THE INFLUENCE OF PERCEIVED THREAT ON MOTIVE ASYMMETRY AND INTERGROUP RELATIONS BETWEEN GROUPS IN CONFLICT

by

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Abstract

When considering motives for being in conflict, how do we explain why we are in conflict? How do we explain why others are in conflict with us? The Motive Bias is a specific intergroup bias in which the motives of the outgroup are perceived as due more to outgroup hate than ingroup love, and motives of the ingroup are perceived as more due to ingroup love than outgroup hate. In other words, we are in conflict because we want to protect our group and further our groups interests, but they are in conflict with us because they hate our group (instead of a similar desire to protect their group). This thesis explores two novel lines of research: how perceived threat relates to (Chapter 2) and influences (Chapter 3) the Motive Bias with groups in conflict, drawing upon intergroup literature investigating intergroup bias, with Integrated Threat Theory (ITT) as the framework. ITT posits that perceived threat increases prejudice, and research within intergroup bias indicates that threat is related to intergroup bias with increased threat relating to increased bias. With these considerations, we tested two different hypotheses of how threat may relate to the Motive Bias. Results of cross-sectional and longitudinal studies (Chapter 2) and experiments (Chapter 3) indicate that perceived realistic and symbolic threat relate to and influence the Motive Bias mainly through how the outgroups' motives are judged. We then explore how these findings may be expanded upon with further research, and how they may be applied to improving intergroup relations.

Dedication

I'd like to thank my family for being so supportive throughout this process, listening to my ramblings as I talked through ideas and for helping me stay grounded and regain perspective when needed. My friends around the UK for being there for me, for being an integral part of my support system as I navigate living abroad and completing the PhD. Thank you especially to my brothers, my Liverpool family, and my Birmingham family for accepting and embracing my quirkiness, oddities, and being there through it all.

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CHAPTER 1: INTERGROUP RELATIONS, INTERGROUP BIAS, AND HOW THREAT MAY RELATE TO EACH

According to the most recent UN estimate there are approximately 7.8 billion people in the world (United Nations, 2021) each belonging to various social groups with differing values, access to resources, and backgrounds. Intergroup relations encompass all interactions regarding or relating to group identification between individuals of differing groups, and between those groups (Tajfel, 1982). There is a certain amount of anxiety associated with contact and interactions between groups. This anxiety, and related emotions and cognitions, can often lead to prejudice against the outgroup or prejudgments in favour of the ingroup (Kim & Wojcieszak, 2018). It follows that targeting, and potentially reducing, these emotions and cognitions, such as anxiety and threat from the outgroup, may then reduce the bias or prejudicial thinking between groups. Stephan and colleagues (1985; 2002; 2016) investigated the relationship between perceived threat and prejudice and we use this theory to frame our research. The current thesis investigates the relationship between perceived threat from the outgroup and a specific bias, the Motive Asymmetry Bias coined by Waytz et al. (2014).

We begin by introducing some of the previous literature and research on intergroup relations and behaviours inherent in intergroup relations, specifically intergroup bias. This bias tends to favour the ingroup over the outgroup and may be exacerbated by simply making group membership more salient. Intergroup conflict is also studied within intergroup relations and adds an element of threat to relationships between groups. Previous Motive Asymmetry Bias research begins to address the question of how much more intergroup bias may be exacerbated by conflict. We then review this and other previous literature and research on threat and its relationship with intergroup bias, which leads to the current research: examining perceived realistic and symbolic threats and the Motive Bias, where people think that conflict

is due to the other group hating the ingroup or our own group acting positively toward the ingroup while not hating the outgroup.

The current research examines perceived symbolic and resource (realistic) threat. We delve into whether this threat relates to and influences intergroup bias, specifically the Motive Bias. This bias has been investigated infrequently beyond Waytz et al.' (2014) first studies in which they identified this specific bias. And although realistic and symbolic threat has been studied more, in relation to the topic of intergroup relationships, attempts to manipulate it have been less consistent and none have focused on the Motive Bias (Rios et al., 2018). This thesis attempts to fill this gap in the literature, utilizing cross-sectional and longitudinal designs, and quasi-experimental and experimental designs to understand both the relationship between threat and bias, and the influence of threat on bias.

