pattern of loadings from this analysis was virtually identical to that of Experiment 1. This analysis essentially shows that the pattern of intercorrelations among and between the 22 IRMA items was very similar, regardless of order (cf. Appendix 7). Given that this PCA was conducted on the residualized items, this analysis *also* enabled me to form an unbiased overall index of RM, using the regression option in SPSS, after controlling for any effects of order. Somewhat more simple considerations pertained to EC, given the formation of this index was theory-based, and derived from an average of the seven items from the IRI (Davis, 1983). Thus, the residual analysis in question here simply involved calculating the residualized composite of EC, after controlling for order.<sup>5</sup>

## Results

### Preliminary Analyses

Tables 4 and 5 present the means, standard deviations, and intercorrelations among the residuals of the individual difference variables, as well as the four sets of target indices.

It is also useful to understand how male versus female participants might have differed on the individual difference measures (see Table 6 for means). (Here we report EC and RM in terms of their original metric, to make perusal of these effects more meaningful to the reader.) The results of a one-way ANOVA showed a significant effect gender for EC reflecting that females tended to score higher in EC than males,  $F(1, 251) = 9.93, p < .01, \eta_p^2 = .04$ . There was also a significant effect of RM, such that males tended to score higher than females,  $F(1, 251) = 15.36, p < .01, \eta_p^2 = .06$ .

### Initial Mixed Model ANOVAs

Paralleling the analyses for Experiment 1, two mixed model ANOVA analyses were conducted, one set of analyses for support and the other for blame. In both cases, these analyses contained one within-participant factor (target gender) as well as three between-participants factors: participant gender (male/female), vignette condition (control, rape myth more salient, rape myth less salient), and order (individual differences first versus second). These analyses will be considered in turn below. (Because of the large number of results associated with each set of analyses, the results from these analyses are presented in tables, rather than in the body of the text.)

**Emotional support.** The results from the ANOVA on emotional support are shown in Table 7. As seen in this table, analyses revealed a main effect of target, which reflected the fact that participants generated more emotional support for the female target. No other main effects or interactions were significant.

**Blame.** The results from the ANOVA on blame are shown in Table 8. As seen in this table, analyses revealed a main effect of target. However, this effect was further qualified by a two-way interaction with order ( $F(1, 241) = 3.49, p = .05$ ). The graph of the interaction (see Figure 6) shows that, in general, participants tended to blame the male target ( $M = 71.92$ ) more than the female target ( $M = 44.65$ ). Follow-up analyses indicated that there were significant target effects within both conditions (Vignette First: ( $F(1, 123) = 24.74, p < .01, \eta^2 = .17$ ; Individual Different First: ( $F(1, 128) = 64.19, p < .01, \eta_p^2 = .33$ )). These show that in both order conditions, the mean blame score for the male target was significantly greater than the mean blame score for the female.

### **Regression Models**

Hierarchical linear regression models were conducted for each of the four dependent variables (blame and support for male and female target). Once again, participant gender was dummy coded (0 = males; 1 = females); order manipulation was dummy coded in a similar manner (0 = vignette first; 1 = individual difference task first). Vignette condition necessitated more complex dummy coding, as it was a categorical variable with three-levels. In this latter case, dummy coding essentially requires forming three reference variables, which enables one to assess all relevant comparisons across the vignettes (i.e. how vignette 1 differs from vignette 2, how vignette 1 differs from vignette 3, and how vignette 2 and vignette differ from each other). For a summary of this process, and a description of how this goal is achieved in the context of SPSS, see Aguinis, 2004.

As in Experiment 1, each of regression analyses to be reported ahead relied on a hierarchical entry by blocks, with the first block entering all five main effects (i.e. RM, EC, participant gender, presentation order, and the relevant dummy coding of vignette). The second



block included all possible two-way interactions. However, due to the added complexity of the dummy coding associated with vignette, the entry of the third block, involving three-way interactions, was restricted only to the term of theoretical interest, namely, the one that examined the potential contingency of the EC x RM interaction on vignette type.

### **Effects Involving Vignette Type**

All of the analyses involving vignette type yielded null effects, with only one exception. In particular, when assessing blame of the female target, I found a significant 2-way Participant Gender x Vignette interaction, involving the contrast between the control versus anti-date rape version,  $b = .62$ ,  $t(232) = 2.21$ ,  $p = .03$ , CI [ .07, 1.18]. The pattern of means corresponding to this interaction is shown in Figure 7. As seen here, male participants appeared to blame the female target more if they were presented with the anti-RM vignette compared to the control, whereas there doesn't appear to be a significant difference in the control condition. This asymmetry was confirmed by follow up analyses, which revealed a significant effect of gender for the anti-rape myth vignette condition,  $F(1, 80) = 5.50$ ,  $p = .02$ ,  $\eta_p^2 = .06$  but not for the control condition,  $F(1, 83) = .40$ ,  $p = .53$ ,  $\eta_p^2 = .01$ .

To reiterate, this was the *only* effect involving vignette that was significant. However, in order to properly test for the predicted effects involving RM and EC, this required that I conduct all analyses using the fully saturated regression analyses involving vignette, which requires the use of different “referent variables” across separate analyses. Although this required a large number of separate analyses, this was necessary in order to show that the predicted interaction of EC and RM generalized across all possible combinations of vignette type. For readers wanting to see a full display of all of these analyses, broken down by reference group type, we present these findings in Tables 9 through 16.

Of greatest theoretical interest, however, concerned the effects of EC and RM. Hence, in the remainder of this results section, we focus our primary attention on these variables, making note of when and where these findings replicated the findings of our preliminary studies and in Experiment 1. Following this, I present results concerning more complex higher-order interactions.

**Emotional support: female target.** Analyses revealed support for the predicted EC x RM interaction,  $b = -.15$ ,  $t(232) = -2.28$ ,  $p = .02$ , CI  $[-.27, -.02]$ . The nature of this effect is shown in Figure 8. As in the previous effects involving RM and EC, PROCESS (Hayes, 2003) can be useful in the service of conducting Johnson-Neyman (i.e. region of significance) analyses. Here, as before, it is most useful for my purposes to assess how the relationship between RM (the predictor) and emotional support (the criterion variable) at various levels of the moderator (EC). Figure 8 suggests that the negative relationship between RM and support tended to be stronger when participants scored high in EC than if they scored low. This was confirmed more formally by Johnson-Neyman analyses, which indicated that the relationship between RM and support was *not* reliable when EC was extremely low (i.e. less than 2.5 SD below the mean). The relationship between RM and support was significant at 2.43 SD below the mean in EC,  $b = -.24$ ,  $t(249) = -1.97$ ,  $p = .05$ , CI  $[-.49, .00]$ . Beyond that point, the relationship became progressively stronger (e.g., 2.08 SD above the mean,  $b = -.80$ ,  $t(249) = -5.28$ ,  $p < .01$ , CI  $[-1.10, -.50]$ . .

**Blame: female target.** Here too analyses revealed support for the predicted EC x RM interaction,  $b = .18$ ,  $t(232) = 2.80$ ,  $p = .01$ , CI  $[.05, .30]$ . Figure 9 shows a polarization effect such that the difference in blame for low RM and high RM participants is more extreme if they score high in EC. Johnson-Neyman analyses confirmed this, indicating that the relationship

between RM and blame was *not* reliable when EC was extremely low (i.e. less than 2.5 SD below the mean). The relationship between RM and blame was significant at 2.33 SD below the mean in EC,  $b = .23$ ,  $t(249) = 1.97$ ,  $p = .05$ , CI [ .00, .46]. Beyond that point, the relationship became progressively stronger (e.g., 2.08 SD above the mean,  $b = .96$ ,  $t(249) = 6.41$ ,  $p < .01$ , CI [ .66, 1.25].

### **Additional Analyses: Consideration of Higher Order Interactions**

The analyses reported above focused only on a female target, and replicated key findings from Experiment 1. In the case of the male target, these analyses were much more complicated, and involved the emergence of two separate three-way interactions, one for the emotional support variable, and one for the blaming variable. These effects (which were rather complicated) are described in turn below. Following this section, I also report three additional higher order interaction, this time involving the female target. In all of these analyses, the results are somewhat hard to interpret, but do not bear directly on my main hypotheses.

**Support: male target.** The full set of results for this analysis are presented in Table 13 and 14. As seen here, these analyses revealed a three-way interaction between participant gender, EC and RM ( $b = -.30$ ,  $t(227) = -2.38$ ,  $p = .02$ , CI [ -.55, -.05]). In order to further understand the implications of this effect, I then ran two follow-up analyses, one conducted on female participants, and another run on male participants. Consider first the analyses that focused on female participants only. Here, these analyses revealed a main effect of RM ( $b = .48$ ,  $t(130) = -4.90$ ,  $p < .01$ , CI [ .29, .68]), but did not reveal a significant interaction of EC and RM ( $b = -.06$ ,  $t(129) = -.71$ ,  $p = .48$ , CI [ -.23, .11]. Now turn to the analyses conducted on the male participants. Here, these analyses revealed a main effect of RM ( $b = .52$ ,  $t(117) = 5.92$ ,  $p < .01$ , CI [ .34, .70]), as well as a significant interaction of EC and RM ( $b = .23$ ,  $t(116) = 2.59$ ,  $p = .01$ , CI [ .05, .40]).

Figure 10 shows that the difference in support between male participants that scored high versus low in RM was greater if they also scored high in EC. Johnson-Neyman analyses confirmed this, indicating that the relationship between RM and support was *not* reliable when EC was extremely low (i.e. less than 2 SD below the mean). The relationship between RM and support was significant at 1.90 SD below the mean in EC,  $b = .26$ ,  $t(116) = 1.98$ ,  $p = .05$ , CI [ .00, .52]. Beyond that point, the relationship became progressively stronger (e.g., 1.83 SD above the mean,  $b = 1.11$ ,  $t(116) = 4.56$ ,  $p < .01$ , CI [ .63, 1.60].

**Blame: male target** These analyses revealed a significant three-way interaction between participant gender, EC, and RM ( $b = .29$ ,  $t(227) = 2.35$ ,  $p = .02$ , CI [.05, .54]) (see Table 15 and 16). Paralleling the previous analyses, I then ran two additional follow up analyses for the Gender x EC x RM interaction, one on female participants and one on male participants. Once again, the analyses of female participants revealed a main effect of RM ( $b = -.52$ ,  $t(130) = -5.38$ ,  $p < .01$ , CI [-.70, -.33]), but did not reveal a significant interaction of EC and RM ( $b = .09$ ,  $t(129) = 1.08$ ,  $p = .28$ , CI [-.08, .26]). As for the analyses of male participants, this revealed a main effect of RM ( $b = -.47$ ,  $t(117) = -5.32$ ,  $p < .01$ , CI [-.64, -.29]), and a significant interaction of EC and RM ( $b = -.23$ ,  $t(116) = -2.65$ ,  $p = .01$ , CI [-.41, -.06]). Figure 11 shows a polarization effect such that the difference in blame for male participants that scored high versus low in RM was greater if they also scored high in EC. Johnson-Neyman analyses confirmed this, indicating that the relationship between RM and blame was *not* reliable when EC was extremely low (i.e. less than 2 SD below the mean). The relationship between RM and blame was significant at 1.74 SD below the mean in EC,  $b = -.24$ ,  $t(116) = -1.98$ ,  $p = .05$ , CI [ -.48, .00]. Beyond that point, the relationship became progressively stronger (e.g., 1.83 SD above the mean,  $b = -1.07$ ,  $t(116) = -4.40$ ,  $p < .01$ , CI [ -1.55, -.59].