1.1 Intergroup Relations

As social creatures, it is natural to want to belong and to be drawn towards those we see as likeminded or similar. From an early age, individuals begin to form self-identity (i.e., who am I), and also associate and identify with other individuals seen as like-minded or similar (Schellhaas & Dovidio, 2016). This process, broadly known as categorization (associating with or belonging to distinct groups), is one way the world is split into "manageable units" (Korte, 2007; Tajfel & Turner, 1979). Intergroup relations encompass the interactions both between individuals of these different groups, and between the groups overall. Intergroup relations are marked by an intergroup bias, which is a difference in how the ingroup and outgroup are perceived. Typically, this is a difference which favours the ingroup over the outgroup, referred to as ingroup bias (Schellhaas & Dovidio, 2016; Tajfel & Turner, 1979). There is a more positive feeling towards or associated with the ingroup as compared to the feeling towards the outgroup (Brewer, 1999; Molina et al., 2016). This

ingroup bias is so robust it is seen not only in natural groups, but minimal groups as well – where there is no previous tie or connection to the group outside the artificially created scenario or groups.

Not only is ingroup bias typical within intergroup relations, but there are some instances when intergroup behaviours are accentuated within intergroup situations. For example, intergroup behaviours, such as more attitudinal or cognitive intergroup bias, may be accentuated when information about social membership becomes more salient (Aberson, 2015; Giannakakis & Fritsche, 2011; Mancini et al., 2018). When members are made aware of their social membership, it may enhance the outgroup differences and sense of "other." These characteristics and information about group membership may become salient under different circumstances. One such circumstance may be in times of conflict.

1.2 Intergroup Conflict

Conflict has occurred between and among groups throughout history, ranging from relatively small conflicts to large-scale conflicts (McDonald et al., 2012; Voci et al., 2015). Intergroup conflict can influence intergroup behaviours, such as more attitudinal or cognitive ingroup bias. Previous research indicates that intergroup conflict and ingroup preference occur even in minimal groups (Tajfel & Turner, 1979). Outside of psychology, research in cultural anthropology also provides evidence for ingroup favouritism known as "tribalism" or "parochialism" between different groups (McDonald et al., 2012). Parochialism is defined here as the automatic tendency to favour members of one's own group over members of the outgroup. Tribalism, a similar concept, is a state of being organized into tribes or groups which is generally accompanied by a loyalty and favour of one's own tribe or group over other groups. Considering the evidence of ingroup favouritism in minimal groups and within cultural anthropology, over time within groups, members can become even more cohesive

and distort perceptions of the outgroup. This could result in more polarization, increased ingroup bias, and conflict (Nelson, 1989).

As intergroup conflict can increase intergroup behaviours, intergroup conflict is also related to perceived threat. Simply considering or encountering intergroup situations can "increase uncertainty and perceived threat" (Stewart et al., 2019). How much more may a situation of intergroup conflict increase uncertainty and perceived threat? Intergroup conflict may increase the salience of group membership, and so the comparison between the ingroup and outgroup becomes more pronounced. When the differences between the ingroup and outgroup are highlighted, this can lead to an increase in positive feelings towards the ingroup and an increase in negative feelings towards the outgroup (Balliet et al., 2014; Dunne, 2018).

Intergroup conflict occurs in minimal groups as well as natural settings, and can increase the salience of group membership. Groups in conflict offer an opportunity to investigate elements of intergroup relations (such as ingroup bias) in such situations of increased group-membership salience and increased perceived threat. The current research explores the relationship between perceived threat and intergroup bias for groups that are experiencing conflict.