**Support: female target.** These analyses revealed a three-way interaction between participant gender, EC and order ( $b = -.56, t(227) = -2.21, p = .03, CI [-1.06, -.06]$ ) (see Table 9 and 10). In order to further understand the implications of this effect, I then ran two follow-up analyses, one for each participant gender. Consider first the analyses that focused male participants. Here, these analyses revealed a main effect of EC ( $b = .30, t(117) = 3.50, p < .01, CI [.13, .47]$ ), but did not reveal a significant interaction of EC and order ( $b = .02, t(116) = .13, p = .89, CI [-.32, .37]$ ). Now turn to the analyses conducted on the female participants. Here, analyses revealed a main effect of EC ( $b = .21, t(130) = 2.30, p = .02, CI [.03, .39]$ ), and a significant interaction of EC and order ( $b = -.56, t(129) = -3.11, p < .01, CI [-.91, -.20]$ ). Simple slopes analyses for the association between EC and support for the female target were tested for at both values of order condition. These analyses revealed a significant positive association between EC and support in the vignette first condition, ( $b = .44, t(129) = 3.82, p < .01, CI [.21, .67]$ ). There was not a significant association between EC and support in the individual difference first condition ( $b = -.12, t(129) = -.85, p = .40, CI [-.39, .16]$ ). This indicates that females who scored high in EC and completed the vignette first supported the female target more than low EC women in the same condition (see Figure 12).

**Blame: female target.** I also found a two three-way interactions (a) participant gender, EC, and presentation order ( $b = .60, t(227) = 2.50, p = .01, CI [.13, 1.08]$ ) and (b) EC, RM and order ( $b = -.28, t(227) = -2.10, p = .04, CI [-.54, -.02]$ ) (see Table 11 and 12). I will address each interaction in turn. First, I conducted follow up analyses for the gender x EC x order interaction, separating female and male participants into distinct analyses. As for the male participants, analyses revealed a main effect of EC ( $b = -.21, t(117) = -2.40, p = .02, CI [-.39, -.04]$ ), but did not reveal a significant interaction of EC and order ( $b = -.02, t(116) = -.11, p = .91, CI [-.37, .33]$ ).

As for female participants, analyses revealed no evidence of main effects, but they did reveal a significant interaction of EC and order ( $b = .60, t(129) = 3.31, p < .01, CI [.24, .96]$ ). Simple slopes analyses for the association between EC and support for the female target were tested at both values of order condition. These analyses revealed a significant positive association between EC and support in the vignette first condition, ( $b = -.37, t(129) = -3.15, p < .01, CI [-.60, -.14]$ ). There was not a significant association between EC and support in the individual difference first condition ( $b = .23, t(129) = 1.67, p = .10, CI [-.04, .51]$ ). This decomposed interaction shows that females that read the vignette first, and scored low in EC, were more likely to blame the female target than high EC females (see Figure 13).

Following this I ran follow-up analyses on the EC x RM x Order interaction, separating the order conditions into distinct analyses. The analyses for the order condition in which participants completed the individual difference block first revealed a main effect of RM ( $b = .51, t(126) = 5.93, p < .01, CI [.34, .68]$ ), but no significant interaction of EC and RM ( $b = .05, t(125) = .57, p = .57, CI [-.12, .22]$ ). For the order condition in which participants completed the vignette task first, results revealed a main effect of RM ( $b = .55, t(121) = 6.10, p < .01, CI [.37, .72]$ ), and a significant interaction of EC and RM ( $b = .31, t(120) = 4.44, p < .01, CI [.17, .45]$ ). Once again, Figure 14 shows an intensification effect such that the difference in blame between low RM versus high RM participants was greater if they also scored high in EC. Johnson-Neyman analyses confirmed this, indicating that the relationship between RM and blame was *not* reliable when EC was extremely low (i.e. less than 2 SD below the mean). The relationship between RM and blame was significant at 1.83 SD below the mean in EC,  $b = .22, t(120) = 1.98, p = .05, CI [.00, .44]$ . Beyond that point, the relationship became progressively stronger (e.g., 1.83 SD above the mean,  $b = 1.35, t(120) = 6.78, p < .01, CI [.95, 1.74]$ ).

## Discussion

Experiment 2 provided an experimental test of the model of empathy-driven ideological polarization. In particular, this study aimed to manipulate the salience of rape myths via an order manipulation and a vignette manipulation. In both cases, the experimental manipulations were relatively ineffective, particularly in the case of the vignettes. One possible reason for this shortcoming is the salience manipulations was not strong enough. It may be the case that stronger manipulations would require painting the female target in a worse light, the corresponds more closely with rape myths. The order manipulation worked in the models that predicted blame and support for the female target, but did not generalize to the other dependent variables. Once decomposed, the three-way interaction between participant gender, EC, and order indicated that female participants who were high in EC, and in the condition which completed the vignette task first, were more likely to support and less likely to blame the female target than low EC females. However, on average, low EC participants were more polarized, and this may indicate that high EC participants have a higher threshold for manipulation and require more salient manipulations.

Importantly, Experiment 2 revealed further support for the model of empathy-driven polarization. Once again, there was an interaction between empathic concern and rape myths for the female target. An additional three-way interaction between EC, RM and order provided further support for the empathy-driven model of ideological polarization. Broadly, the pattern of results showed that highly empathic participants who did not endorse rape myths were more likely to support the female than less empathic people with similar rape myth views. Further, highly empathic people who do endorse rape myths blame the female target more than less

empathic people with similar rape views. These findings provide further evidence that empathic concern is an important actor in ideological polarization.

### **General Discussion**

Empathy is widely considered to be one of the most admirable traits a person can project. It is generally assumed that empathic people will be accepting of other perspectives, and can act as arbiters between those of us who are less evolved. Counter to intuition, emerging research within psychology suggests that empathy may, in fact, act to increase polarization (Azevedo et al., 2013; Gutsell & Inzlicht, 2010; Mitchell, Mason, Macrae, & Banaji, 2005; Xu, Zuo, Wang, & Han, 2009). However, to my knowledge, this is the first study to test the influence individual differences in empathy-driven polarization and to isolate empathic concern as a key player. The preliminary findings presented earlier about the shooting in Ferguson and hypothetical AIDS patient indicated that the interaction of dispositional empathy and strongly held ideologies can result in a large degree of attitude polarization. The results from this series of studies serve to replicate this finding in a new judgment setting, and for a new ideology. Taken together, the results presented above show that highly empathic people that endorse rape myths are more likely to blame the victim than participants scoring lower in empathic concern. Further, participants who score high in empathic concern and low in rape myths, were more likely to support the victim than participants scoring low in empathic concern. It is important to note, that across both studies this interaction was only found for the female target. While further study is required to satisfactorily explain this pattern, it is possible that this is due to the focus of the rape myth scale on the actions of females, rather than males.

Experiment 2 also found a significant interaction between participant gender, empathic concern, and endorsement of rape myths. The general pattern of findings showed that male



participants who scored high in endorsement of rape myths, were more supportive and less likely to blame the male target. These findings provide the first evidence in this series of how ingroup membership might be used to select empathic allies. This result could reflect that in some circumstances group membership and ideologies have an additive effect.

For example, in this study when male participants who highly endorse rape myths read about an ingroup member in the context of a vignette that was ideologically consistent they were less likely to blame the male, and this effect was intensified if they were high in empathic concern. This is contrasted with male participants who do not endorse rape myths, reading about an ingroup target, engaging in ideologically inconsistent behavior. These males were more likely to blame the male target, and this effect was intensified if the participant was high in empathic concern. This suggests that if a target is an ingroup member in gender label and ideology, they are even more likeable and empathic participants feel this more intensely. Conversely, if a target is an ingroup member in gender label, but an outgroup member in ideology, they are not likeable, and empathic participants feel this more intensely. It might be the case that ideologies are more powerful as a mechanism for selecting empathic targets, but that group labels can serve an additive purpose. This would, perhaps, explain why gender effects were never significant moderators, without the inclusion of rape myths. Due to the exploratory nature of these findings, further study is required to test and replicate this additive hypothesis. Moreover, further study is needed to gain understanding as to why only male participants showed this pattern.

A final finding showed that among female participants who read the vignette first, those that scored low in empathic concern were more likely to blame, and less likely to support, the female target than high EC women in the same order condition. This contrasts with the female participants assigned to the condition that completed the individual difference measures first,

who did not significantly differ based on empathic concern. This difference between the order conditions can be interpreted through two lenses: that of priming (Fazio, 2001) or cognitive dissonance (Festinger, 1957). In the first instance, when completing the individual difference measures, participants' beliefs about rape myths became activated and were then more accessible when participants later evaluated the targets. From the latter perspective, participants put forth a certain set of beliefs about rape myths in the individual difference block, and when later asked about the targets they answered in a manner that would be consistent with their earlier answers, thereby avoiding dissonance. Neither priming nor dissonance were relevant when participants read the vignette first, which may be why dispositional empathy had an effect.

While the preliminary studies had significant weaknesses, both Experiment 1 and Experiment 2 added significant experimental control over the previous Ferguson paradigm. More importantly, Experiment 2 resolved many methodological issues present in the earlier studies. The findings presented herein represent an important contribution to the literature on empathy and attitude polarization, and I hope to build on this model in future studies. In particular, future studies will endeavor to develop more effective experimental manipulations and extend these manipulations to a new judgmental context. Finally, while these data make clear that empathy can act to amplify polarization, this is not necessarily inevitable. Perhaps the most important extension of this work will be to determine how the more intuitive view of empathy as an antidote to polarization can be harnessed and applied.

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## Footnotes

<sup>1</sup> Only a subset of these measures is applicable to the findings discussed below; therefore, detailed information will only be provided about the measures of interest. Analyses were conducted with all of the included measures, but results were non-significant or were not relevant to the considerations in this paper.

<sup>2</sup> As noted above, the sample for this study was collected over two waves. In the second wave, slight changes were made to the vignette to allow for more variability in the blameworthiness of both targets. Three changes were made to the original vignette: (1) it explicitly mentioned the targets were drinking at the bar, (2) the female gave the male a condom, and (3) there was a second mention of the targets previous sexual contact (for full text see Appendix 5). Mediation analysis indicated that none of the results differed significantly based upon which version of the vignette participants received (all  $p$  values  $>.05$ ); as such, two waves were merged into one overall data set. All subsequent discussion and analyses will refer to the merged dataset.

<sup>3</sup> Two more questions were asked about anger and disgust toward the female and male target; however, those items are not relevant to the hypotheses tested in this paper.

<sup>4</sup> The two-way interaction between participant gender and EC and participant gender and RM were both significant (Gender\*EC:  $b = -.22$ ,  $t(532) = -2.60$ ,  $p = .01$ ; Gender\*RM:  $b = -.29$ ,  $t(532) = -3.47$ ,  $p < .01$ ); however, as these interactions are not pertinent to the discussion to follow and did not in Experiment 2. The three-way interaction was not significant, ( $b = -.10$ ,  $t(531) = -1.20$ ,  $p = .23$ , CI  $[-.27, .07]$ ).

<sup>5</sup> It is also possible to calculate residualized scores for the *target* judgments, that is, participants ratings of blame and support for Rebecca and Brian, after controlling for order.



There was one instance in which this was meaningful to do so, when we calculated the relation among and between these target ratings (cf. Table 5, below). Aside from this analysis, however, it is *not* meaningful to compute residuals for the dependent variables themselves. This is because the regression analyses, to be reported below, examined the effects of order, in combination with the other predictors. Stated another way, calculating these residuals in the case of the dependent variables would automatically *eliminate* any effects of order, rendering this aspect of the multiple regression analyses meaningless.