1.3 Background – Threat and Intergroup Bias

Intergroup relations are marked by an ingroup bias, with more positive views and attitudes associated with the ingroup than with the outgroup. While ingroup bias is not inevitable, it does occur frequently. Group membership salience alone can influence intergroup bias, yet there are also other factors that can also relate to intergroup bias, such as threat. Previous research has investigated the relationship between contact with the outgroup and attitudes towards the outgroup (Kanas et al., 2015), and between perceived threat and negative attitudes towards the outgroup (Kanas et al., 2015; Lee et al., 2018; Riek, Mania, &

Gaertner, 2006). Kanas et al. (2015) investigated the relationship between interreligious contact and negative attitudes towards the outgroup, as well as perceived threat and attitudes towards the outgroup. They found evidence of a negative relationship between quantity and quality of contact and negative attitudes towards the outgroup, and a strong positive relationship between perceived threat and negative attitudes towards the outgroup. The more perceived threat, the more negative the attitudes towards the outgroup (Kanas et al., 2015). This research on intergroup contact helps provide some background and information on different situations in which ingroup bias may occur. A meta-analysis by Riek, Mania, and Gaertner (2006), found a strong relationship between more perceived threat and negative outgroup attitudes (r = .42 realistic threat; r = .45 symbolic threat). Lee et al. (2018) investigated the relationship between identification and intergroup bias in a study on Taiwanese and Chinese samples. They found a strong main effect of target group, with participants favouring the ingroup (Taiwanese) over the outgroup (Chinese mainlanders) (*eta2* = .10), and that with increased perceived threat, there was also an increase in intergroup bias, again which favoured the ingroup over the outgroup (Lee et al., 2018). Considering the influence that perceived threat has on outgroup attitudes, threat and threat perception should be considered in order to better understand the role of negative affect in intergroup relations, such as negative outgroup attitudes (Bromgard & Stephan, 2006). With this in mind, we investigated types of threat and the development of Intergroup Threat Theory (ITT), which is a theoretical framework developed by Stephan and Stephan (1985; 2000) to explain the relationship between threat and prejudice/bias.

1.3.1 Integrated Threat Theory

Stephan and Stephan (1985) developed Integrated Threat Theory, which begins to explain how threat and bias may be related. Integrated Threat Theory initially posited that

threat is composed of four different categories – realistic threat, symbolic threat, intergroup anxiety, and negative stereotypes (Stephan & Stephan, 1985; 2000). Realistic threats are those against the group's existence, power, and against the group's physical or material wellbeing (Stephan, Ybarra, & Bachman, 1999). Symbolic threats are those against or concerning the group's morals, values, norms, and attitudes – in other words the group's worldview (Stephan, Ybarra, & Bachman, 1999). Intergroup anxiety is a concern about negative outcomes for the self or negative evaluation from another group; for example, embarrassment, rejection, ridicule, and exploitation could be potential outcomes (Stephan & Stephan, 1985; Stephan, Ybarra, & Bachman, 1999). Negative stereotypes are shortcuts/heuristics that provide negative trait attributions to explain behaviour of the outgroup (Stephan, Ybarra, & Bachman, 1999). Overall, threats (comprised of these four categories) lead to prejudice and are considered when explaining prejudicial attitudes towards the outgroup.

1.3.2 Intergroup Threat Theory

Integrated Threat Theory has been revised recently and is now labelled as *Intergroup* Threat Theory. This revised theory argues that negative stereotypes are an antecedent of threat, because they make salient characteristics of the outgroup that could have a negative impact on the ingroup, for example aggressiveness, deviousness, and immorality (Stephan & Renfro, 2002; Stephan, Ybarra, & Morrison, 2009). They also argue that intergroup anxiety may be a subtype of threat because it centres on apprehensions about interacting with outgroup members relating to predicting negative results of intergroup interaction. As such, the most recent version focuses on Realistic and Symbolic threats, which are also the focus of the current thesis. For realistic (resource) threat, there is a concern for the actual existence of the ingroup and includes threat to one's resources, physical well-being, or political and economic power; this is often framed as a tangible loss (Spencer-Rodgers & McGovern,

2002; Stephan, Ybarra, & Bachman, 1999). Sherif (1966) spoke of realistic threats in his Realistic Group Conflict Theory, yet focused mainly on the competition for scarce resources (Tajfel & Turner, 1979). Symbolic threat concerns the "group differences in morals, values, norms, standards, beliefs, and attitudes" (Stephan, Ybarra, & Bachman, 1999). It is a threat of the sociocultural system being obstructed, undermined, or violated (Spencer-Rodgers & McGovern, 2002). For example, Stephan, Ybarra, and Morrison (2009) identified group symbolic threats as ones related to belief systems, religion, ideology, philosophy, morality, and worldview. These Realistic and Symbolic threats are considered at both the individual and group level. The current research focuses mainly on group level Realistic and Symbolic threat, but we explore both here briefly.