## Appendix 1

### Illinois Rape Myth Scale (IRMA-SF) Items

#### She Asked For It:

If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.

A woman who “teases” men deserves anything that might happen.

When women are raped, it’s often because the way they said “no” was ambiguous.

A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex.

#### It Wasn’t Really Rape:

If a woman doesn’t physically fight back, you can’t really say that it was rape.

If the rapist doesn’t have a weapon, you really can’t call it a rape.

#### He Didn’t Mean To:

Men don’t usually intend to force sex on a woman, but sometimes they get too sexually carried away.

Rape happens when a man’s sex drive gets out of control.

#### She Wanted It:

Although most women wouldn’t admit it, they generally find being physically forced into sex a real “turn-on.”

rape.

Many women secretly desire to be raped.

#### She Lied:

If a woman is willing to “make out” with a guy, then it’s no big deal if he goes a little further and has sex.

Women who are caught having an illicit affair sometimes claim that it was

Rape accusations are often used as a way of getting back at men.

A lot of women lead a man on and then they cry rape.

#### Rape is a Trivial Event:

Women tend to exaggerate how much rape affects them.

#### Rape is a Deviant Event:

Men from nice middle-class homes almost never rape.

It is usually only women who dress suggestively that are raped.

Rape is unlikely to happen in the woman’s own familiar neighborhood.

## Appendix 2: Principal Component Analysis (Experiment 1)

Items:	Component Loading
If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.	0.71
If a woman is willing to “make out” with a guy, then it’s no big deal if he goes a little further and has sex.	0.75
If a woman doesn’t physically fight back, you can’t really say that it was rape.	0.76
Rape accusations are often used as a way of getting back at men.	0.67
It is usually only women who dress suggestively that are raped.	0.73
If the rapist doesn’t have a weapon, you really can’t call it a rape.	0.71
Rape is unlikely to happen in the woman’s own familiar neighborhood.	0.62
Women tend to exaggerate how much rape affects them.	0.77
A lot of women lead a man on and then they cry rape.	0.76
A woman who “teases” men deserves anything that might happen.	0.83
When women are raped, it’s often because the way they said “no” was ambiguous.	0.66
Men don’t usually intend to force sex on a woman, but sometimes they get too sexually carried away.	0.50
A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex	0.69
Rape happens when a man’s sex drive gets out of control.	0.47
If a woman is willing to “make out” with a guy, it does <u>not</u> give him the right to assume she is consenting to sex.	-0.60
It is the responsibility of both parties involved to get clear consent before engaging in sexual intercourse	-0.57
Women generally do not lie about rape.	-0.50
A man saying he got "too far to stop" or "too sexually carried away" does not excuse rape.	-0.50
It does not matter how a woman chooses to dress or what decisions she makes about the clothing she wears: Dressing in “skimpy clothes” does not excuse or justify rape.	-.62

### **Appendix 3**

#### **Right-Wing Authoritarianism (RWA-SF) Items**

1. What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path
2. It may be considered old fashioned by some, but having a normal proper appearance is still the mark of a gentleman and, especially, a lady.
3. Obedience and respect for authority are the most important virtues children should learn.
4. Our country needs free thinkers who will have the courage to defy traditional ways, even if this upsets many people.
5. Some of the best people in our country are those who are challenging our government, criticising religion, and ignoring the “normal way” things are supposed to be done.
6. We should treat protestors and radicals with open arms and open minds, since new ideas are the lifeblood of progressive change.
7. The situation in our country is getting so serious, the strongest methods would be justified if they eliminated the troublemakers and got us back to our true path.
8. There is no “ONE right way” to live life; everybody has to create their own way.
9. Gays and lesbians are just as healthy and moral as anybody else.
10. The real key to the “good life” is obedience, discipline, and sticking to the straight and narrow.
11. Once our government leaders give us the “go ahead”; it will be the duty of every patriotic citizen to help stomp out the rot that is poisoning our country from within.
12. The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas.
13. There is nothing wrong with premarital sexual intercourse.
14. Everyone should have their own lifestyle, religious beliefs, and sexual preferences, even if it makes them different from everyone else.

**Appendix 4**  
**Social-Dominance Orientation (SDO-SF) Items**

1. Some groups of people are simply inferior to other groups.
2. No one group should dominate in society.
3. Group equality should NOT be our primary goal.
4. It is unjust to try to make groups equal.
5. An ideal society requires some groups to be on top and others to be on the bottom.
6. Groups at the bottom are just as deserving as groups at the top.
7. We should do what we can to equalize conditions for different groups.
8. We should work to give all groups an equal chance to succeed.

## **Appendix 5: Vignette (Experiment 1)**

It was Friday night in a crowded bar in St. Louis. Rebecca was out with her roommate and a big group of friends including a guy she had met a few weeks ago named Brian. Rebecca and Brian were attracted to each other, and the last time they went out together they had gone to Brian's apartment and had sex. When they noticed each other at the bar, they made up an excuse to start up a conversation. They each had a few drinks while talking, and started kissing when Rebecca asked Brian if he wanted to go back to her apartment to hang out. He said that sounded good, so they left the bar.

When Brian and Rebecca got to her apartment, her roommate hadn't yet returned, so the two got a couple of beers out of the fridge and sat on the couch talking. They seemed to be getting along great and eventually they started to kiss. Things started to get passionate and Rebecca was afraid her roommate would be home soon, so the two moved into her bedroom, and pretty soon they didn't have any clothes on. Rebecca had given Brian a condom, but at the last minute Rebecca pulled away and said she didn't think they should go all the way again. Brian said it wasn't a big deal since it wasn't their first time together, but she told him again she didn't want to. After a while, Rebecca didn't say anything else and they finished having sex. When it was over, Rebecca turned away from Brian in bed and he assumed that she fell asleep. He put on his clothes and left.

## **Appendix 6: Vignettes (Experiment 2)**

### **Control:**

It was Friday night in a crowded bar in St. Louis. Rebecca was out with her roommate and a big group of friends including a guy she had met a few weeks ago named Brian. Rebecca and Brian were attracted to each other, and the last time they went out together they had gone to Brian's apartment and had sex. When they noticed each other at the bar, they made up an excuse to start up a conversation. They each had a few drinks while talking, and started kissing when Rebecca asked Brian if he wanted to go back to her apartment to hang out. He said that sounded good, so they left the bar.

When Brian and Rebecca got to her apartment, her roommate hadn't yet returned, so the two got a couple of beers out of the fridge and sat on the couch talking. They seemed to be getting along great and eventually they started to kiss. Things started to get passionate and Rebecca was afraid her roommate would be home soon, so the two moved into her bedroom, and pretty soon they didn't have any clothes on. Rebecca had given Brian a condom, but at the last minute Rebecca pulled away and said she didn't think they should go all the way again. Brian said it wasn't a big deal since it wasn't their first time together, but she told him again she didn't want to. After a while, Rebecca didn't say anything else and they finished having sex. When it was over, Rebecca turned away from Brian in bed and he assumed that she fell asleep. He put on his clothes and left.

### **Rape Myths More Salient**

It was Friday night in a crowded bar in St. Louis. Rebecca was out with her roommate and a big group of friends including a guy she had met a few weeks ago named Brian. Rebecca and Brian were attracted to each other, and the last time they went out together they had gone to Brian's apartment and had sex. When they noticed each other at the bar, they made up an excuse to start up a conversation. They each had a few drinks while talking, and started kissing when Rebecca asked Brian if he wanted to go back to her apartment to hang out. He said that sounded good, so they left the bar.

When Brian and Rebecca got to her apartment, her roommate hadn't yet returned, so the

two got a couple of beers out of the fridge and sat on the couch talking. They seemed to be getting along great and eventually they started to kiss. Things started to get passionate and Rebecca was afraid her roommate would be home soon, so the two moved into her bedroom, and pretty soon they didn't have any clothes on. Rebecca had given Brian a condom, but at the last minute Rebecca pulled away and said she didn't think they should go all the way again. Brian said it wasn't a big deal since it wasn't their first time together, but she told him again she didn't want to. After a while, Rebecca didn't say anything else and they finished having sex. When it was over, Rebecca turned away from Brian in bed and he assumed that she fell asleep. He put on his clothes and left.

The next morning, Rebecca text messaged her best friend Lindsay, saying that she was having trouble remembering a lot of details from the previous night because she had been drinking so much. Rebecca did remember kissing Brian at the bar and taking him to her apartment. She couldn't recall exactly what happened later, although she knows that they had sex. Later that day, Rebecca filed a sexual assault report with the campus police and student services.

### **Rape Myths Less Salient:**

It was Friday night in a crowded bar in St. Louis. Rebecca was out with her roommate and a big group of friends including a guy she had met a few weeks ago named Brian. Rebecca and Brian were attracted to each other, and the last time they went out together they had gone to Brian's apartment and had sex. When they noticed each other at the bar, they made up an excuse to start up a conversation. They each had a few drinks while talking, and started kissing when Rebecca asked Brian if he wanted to go back to her apartment to hang out. He said that sounded good, so they left the bar.

When Brian and Rebecca got to her apartment, her roommate hadn't yet returned, so the two got a couple of beers out of the fridge and sat on the couch talking. They seemed to be getting along great and eventually they started to kiss. Things started to get passionate and Rebecca was afraid her roommate would be home soon, so the two moved into her bedroom, and pretty soon they didn't have any clothes on. Rebecca had given Brian a condom, but at the last minute Rebecca pulled away and said she didn't think they should go all the way again. Brian



said it wasn't a big deal since it wasn't their first time together, but she told him again she didn't want to. After a while, Rebecca didn't say anything else and they finished having sex. When it was over, Rebecca turned away from Brian in bed and he assumed that she fell asleep. He put on his clothes and left.

The next morning, Rebecca text messaged her best friend Lindsay, saying that she was really upset about the previous night. She said she made it very clear to Brian she did not want to have sex, and he had ignored her protests and had sexually assaulted her. Later that day, Rebecca filed a sexual assault report with the campus police and student services.

## Appendix 7: Principal Component Analysis (Experiment 2)

Items:	Component Loading
If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.	0.66
If a woman is willing to “make out” with a guy, then it’s no big deal if he goes a little further and has sex.	0.66
If a woman doesn’t physically fight back, you can’t really say that it was rape.	0.73
Rape accusations are often used as a way of getting back at men.	0.67
It is usually only women who dress suggestively that are raped.	0.70
If the rapist doesn’t have a weapon, you really can’t call it a rape.	0.69
Rape is unlikely to happen in the woman’s own familiar neighborhood.	0.64
Women tend to exaggerate how much rape affects them.	0.74
A lot of women lead a man on and then they cry rape.	0.76
A woman who “teases” men deserves anything that might happen.	0.75
When women are raped, it’s often because the way they said “no” was ambiguous.	0.77
Men don’t usually intend to force sex on a woman, but sometimes they get too sexually carried away.	0.47
A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex	0.70
Rape happens when a man’s sex drive gets out of control.	0.38
If a woman is willing to “make out” with a guy, it does <u>not</u> give him the right to assume she is consenting to sex.	-0.71
It is the responsibility of both parties involved to get clear consent before engaging in sexual intercourse	-0.38
Women generally do not lie about rape.	-0.52
A man saying he got "too far to stop" or "too sexually carried away" does not excuse rape.	-0.52
It does not matter how a woman chooses to dress or what decisions she makes about the clothing she wears: Dressing in “skimpy clothes” does not excuse or justify rape.	-0.79

Table 1

*Means, Standard Deviations, and Zero-Order Correlations (Experiment 1)*

<b>Variables</b>	<b>MEAN</b>	<b>SD</b>	<b>RM</b>	<b>EC</b>	<b>RWA</b>	<b>SDO</b>
<b>RM</b>	0.00	1.00	1.00	<b>-.39**</b>	<b>.51**</b>	<b>.52**</b>
<b>EC</b>	4.40	0.80		1.00	<b>-.21**</b>	<b>-.46**</b>
<b>RWA</b>	3.05	1.19			1.00	<b>.61**</b>
<b>SDO</b>	2.74	1.18				1.00

*RM, Rape Myths; EC, Empathic Concern; RWA, Right-Wing Authoritarianism; SDO, Social Dominance Orientation;*

*\*\*Correlation is significant at the 0.01 level (2-tailed).*

Table 2

Means, Standard Deviations, and Zero-Order Correlations (Experiment 1)

		Female				Male	
Variables		MEAN	SD	Support	Blame	Support	Blame
Female							
	Support	68.41	27.83	1.00	-.62**	-.28**	.52**
	Blame	41.85	29.43		1.00	.41**	-.40**
Male							
	Support	18.38	21.78			1.00	-.53**
	Blame	68.41	27.83				1.00

**\*\*Correlation is significant at the 0.01 level (2-tailed).**

Table 3

*Means and Standard Deviations for Individual Difference Variables (Experiment 1).*

<b>Variable</b>	<b>Participant Gender</b>	<b>Mean</b>	<b>SD</b>
<b>Empathic Concern</b>			
	Female	4.64	0.77
	Male	4.15	0.76
<b>Rape Myths</b>			
	Female	-0.27	0.89
	Male	0.27	1.03
<b>Social Dominance Orientation</b>			
	Female	2.60	1.14
	Male	2.89	1.20
<b>Right-Wing Authoritarianism</b>			
	Female	3.08	1.23
	Male	3.01	1.16

*Table 4*

*Means, Standard Deviations, and Zero-Order Correlations of Residualized Individual Difference Variables: Experiment 2*

<b>Variables</b>	<b>MEAN</b>	<b>SD</b>	<b><math>\alpha</math></b>	<b>RM</b>	<b>EC</b>
<b>RM</b>	0.00	1.00	.72	1	<b>-.51**</b>
<b>EC</b>	0.00	1.00	.85		1

*Notes: RM= Rape Myths; EC = Empathic Concern;*

*\*\*Correlation is significant at the 0.01 level (2-tailed).*

Table 5

Means, Standard Deviations, and Zero-Order Correlations of Residualized Dependent Variables: Experiment 2

				Female		Male	
Variables	MEAN	SD	$\alpha$	Support	Blame	Support	Blame
Female							
Support	0.00	31.52	.97	1	-.73**	-.30**	.64**
Blame	0.00	30.30	.94		1	.53**	-.53**
Male							
Support	0.00	28.41	.95			1	-.56**
Blame	0.00	24.02	.90				1

\*\*Correlation is significant at the 0.01 level (2-tailed).

Table 6

*Means and Standard Deviations for Individual Difference Variables (Experiment 2).*

<b>Variable</b>	<b>Participant Gender</b>	<b>Mean</b>	<b>SD</b>
<b>Empathic Concern</b>	Female	4.62	0.76
	Male	4.31	0.78
<b>Rape Myths</b>	Female	-0.23	0.86
	Male	0.25	1.09



*Table 7**Mixed Model ANOVA Results for Support Variables (Experiment 2)*

<b>Variables</b>	<b>df</b>	<b><i>F</i></b>	<b><i>p</i></b>	<b><i>partial</i> <math>\eta^2</math></b>
Target	1,241	76.60	.00	.24
Target*Gender	1, 241	1.92	.17	.01
Target*Condition	2, 241	2.80	.06	.02
Target*Order	1, 241	.49	.49	<.01
Target*Gender*Condition	2, 241	.53	.59	<.01
Target*Condition*Order	2, 241	.24	.79	<.01
Target*Gender*Order	1,241	.18	.67	<.01
Target*Gender*Condition*Order	2, 241	.160	.85	<.01

*Table 8**Mixed Model ANOVA Results for Blame Variables (Experiment 2)*

<b>Variables</b>	<b>df</b>	<b><i>F</i></b>	<b><i>p</i></b>	<b><i>partial</i> <math>\eta^2</math></b>
Target	1, 241	82.28	.00	.26
Target*Gender	1, 241	2.16	.14	.01
Target*Condition	2, 241	1.29	.28	.01
Target*Order	1, 241	3.94	.05	.02
Target*Gender*Condition	2, 241	1.68	.19	.01
Target*Condition*Order	2, 241	.46	.63	<.01
Target*Gender*Order	1, 241	.00	.97	<.01
Target*Gender*Condition*Order	2, 241	.10	.91	<.01

Table 9.

*Support for Female Target as a Function of Predictor Variables, Using Control Vignette as Reference (Experiment 2).*

Variables	b	t	p	CI	
Step 1					
Participant Gender	-0.21	-1.82	.07	-0.43	0.02
Order	0.07	0.61	.54	-0.15	0.28
Vignette 2	-0.13	-0.97	.33	-0.39	0.13
Vignette 3	-0.13	-0.95	.34	-0.39	0.14
EC	0.08	1.24	.22	-0.05	0.20
RM	-0.50	-7.95	< .01	-0.63	-0.38
Step 2					
Gender*EC	-0.13	-0.97	.33	-0.38	0.13
Gender*RM	-0.05	-0.32	.75	-0.32	0.23
Gender*Order	0.29	1.22	.23	-0.18	0.75
Gender*Vignette 2	0.10	0.36	.72	-0.46	0.66
Gender*Vignette 3	0.37	1.28	.20	-0.20	0.94
EC*RM	-0.15	-2.28	.02	-0.27	-0.02
EC*Vignette 2	0.01	0.08	.94	-0.30	0.33
EC*Vignette 3	0.13	0.78	.44	-0.20	0.47
EC*Order	-0.10	-0.77	.44	-0.36	0.16
RM*Vignette 2	0.03	0.19	.85	-0.29	0.35
RM*Vignette 3	-0.19	-1.07	.28	-0.54	0.16
RM*Order	0.06	0.47	.64	-0.20	0.33
Vignette 2*Order	0.11	0.41	.68	-0.42	0.65
Vignette 3*Order	0.08	0.30	.77	-0.46	0.63
Step 3					
Gender*EC*RM	0.07	0.56	.58	-0.17	0.31
Gender*EC*Order	-0.56	-2.21	.03	-1.06	-0.06
EC*RM*Vignette 2	0.00	0.02	.99	-0.32	0.33
EC*RM*Vignette 3	0.05	0.33	.74	-0.26	0.36
EC*RM*Order	0.20	1.40	.16	-0.93	0.03
Step 4					
Gender*EC*RM*Order	-0.10	-0.38	.70	-0.58	0.39

Table 10.  
Support for Female Target as a Function of Predictor Variables, Using Anti-Rape Myth Vignette as Reference (Experiment 2).

Variables	b	t	p	CI	
Step 1					
Participant Gender	-0.21	-1.82	.07	-0.43	0.02
Order	0.07	0.61	.54	-0.15	0.28
Vignette 1	0.13	0.95	.34	-0.14	0.39
Vignette 2	0.00	-0.01	.99	-0.27	0.26
EC	0.08	1.24	.22	-0.05	0.20
RM	-0.50	-7.95	< .01	-0.63	-0.38
Step 2					
Gender*EC	-0.13	-0.97	.33	-0.38	0.13
Gender*RM	-0.05	-0.32	.75	-0.32	0.23
Gender*Order	0.29	1.22	.23	-0.18	0.75
Gender*Vignette 1	-0.37	-1.28	.20	-0.94	0.20
Gender*Vignette 2	-0.27	-0.97	.33	-0.81	0.28
EC*RM	-0.15	-2.28	.02	-0.27	-0.02
EC*Vignette 1	-0.13	-0.78	.44	-0.47	0.20
EC*Vignette 2	-0.12	-0.84	.40	-0.40	0.16
EC*Order	-0.10	-0.77	.44	-0.36	0.16
RM*Vignette 1	0.19	1.07	.28	-0.16	0.54
RM*Vignette 2	0.22	1.46	.15	-0.08	0.52
RM*Order	0.06	0.47	.64	-0.20	0.33
Vignette 1*Order	-0.08	-0.30	.77	-0.63	0.46
Vignette 2*Order	0.03	0.11	.92	-0.51	0.57
Step 3					
Gender*EC*RM	0.07	0.56	.58	-0.17	0.31
Gender*EC*Order	-0.56	-2.21	.03	-1.06	-0.06
EC*RM*Vignette 1	-0.05	-0.36	.72	-0.32	0.22
EC*RM*Vignette 2	-0.05	-0.33	.74	-0.36	0.26
EC*RM*Order	0.20	1.40	.16	-0.08	0.47
Step 4					
Gender*EC*RM*Order	-0.10	-0.38	.70	-0.58	0.39

Table 11.

*Blame for Female Target as a Function of Predictor Variables, Using Control Vignette as Reference (Experiment 2).*

Variables	b	t	p	CI
Step 1				
Participant Gender	0.11	0.94	.35	-0.12 0.33
Order	-0.23	-2.12	.04	-0.45 -0.02
Vignette 2	0.00	0.03	.98	-0.26 0.27
Vignette 3	-0.05	-0.35	.72	-0.31 0.22
EC	0.04	0.72	.47	-0.08 0.16
RM	0.55	8.73	< .01	0.43 0.67
Step 2				
Gender*EC	0.17	1.35	.18	-0.08 0.42
Gender*RM	0.19	1.43	.15	-0.07 0.46
Gender*Order	-0.16	-0.71	.48	-0.61 0.29
Gender*Vignette 2	-0.17	-0.63	.53	-0.72 0.37
Gender*Vignette 3	-0.62	-2.21	.03	-1.18 -0.07
EC*RM	0.18	2.80	.01	0.05 0.30
EC*Vignette 2	-0.10	-0.64	.53	-0.41 0.21
EC*Vignette 3	-0.08	-0.51	.61	-0.41 0.24
EC*Order	0.12	0.90	.37	-0.14 0.37
RM*Vignette 2	-0.04	-0.24	.81	-0.35 0.27
RM*Vignette 3	0.10	0.57	.57	-0.24 0.44
RM*Order	-0.14	-1.04	.30	-0.39 0.12
Vignette 2*Order	0.25	0.95	.35	-0.27 0.77
Vignette 3*Order	0.10	0.37	.71	-0.43 0.63
Step 3				
Gender*EC*RM	-0.17	-1.42	.16	-0.40 0.07
Gender*EC*Order	0.60	2.50	.01	0.13 1.08
EC*RM*Vignette 2	0.13	0.82	.41	-0.18 0.44
EC*RM*Vignette 3	0.15	0.99	.32	-0.15 0.44
EC*RM*Order	-0.28	-2.10	.04	-0.54 -0.02
Step 4				
Gender*EC*RM*Order	0.23	0.97	.33	-0.24 0.70

Table 12.