Individual Realistic and Symbolic Threat. In addition to revising the four subtypes of threat into two, Stephan, Ybarra, and Morrison's (2009) Intergroup Threat Theory (ITT) includes subtypes of individual and group threat. Individual threat is one that is considered personal, specific to the individual, and does not necessarily impact the group as a whole. It may also be threat to someone who is close to that individual, such as a family member (Rosenstein, 2008). The response to individual symbolic or realistic threat is different than the response to group symbolic or realistic threat. Utilizing the Intergroup Prisoner's Dilemma paradigm, Weisel and Zultan (2016) found that individuals are less likely to cooperate with a group if there is seen to be an individual threat. If an individual is seen as under threat, they are more likely to do what is best for the individual rather than the group, such as withholding monetary contribution to the group, or may attempt to protect their individual self-identity (Petriglieri, 2011).

Group Realistic and Symbolic Threat. Group threat is one that is towards the group in which a person belongs, even if the individual will not directly be harmed, such as

economic competition which does not impact the individual but leads to a decline in the group's status (Rosenstein, 2008). One extreme example of this is during times of war, when an individual may not be under threat of physical harm themselves, but their group is being threatened. Overall, "prosocial behaviours directed at the group increase during times of war" (Weisel & Zultan, 2016, p. 123). If there is a threat to the group, individuals are more likely to do what is good for the group rather than specifically the individual (Weisel & Zultan, 2016). These group-level threats do not occur only in extreme circumstances such as times of war, but instead, may appear whenever groups are interacting and thinking at the group level (Rosenstein, 2008). This research focuses on examining perceived symbolic and realistic threat at the group level.

1.3.3 Threat

People tend to respond to threats by protecting themselves, often manifesting as hostility towards the perceived source of threat, even if there are typically no negative feelings associated with the group that is seen as threatening (Rosenstein, 2008). Much threat research focuses on how threat influences the view of the outgroup, not necessarily how it influences the view of the ingroup. Yet, research on intergroup bias demonstrates that intergroup bias is more often due to ingroup positivity as opposed to outgroup derogation (Brewer, 1999; 2016; Greenwald & Pettigrew, 2014). Thus, it is not clear how perceived threat may influence intergroup bias. In intergroup relations, ITT posits that negative stereotypes or attitudes lead to the perception of threat, both realistic and symbolic, which then lead to prejudice (Bromgard & Stephan, 2006; Stephan & Stephan, 2000). While prejudice is a likely outcome of threat, it is not clear whether it predominately increases outgroup derogation, ingroup positivity, or both. ITT also posits that perceived threats are important, and influenced by some of the same factors as actual threats. For example, when

feeling threatened, individuals are generally more biased against, and often have more negative reactions to the outgroup, and negative stereotypes of the outgroup may become more salient (Allen & Sherman, 2011; Kosic et al., 2014); yet, the ingroup can separately also be perceived more positively (Kosic et al., 2014). Previous literature indicates that ingroup positivity and outgroup derogation may be influenced, with the more likely being ingroup positivity (Brewer, 1999; 2016; Greenwald & Pettigrew, 2014).

Different Types of Threat. When considering perceived threats, there are many lines of research which focus on different types of threat. These include mortality threats, abstract or concrete threats, and meaning or physical threats. Our research focuses on perceived threats, which may fall in any of these categories.