*Blame for Female Target as a Function of Predictor Variables, Using Anti-Rape Myth Vignette as Reference (Experiment 2).*

Variables	b	t	p	CI
Step 1				
Participant Gender	0.11	0.94	.35	-0.12 0.33
Order	-0.23	-2.12	.04	-0.45 -0.02
Vignette 1	0.05	0.35	.72	-0.22 0.31
Vignette 2	0.05	0.39	.70	-0.21 0.32
EC	0.04	0.72	.47	-0.08 0.16
RM	0.55	8.73	< .01	0.43 0.67
Step 2				
Gender*EC	0.17	1.35	.18	-0.08 0.42
Gender*RM	0.19	1.43	.15	-0.07 0.46
Gender*Order	-0.16	-0.71	.48	-0.61 0.29
Gender*Vignette 1	0.62	2.21	.03	0.07 1.18
Gender*Vignette 2	0.45	1.66	.10	-0.08 0.98
EC*RM	0.18	2.80	.01	0.05 0.30
EC*Vignette 1	0.08	0.51	.61	-0.24 0.41
EC*Vignette 2	-0.02	-0.11	.92	-0.29 0.26
EC*Order	0.12	0.90	.37	-0.14 0.37
RM*Vignette 1	-0.10	-0.57	.57	-0.44 0.24
RM*Vignette 2	-0.14	-0.92	.36	-0.43 0.16
RM*Order	-0.14	-1.04	.30	-0.39 0.12
Vignette 1*Order	-0.10	-0.37	.71	-0.63 0.43
Vignette 2*Order	0.15	0.57	.57	-0.37 0.67
Step 3				
Gender*EC*RM	-0.17	-1.42	.16	-0.40 0.07
Gender*EC*Order	0.60	2.50	.01	0.13 1.08
EC*RM*Vignette 1	-0.15	-0.99	.32	-0.44 0.15
EC*RM*Vignette 2	-0.02	-0.14	.89	-0.28 0.24
EC*RM*Order	-0.28	-2.10	.04	-0.54 -0.02
Step 4				
Gender*EC*RM*Order	0.23	0.97	.33	-0.24 0.70

*Table 13.*  
*Support for Male Target as a Function of Predictor Variables, Using Control Vignette as Reference (Experiment 2).*

Variables		b	t	p	CI	
Step 1						
Participant Gender		-0.08	-0.71	.48	-0.31	0.15
Order		-0.08	-0.73	.46	-0.30	0.14
Vignette 2		0.40	2.97	< .01	0.14	0.67
Vignette 3		0.21	1.53	.13	-0.06	0.48
EC		0.13	2.09	.04	0.01	0.25
RM		0.49	7.63	< .01	0.36	0.62
Step 2						
Gender*EC		0.02	0.17	.86	-0.24	0.29
Gender*RM		-0.13	-0.88	.38	-0.41	0.16
Gender*Order		-0.34	-1.41	.16	-0.82	0.14
Gender*Vignette 2		0.03	0.12	.91	-0.54	0.61
Gender*Vignette 3		0.21	0.69	.49	-0.38	0.79
EC*RM		0.12	1.83	.07	-0.01	0.25
EC*Vignette 2		-0.15	-0.93	.35	-0.48	0.17
EC*Vignette 3		-0.21	-1.22	.23	-0.56	0.13
EC*Order		0.11	0.82	.42	-0.16	0.38
RM*Vignette 2		-0.10	-0.62	.54	-0.43	0.22
RM*Vignette 3		0.17	0.94	.35	-0.19	0.53
RM*Order		-0.09	-0.66	.51	-0.36	0.18
Vignette 2*Order		-0.03	-0.12	.90	-0.58	0.52
Vignette 3*Order		-0.25	-0.88	.38	-0.81	0.31
Step 3						
Gender*EC*RM		-0.30	-2.38	.02	-0.55	-0.05
Gender*EC*Order		0.32	1.23	.22	-0.19	0.83
EC*RM*Vignette 2		0.11	0.62	.54	-0.23	0.44
EC*RM*Vignette 3		0.29	1.83	.07	-0.02	0.61
EC*RM*Order		-0.03	-0.22	.83	-0.31	0.25
Step 4						
Gender*EC*RM*Order		0.58	2.31	.02	0.09	1.08

Table 14.

*Support for Male Target as a Function of Predictor Variables, Using Anti-Rape Myth Vignette as Reference (Experiment 2).*

Variables		b	t	p	CI	
Step 1						
	Participant Gender	-0.08	-0.71	.48	-0.31	0.15
	Order	-0.08	-0.73	.46	-0.30	0.14
	Vignette 1	-0.21	-1.53	.13	-0.48	0.06
	Vignette 2	0.19	1.41	.16	-0.08	0.46
	EC	0.13	2.09	.04	0.01	0.25
	RM	0.49	7.63	< .01	0.36	0.62
Step 2						
	Gender*EC	0.02	0.17	.86	-0.24	0.29
	Gender*RM	-0.13	-0.88	.38	-0.41	0.16
	Gender*Order	-0.34	-1.41	.16	-0.82	0.14
	Gender*Vignette 1	-0.21	-0.69	.49	-0.79	0.38
	Gender*Vignette 2	-0.17	-0.61	.55	-0.73	0.39
	EC*RM	0.12	1.83	.07	-0.01	0.25
	EC*Vignette 1	0.21	1.22	.23	-0.13	0.56
	EC*Vignette 2	0.06	0.40	.69	-0.23	0.35
	EC*Order	0.11	0.82	.42	-0.16	0.38
	RM*Vignette 1	-0.17	-0.94	.35	-0.53	0.19
	RM*Vignette 2	-0.28	-1.76	.08	-0.58	0.03
	RM*Order	-0.09	-0.66	.51	-0.36	0.18
	Vignette 1*Order	0.25	0.88	.38	-0.31	0.81
	Vignette 2*Order	0.22	0.77	.44	-0.34	0.77
Step 3						
	Gender*EC*RM	-0.30	-2.38	.02	-0.55	-0.05
	Gender*EC*Order	0.32	1.23	.22	-0.19	0.83
	EC*RM*Vignette 1	-0.29	-1.83	.07	-0.61	0.02
	EC*RM*Vignette 2	-0.19	-1.34	.18	-0.47	0.09
	EC*RM*Order	-0.03	-0.22	.83	-0.31	0.25
Step 4						
	Gender*EC*RM*Order	0.58	2.31	.02	0.09	1.08



Table 15.

*Blame for Male Target as a Function of Predictor Variables, Using Control Vignette as Reference (Experiment 2).*

Variables	b	t	p	CI
Step 1				
Participant Gender	-0.03	-0.27	.79	-0.25 0.19
Order	0.21	1.89	.06	-0.01 0.42
Vignette 2	-0.32	-2.41	.02	-0.58 -0.06
Vignette 3	-0.10	-0.75	.45	-0.37 0.16
EC	0.04	0.60	.55	-0.08 0.16
RM	-0.48	-7.63	< .01	-0.61 -0.36
Step 2				
Gender*EC	-0.19	-1.43	.15	-0.45 0.07
Gender*RM	0.02	0.12	.91	-0.26 0.29
Gender*Order	0.31	1.30	.20	-0.16 0.77
Gender*Vignette 2	0.08	0.29	.77	-0.48 0.65
Gender*Vignette 3	0.18	0.61	.54	-0.40 0.75
EC*RM	-0.08	-1.24	.22	-0.21 0.05
EC*Vignette 2	-0.03	-0.17	.87	-0.34 0.29
EC*Vignette 3	0.03	0.19	.85	-0.30 0.37
EC*Order	-0.27	-2.05	.04	-0.53 -0.01
RM*Vignette 2	-0.08	-0.50	.62	-0.40 0.24
RM*Vignette 3	-0.25	-1.38	.17	-0.60 0.11
RM*Order	-0.07	-0.52	.61	-0.34 0.20
Vignette 2*Order	0.21	0.77	.45	-0.33 0.75
Vignette 3*Order	0.21	0.74	.46	-0.34 0.76
Step 3				
Gender*EC*RM	0.29	2.35	.02	0.05 0.54
Gender*EC*Order	0.01	0.04	.97	-0.49 0.51
EC*RM*Vignette 2	0.02	0.09	.93	-0.31 0.34
EC*RM*Vignette 3	0.06	0.39	.70	-0.25 0.37
EC*RM*Order	0.29	2.05	.04	0.01 0.56
Step 4				
Gender*EC*RM*Order	0.18	0.74	.46	-0.31 0.68

Table 16.

*Blame for Male Target as a Function of Predictor Variables, Using Anti-Rape Myth Vignette as Reference (Experiment 2).*

Variables	b	t	p	CI	
Step 1					
Participant Gender	-0.03	-0.27	.79	-0.25	0.19
Order	0.21	1.89	.06	-0.01	0.42
Vignette 1	0.10	0.75	.45	-0.16	0.37
Vignette 2	-0.22	-1.63	.10	-0.48	0.05
EC	0.04	0.60	.55	-0.08	0.16
RM	-0.48	-7.63	< .01	-0.61	-0.36
Step 2					
Gender*EC	-0.19	-1.43	.15	-0.45	0.07
Gender*RM	0.02	0.12	.91	-0.26	0.29
Gender*Order	0.31	1.30	.20	-0.16	0.77
Gender*Vignette 1	-0.18	-0.61	.54	-0.75	0.40
Gender*Vignette 2	-0.09	-0.34	.74	-0.64	0.46
EC*RM	-0.08	-1.24	.22	-0.21	0.05
EC*Vignette 1	-0.03	-0.19	.85	-0.37	0.30
EC*Vignette 2	-0.06	-0.41	.68	-0.35	0.23
EC*Order	-0.27	-2.05	.04	-0.53	-0.01
RM*Vignette 1	0.25	1.38	.17	-0.11	0.60
RM*Vignette 2	0.17	1.08	.28	-0.14	0.47
RM*Order	-0.07	-0.52	.61	-0.34	0.20
Vignette 1*Order	-0.21	-0.74	.46	-0.76	0.34
Vignette 2*Order	0.00	0.01	.99	-0.54	0.55
Step 3					
Gender*EC*RM	0.29	2.35	.02	0.05	0.54
Gender*EC*Order	0.01	0.04	.97	-0.49	0.51
EC*RM*Vignette 1	-0.06	-0.39	.70	-0.37	0.25
EC*RM*Vignette 2	-0.05	-0.33	.74	-0.32	0.23
EC*RM*Order	0.29	2.05	.04	0.01	0.56
Step 4					
Gender*EC*RM*Order	0.18	0.74	.46	-0.31	0.68

*Figure 1. Model depicting rape myths moderating the relationship between empathy and target judgments.*

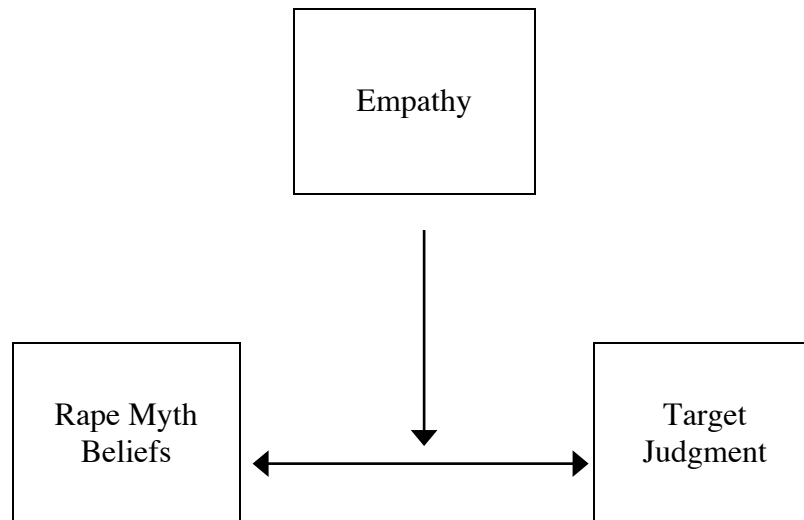
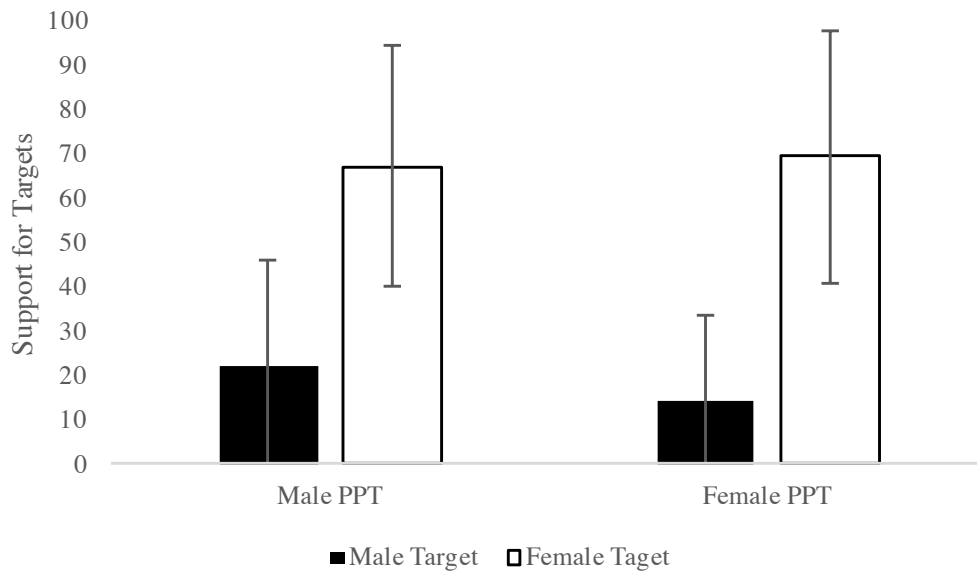
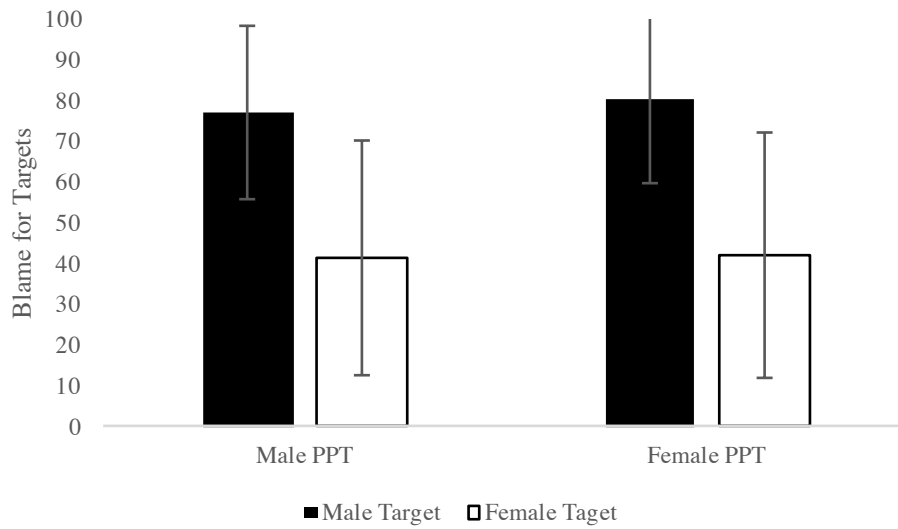


Figure 2. Means of participant gender and target gender for support of the targets (Experiment 1).



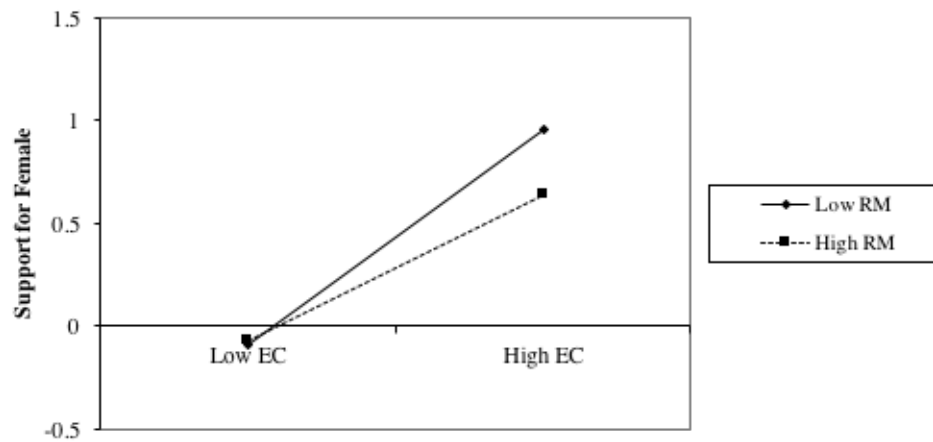
Note: Higher numbers on Y-axis indicate more support for target.

Figure 3. Means of participant gender and target gender for blame of the targets (Experiment 1).



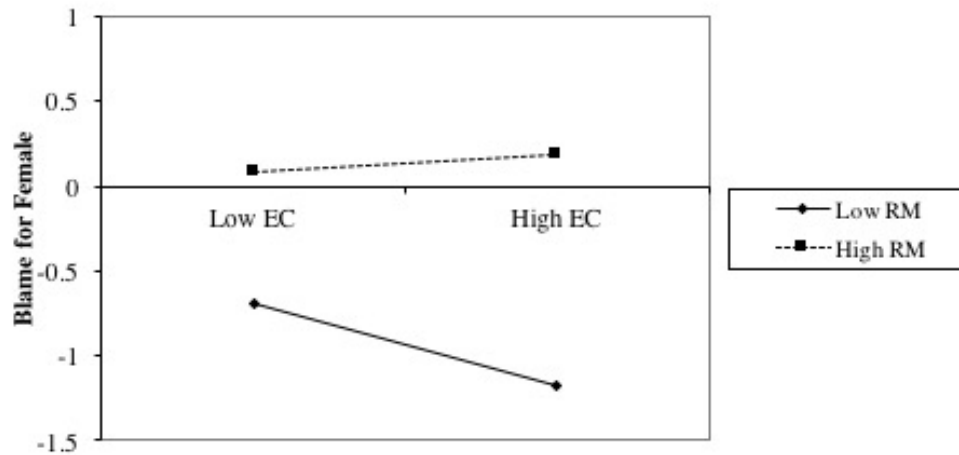
Note: Higher numbers on Y-axis indicate more blame for target.

Figure 4. Effects of the interaction of EC and RM for Support of the Female Target (Experiment 1).



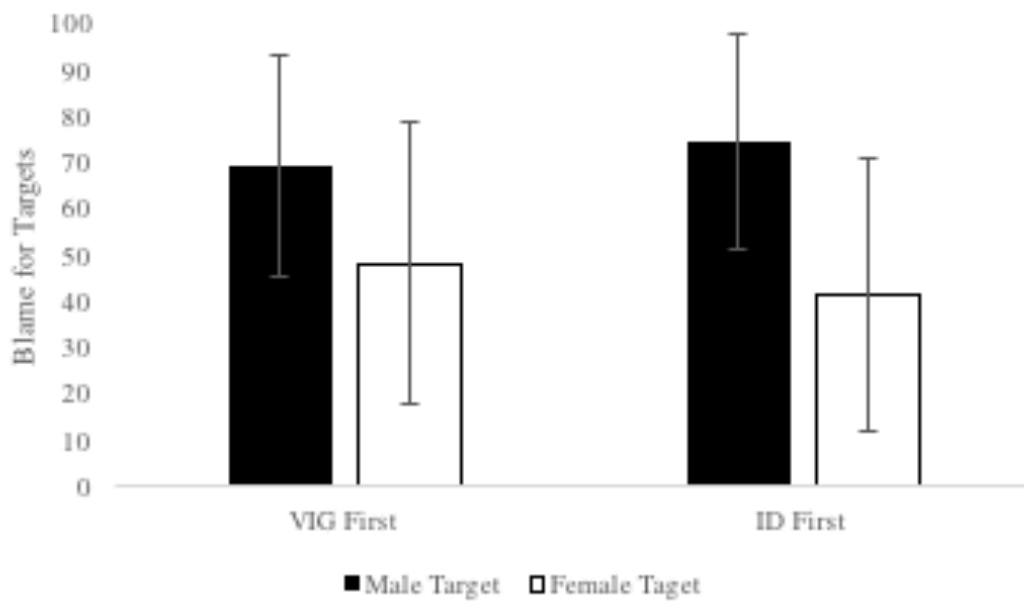
*Note: High or low EC indicates one standard deviation above or below the mean for empathic concern. High or low RM signifies one standard deviation above or below the mean for endorsement of rape myths. Higher numbers on Y-axis indicate more support for female target.*

Figure 5. Effects of the interaction of EC and RM for Blame of the Female Target (Experiment 1).



Note: High or low EC indicates one standard deviation above or below the mean for empathic concern. High or low RM signifies one standard deviation above or below the mean for endorsement of rape myths. Higher numbers on Y-axis indicate more blame for female target.

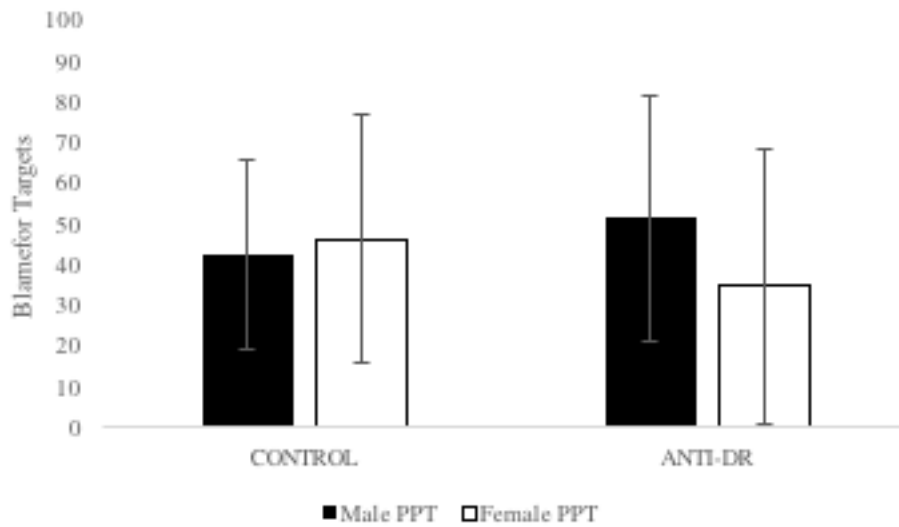
Figure 6. Means of order condition and target gender for blame of the targets (Experiment 2).



Note: Higher numbers on Y-axis indicate more blame for target.