Mortality Threats. Mortality threats are death-related concerns, or those that bring to conscious awareness an individual's mortality (Burke et al., 2013). These threats are related to Terror Management Theory (TMT), in which the cultural worldview is a way that individuals plan to leave a mark after death, and they want it to be a good one (Burke et al., 2013). When anything happens that makes knowledge of one's mortality more salient, this threat can influence a person to consider their worldview, and the positivity of this worldview related to their group membership. Each person wants to be able to know that they will leave a positive mark after inevitable death. With intergroup relations, the individual wants to be sure that the group with which they identify is perceived positively.

Abstract/Concrete Threats. Yogeeswaran and Dasgupta (2014) examined two different types of construal of multiculturalism, abstract and concrete. An abstract construal focuses on the big picture or "why it is important". One example could be a consideration of the importance of the main goals of multiculturalism. A concrete construal focuses on "how" things will be implemented. One example could be a list of specific ways multiculturalism

could be achieved. They found a difference in prejudicial attitudes towards Hispanic Americans when multiculturalism was presented in abstract terms as compared to concrete terms. In both experiments 1 and 2, an abstract presentation of multiculturalism resulted in less prejudicial attitudes against Hispanic Americans while a concrete presentation of multiculturalism resulted in more prejudicial attitudes against Hispanic Americans (Yogeeswaran & Dasgupta, 2014). An abstract threat would be one that focuses on the big picture or why something is threatening as opposed to a concrete threat which focuses on a specific manner or how something is a threat.

Meaning/Physical Threats. Crawford (2017) posits that threats are differentiated into meaning and physical threats – physical threats are threats to physical well-being, such as physical harm or death. Any threat not to a person's physical well-being would be considered a meaning threat. He also states that Liberals and Conservatives respond similarly to meaning threats, but differently to physical threats. This distinction and debate is relevant to our threat manipulation development and measured threat studies, as discussed later, as our research does not support his findings. All threats used in our research would be considered to be "meaning" threats because we used measures that focus on threats to one's group resources and values, and that does not include threats of death, physical trauma, or experiencing crimes at either the abstract or concrete levels. Our "meaning" threat measure consistently shows differences in responses from Liberals and Conservatives, as demonstrated in chapters 2 and 3.

Perceived threat may fall under these different categories above, but our research focuses on Realistic and Symbolic threat. This gives a unique opportunity to not only investigate a wide range of threat perception, but potentially separate the measures to examine different types of threat individually. This is not the focus of the current research, but may be

useful in informing future exploration in threat research. As previous research with Realistic and Symbolic threats have collapsed these two into one measure of threat, within this thesis the analyses also utilize a general measure of threat combining these together.

1.3.4 Intergroup Bias

As established previously, intergroup relations are often marked by an intergroup bias, where the ingroup is generally favoured over the outgroup. In addition to the tendency to show this ingroup bias, members of the ingroup can evaluate the ingroup as loving while simultaneously evaluating the outgroup as hateful, or can show only one of the two while maintaining an overall ingroup bias (Parker & Janoff-Bulman, 2013; Weisel, 2015). The effect is so robust that research in social psychology reveals multiple biases indicating an ingroup preference. The Correspondence Bias is the tendency to overestimate the importance of dispositional factors and underestimate the importance of situational factors in describing behaviours (Gilbert, 1998; Krull et al., 1999). Studies on the attribution bias went a step further and showed that individuals tended to view positive behaviours of the ingroup as stable, internal features and negative behaviours as temporary, or due to situational factors. This pattern of attributions was reversed when considering outgroup members (Kosic et al., 2014). This attribution bias can also be seen in linguistic research, with the Linguistic Intergroup Bias (LIB). Abstract language is used to describe positive behaviours and attributes of the ingroup and concrete language to describe negative behaviours and attributes, producing a favourable LIB. In contrast, concrete language is used to describe positive behaviours and attributes of the outgroup and abstract language to describe negative behaviours and attributes of the outgroup: the unfavourable LIB (Porter et al., 2016). This gives the implication that positive behaviours are more likely to be repeated by ingroup

members, and less likely by outgroup members; and vice versa with negative behaviours. This indicates an intergroup bias, again, which favours the ingroup over the outgroup.