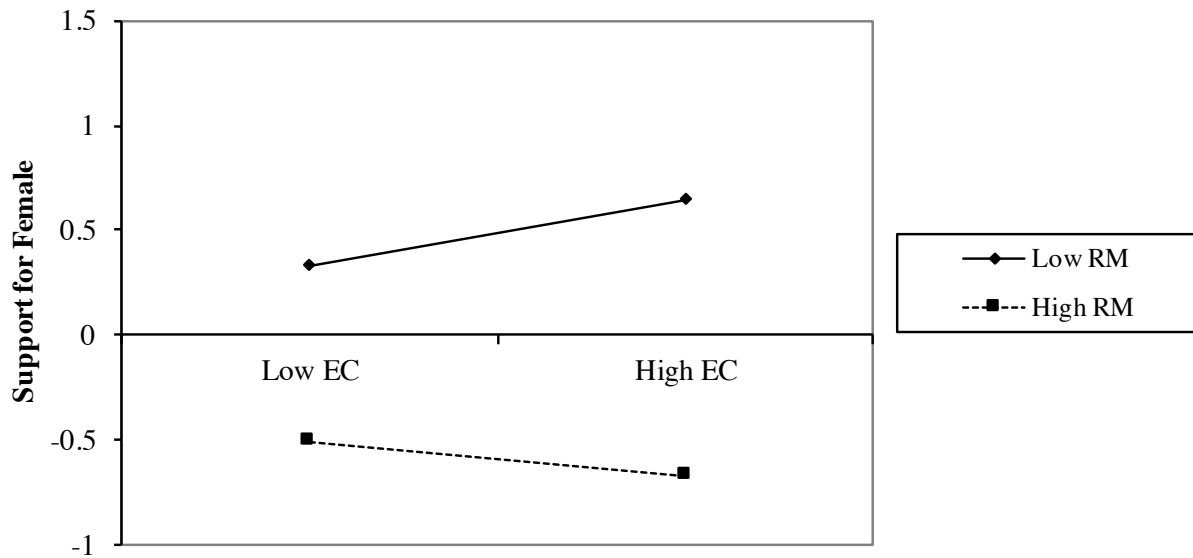


Figure 7. Effects of the interaction of participant gender and vignette type for blame of the female target (Experiment 2).



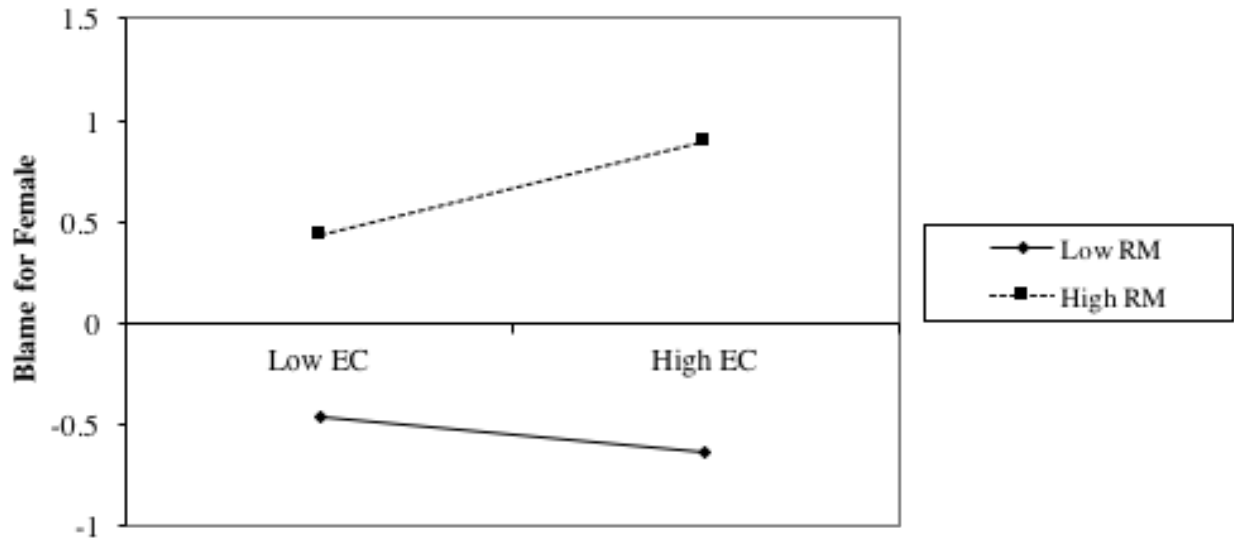
Note: Control signifies the control vignette and anti-RM signifies the vignette in which rape myths were less salient. Higher numbers on Y-axis indicate more blame for female target.

Figure 8. *Effects of the interaction of EC and RM for Support of the Female Target (Experiment 2).*



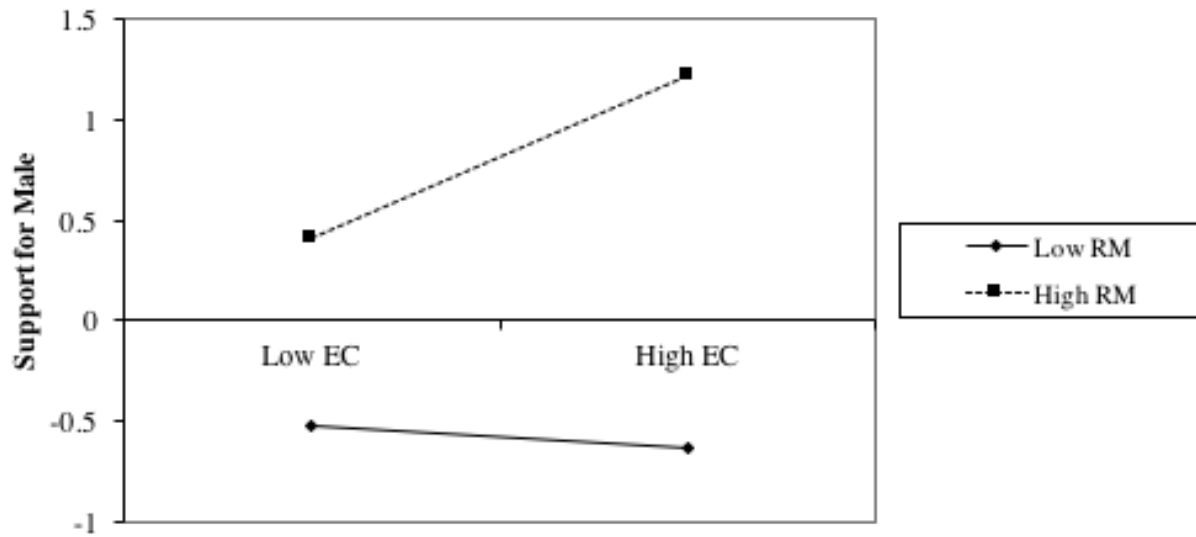
*Note: High or low EC indicates one standard deviation above or below the mean for empathic concern. High or low RM signifies one standard deviation above or below the mean for endorsement of rape myths. Higher numbers on Y-axis indicate more support for female target.*

Figure 9. Effects of the interaction of EC and RM for Blame of the Female Target (Experiment 2).



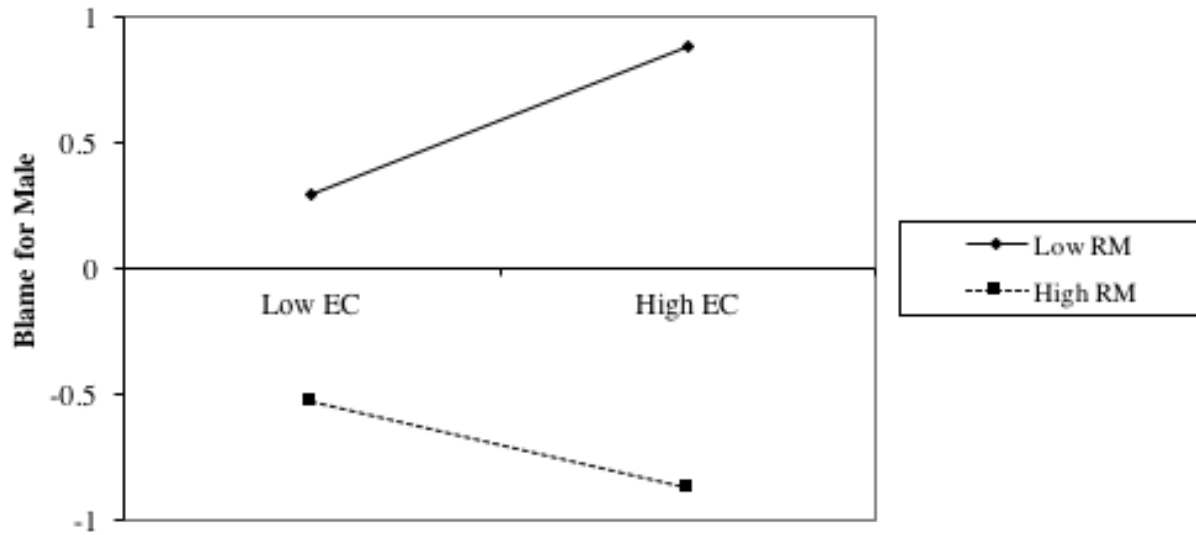
*Note: High or low EC indicates one standard deviation above or below the mean for empathic concern. High or low RM signifies one standard deviation above or below the mean for endorsement of rape myths. Higher numbers on Y-axis indicate more blame for female target.*

Figure 10. Effects of the interaction of EC and RM for male participants predicting support of the male target (Experiment 2).



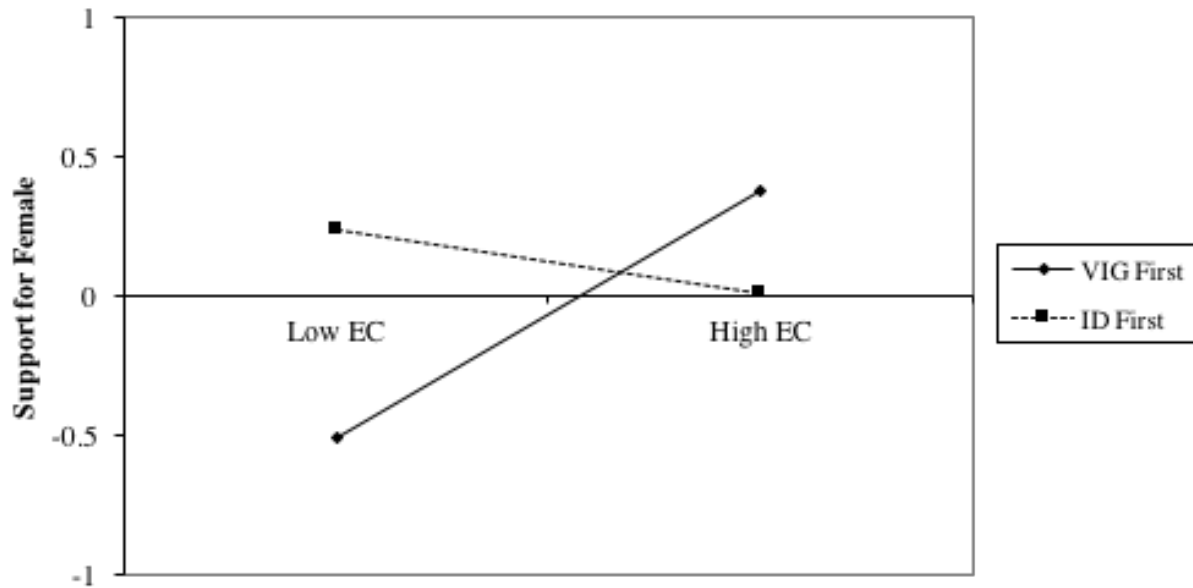
Note: High or low EC indicates one standard deviation above or below the mean for empathic concern. High or low RM signifies one standard deviation above or below the mean for endorsement of rape myths. Higher numbers on Y-axis indicate more support for male target.

Figure 11. Effects of the interaction of EC and RM for male participants predicting blame of the male target (Experiment 2).



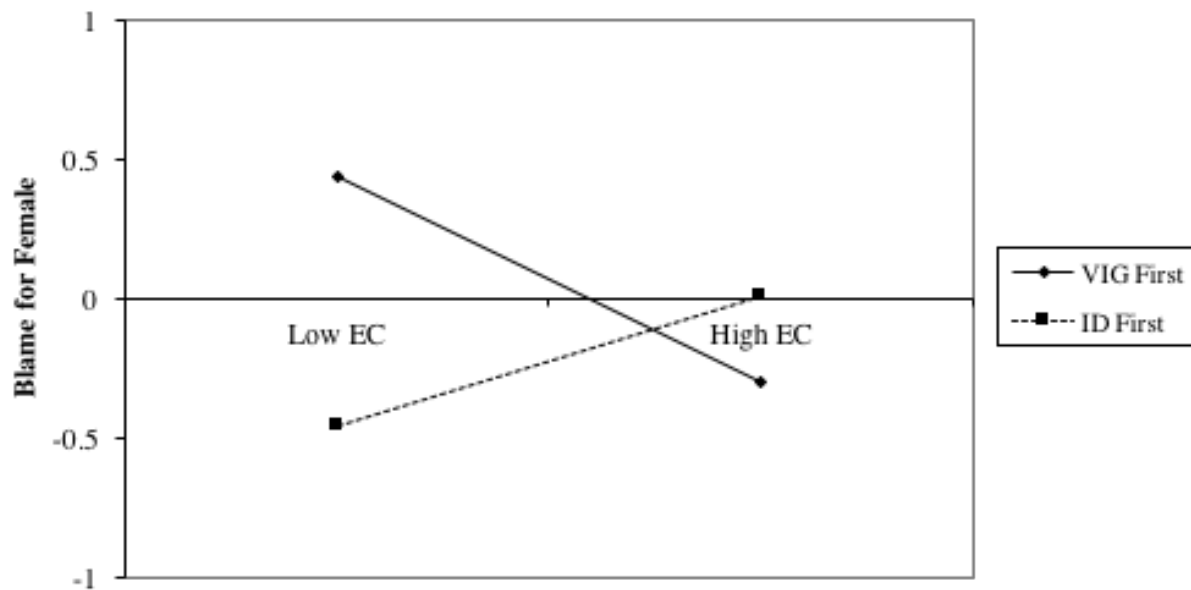
Note: High or low EC indicates one standard deviation above or below the mean for empathic concern. High or low RM signifies one standard deviation above or below the mean for endorsement of rape myths. Higher numbers on Y-axis indicate more blame for male target.

Figure 12. Effects of the interaction of EC and Order Condition for female participants predicting support for the female target.



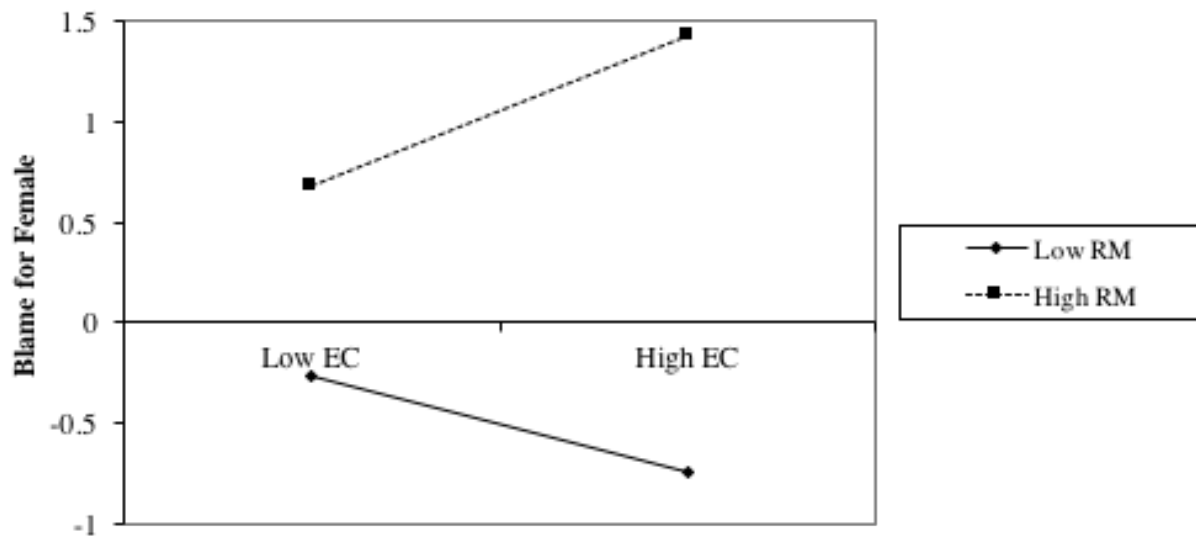
Note: High or low EC signifies one standard deviation above or below the mean for empathic concern. VIG first indicates condition in which vignette task was completed prior to individual difference block; whereas, ID first indicates individual difference block was completed prior to the vignette task. Higher numbers on Y-axis indicate more support for female target.

Figure 13. Effects of the interaction of EC and order for female participants predicting blame of the female target (Experiment 2).



Note: High or low EC signifies one standard deviation above or below the mean for empathic concern. VIG first indicates condition in which vignette task was completed prior to individual difference block; whereas, ID first indicates individual difference block was completed prior to the vignette task. Higher numbers on Y-axis indicate more blame for female target.

Figure 14. Effects of the interaction of EC and RM for vignette first condition, predicting blame of the female target (Experiment 2).



Note: High or low EC indicates one standard deviation above or below the mean for empathic concern. High or low RM signifies one standard deviation above or below the mean for endorsement of rape myths. Higher numbers on Y-axis indicate more blame for female target.



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### EDUCATION

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**Washington University in St. Louis**  
Ph.D. Student in Social Psychology  
Advisor: Alan Lambert

**St. Louis, MO**  
2015- Present

**Wake Forest University**  
M.A. Psychology  
Thesis: Examining the Role of Well-Being in  
Government

**Winston Salem, NC**  
2013-2015

**University of Florida**  
B.S. Psychology, Minor Anthropology  
Cum Laude, Phi Beta Kappa

**Gainesville, FL**  
2008-2012

### HONORS & AWARDS

---

Clara Mayo Grant, The Society for the Psychological Study of Social Issues	Spring 2016
Washington University in St. Louis Graduate Student Research Grant	Spring 2016
Washington University in St. Louis Academic Fellowship	Fall 2015 - Spring 2016
APS Student Travel Grant	2014
Wake Forest Alumni Travel Grant	2014
Wake Forest Summer Research Support Grant	Summer 2014
Florida Academic Scholars Award	Fall 2008-Spring 2012
Phi Beta Kappa	2012-Present
Thomas G. Pye Scholarship	Fall 2011
UF International Center Scholarship	2010

### PUBLICATIONS

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Peak, S., **Hanson, E.**, Eadeh, F., and Lambert, A. (2016). On the light versus dark side of empathy: Implications for intergroup dynamics in a diverse society. In W. Tate IV, N. Staudt, & A. Macrandner (eds) *The Crisis of Race in Higher Education: A Day of Discovery and Dialogue*.

Campbell, J.B, Jayawickreme, E, & **Hanson, E.** (2014). Measures of Moral Personality. In G. Boyle (ed.). *Handbook of Personality and Social Psychological Constructs*. New York: Elsevier.

### MANUSCRIPTS IN PREPARATION

---

**Hanson, E.,** Peak, S. Eadeh, F. & Lambert, A. (in preparation) On the Ironic Effects of Being Empathic: Consequences for Attitude Polarization and Intergroup Conflict.

Eadeh, F., Dorison, C., Peak, S., **Hanson, E.,** & Lambert, A. (in preparation) Towards an Integrative Model of anger-fueled rally effects.

### **CHAired SYMPOSIA**

---

**Hanson, E.** & Eadeh F. (July, 2016). On the Consequences of Threat for Political Attitudes-- Implications for the 2016 Election and Beyond. Symposium given at the annual meeting of the American Psychological Association in Denver, CO. Speakers: Tom Pyszczynski, Joann Sterling, Stephanie Peak

### **PRESENTATIONS**

---

**Hanson, E.,** Peak, S., & Lambert, A. (January, 2017). *On the Ironic Effects of Being Empathic: Consequences for Attitude Polarization and Intergroup Conflict*. Poster at the Society of Personality and Social Psychology's Annual Conference, San Antonio, TX.

**Hanson, E.,** Jayawickreme, E. (January, 2016). *The Pursuit of Happiness: Ideological Differences in Support for Government Involvement in Wellbeing*. Poster at the Society of Personality and Social Psychology's Annual Conference, San Diego, CA.

**Hanson, E.,** Borkowski J., Jayawickreme, E. & Blackie, L.E.R., (October, 2014). *Well-Being Behind the Veil: Assessing "Flourishing" Societies*. Poster presented at the Society of Southeastern Social Psychologists Annual Conference, Athens, GA.

**Hanson, E.,** Borkowski J., Jayawickreme, E. & Blackie, L.E.R., (May, 2014). *The Politics of Happiness: Are There Ideological Differences in Valuing Well-Being?* Poster presented at the American Psychological Societies Annual Conference, San Francisco, CA.

**Hanson, E.,** Borkowski J., Jayawickreme, E. & Blackie, L.E.R., (February, 2014). *Assessing "Flourishing" Societies: Ideological Differences in Valuing Well-Being*. Poster presented at the Political Psychology Preconference at the Society of Personality and Social Psychology's Annual Conference, Austin, TX.

### **RESEARCH EMPLOYMENT & EXPERIENCE**

---

Graduate Student Researcher, Washington University in St. Louis Alan Lambert, Ph.D.	2015-Present
Graduate Research Assistant, Wake Forest University E.J. Masicampo, Ph.D. Eranda Jayawickreme, Ph.D.	2013-2015
Research Assistant, University of Florida James Shepperd, Ph.D. Gregory Webster, Ph.D.	2011-2012

## **TEACHING EXPERIENCE**

---

Graduate Teaching Assistant, Washington University in St. Louis

Spring 2017: Social Psychology

Fall 2016: Experimental Psychology

Graduate Teaching Assistant, Wake Forest University

Spring 2015: Emotions

Industrial/Organization Psychology

Research Methods in Developmental Psychology

Fall 2014: Industrial/Organization Psychology  
Social Psychology

Spring 2014: Social Psychology

Fall 2013: Social Psychology  
Intro to Psychology

## **TEACHING TRAINING**

---

2016 Washington University in St. Louis  
Practicum in Teaching Psychology  
University Wide Teaching Assistants Training

## **BROWNBAG TALKS AT WASHINGTON UNIVERSITY**

---

April 2017 “On the Ironic Effects of Being Empathic: Consequences for Attitude Polarization and Intergroup Conflict”  
April 2017 “To Blame or Not To Blame: On the Effects of Empathy and Rape Myths”  
April 2016 “Empathy: Antidote or Accelerant to Intergroup Conflict?”

## **GUEST LECTURES**

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Spring 2017 Webster University, Judgment and Decision-Making, “Political Decision-Making”  
Spring 2016 Webster University, Judgment and Decision-Making, “Political Decision-Making”

## **PROFESSIONAL MEMBERSHIPS & AFFILIATIONS**

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Society for Psychological Study of Social Issues  
Society of Personality and Social Psychologists

American Psychological Science  
American Psychological Association

### **REVIEW EXPERIENCE**

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SPSP Student Poster Award Reviewer  
APSSC Student Reviewer

### **LANGUAGES**

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Spanish – Working Proficiency