1.3.5 Threat and Intergroup Bias

The previous sections have introduced literature on Intergroup Threat Theory (ITT), different types of threats, and an overview of the intergroup bias in intergroup relations. ITT is the framework within which our research is conducted and establishes the relationship between threat and prejudice or intergroup bias (Brewer, 2016; Stephan & Stephan, 2000; 2016). There is an established relationship between threat and intergroup bias which may be both inferred from the varying relationships between threat perception and bias, and previous studies on threat and attitudes.

Beginning with perception, an individual's interpretation of ambiguous stimuli can be changed based upon the valence of other information presented (Mathews & Mackintosh, 2000). Mathews and Mackintosh (2000) found that negative primes led participants to be more likely to interpret ambiguous stimuli as negative. This negative priming could be similar to the anxiety felt from intergroup contact. Besides a generally negative (or positive) valenced scenario, when a person holds a negative bias they may be more likely to attach a threatening meaning to ambiguous stimuli (Muris et al., 2008). It follows then that a person may be more likely to both perceive threat and attach a negative meaning to potentially ambiguous situations or interactions with a group that their own group is in conflict with (i.e., a negative situation). In a similar manner, the existence of intergroup bias (towards the ingroup, against the outgroup) may act as a negative trigger that may increase the likelihood of individuals perceiving threat in an ambiguous situation.

More directly, previous research indicates that there is a relationship between perceived threat and intergroup bias in which more threat increases bias (Lee et al., 2018),

and that perceived threat does predict more negative outgroup attitudes (Riek, Mania, & Gaertner, 2006), though the Riek meta-analysis did not include studies that measured attitudes towards the ingroup. Further research provides support for ITT and the influence of realistic and symbolic threat on prejudice. Makashvili et al. (2018) used an ITT framework to investigate the relationship among perceived threat, prejudice, gender, and religiosity, and found that increased Realistic and Symbolic threat did predict increased prejudice. Both ingroup favouritism and outgroup negativity were increased with higher levels of realistic threat (Wlodarczyk et al., 2014). Furthermore, media exposure to threatening characteristics of groups can influence attitudes towards the outgroup (Seate & Maestro, 2016), members of a threatened group are prone to adopt negative attitudes towards outgroups perceived as threatening (Duckitt, 2001), and realistic and symbolic threat increase negative evaluations of the outgroup (Aberson et al., 2020). Taken together, this research indicates that there is a strong relationship between threat and evaluations of the ingroup and outgroup. These evaluations are part of intergroup bias – the view of the ingroup and the view of the outgroup. Other research has demonstrated that when realistic threat is related to more ingroup favouritism and less prosocial behaviours toward the outgroup the more likely there is to be a bias in the form of ingroup positivity, outgroup negativity, or both. When researchers focused on ingroup bias, they found that ingroup favouritism was increased in intergroup threat condition, but not in a condition that simply highlighted the ingroup-outgroup categorizations (Yuki & Yokota, 2009). Others have shown that stereotype threat produces more ingroup favouritism for high school boys and girls when the threat was blatant compared to when it was subtle (Laurin, 2016).

While the existence of a relationship between threat and bias has been well established, the nature of the relationship and the nature of intergroup bias deserves more

scrutiny (Brewer, 2016; Stephan & Stephan, 2000; 2016). The research in this thesis is focused on whether symbolic and realistic threat are related to the more novel Motive Asymmetry Bias and the nature of that relationship. While the asymmetry bias is a form of intergroup bias, there is a dearth of research on it. What is clear, is that there are separate views of the ingroup and the outgroup that drive intergroup bias. This leads to an interesting point within our research where there is a possibility of asymmetry in views. It has been established that there is an ingroup bias that accompanies self-categorization and group membership, yet this does not necessarily mean this bias will be perceived or noted. An individual may show ingroup bias, but not perceive him or herself as biased (Judd et al., 2005). This could lead one to think the source of intergroup bias is bias on the part of the outgroup, rather than one's own ingroup. Because the Motive Asymmetry Bias is composed of views of the ingroup and the outgroup, we are able to explore the relationship to threat more thoroughly.

1.4 Bias and Motive Asymmetry

1.4.1 Ingroup Bias and Conflict Motivation

Within intergroup relations, intergroup bias may manifest as ingroup love, outgroup hate, or both (Brewer, 1999; 2016). In conflict, the comparisons between the ingroup and outgroup become more salient which leads an individual to have more positive feelings towards the ingroup, and negative feelings towards the outgroup (Dunne, 2018). These comparisons highlight the positive attributions of the ingroup as compared to the outgroup. When considering the motives of each group, the motives can be attributed to either "ingroup love" or "outgroup hate." Ingroup love is a tendency to be positive towards the ingroup, and a desire to help the ingroup further their goals or make a gain, relative only to the ingroup's current state. Outgroup hate is a motivation to hurt the outgroup or increase the ingroup's

advantage over the outgroup (Halevy, Bornstein, & Sagiv, 2008; Halevy, Weisel, & Bornstein, 2012).

The difference between relative gain due to ingroup love and relative gain due to outgroup hate is subtle. Ingroup love is increasing the positivity or gain for the ingroup, as compared to the ingroup itself, by helping the ingroup but not directly hurting the outgroup. Outgroup hate is increasing the positivity or gain of the ingroup as related to the outgroup by hurting the outgroup or decreasing the outgroup's status (Halevy, Weisel, & Bornstein, 2012; Weisel, 2015). Utilizing the *Intergroup Prisoner's Dilemma* (IPD) and *Intergroup Prisoner's Dilemma-Maximizing Differences* (IPD-MD) paradigms to explore intergroup and intragroup levels of intergroup conflict, Weisel and Böhm (2015) investigated reasons for ingroup members' behaviours in conflict. Ingroup members were more likely to prefer ingroup love over outgroup hate, especially when the cost of an ingroup advantage was blatant hostility or harm to the outgroup. However, when the cost was not blatant harm to the outgroup, outgroup hate was the "predominant behavioural motivation," especially when there was strong enmity towards the outgroup (Weisel & Böhm, 2015, p. 116). This implies that while the preference for ingroup love is there, it is possible for the ingroup to be motivated by outgroup hate. The way each group perceives the conflict and their actions is important.

1.4.2 Ingroup Bias versus Outgroup Derogation

As previously stated, the positive attributes of the ingroup are generally highlighted as compared to the outgroup, and there is an intergroup bias that favours the ingroup (Brewer, 1999; Molina et al., 2016). Research on intergroup bias has found that, in general, intergroup bias tends to be due more to ingroup positivity than to outgroup derogation (Brewer, 1999; Greenwald & Pettigrew, 2014). This intergroup bias can be seen not only in motives (ingroup love or outgroup hate), but in actions, and in the reasoning behind behaviours. It can be

demonstrated through more positivity toward one's ingroup, or through outgroup derogation. There is research on both ingroup bias and outgroup derogation as reasoning behind behaving and feeling more positively towards the ingroup as compared to the outgroup.

Ingroup Bias. On one hand, some research supports a tendency towards ingroup bias as opposed to outgroup derogation. Xu et al. (2009) investigated empathic responses to painful and non-painful images of both ingroup and outgroup members. They found that the responses were quicker and/or greater for members of the ingroup as compared to the outgroup (Xu et al., 2009). Brown et al. (2006) conducted studies on emotional reactions to pictures of members of the ingroup and outgroup. Responses were heightened, both positive and negative, for pictures of members of the ingroup as opposed to the outgroup, indicating an ingroup bias as opposed to outgroup derogation (Brown et al., 2006). Van Bavel and Cunningham (2009) found similar results where evaluations of others shifted in different social contexts. When participants were self-categorized into similar groups, they indicated a bias towards that particular ingroup, irrespective of other automatic racial biases and evaluations (Van Bavel & Cunningham, 2009). This indicates that the ingroup bias towards even a minimal group, was stronger than derogation of an established outgroup. The self-categorization superseded other biases, indicating an ingroup bias without an increase of negative attitudes toward the outgroup. In researching multiple empirical paradigms and different studies on discrimination in the United States, Greenwald and Pettigrew (2014) argue that the majority of disparate treatments of the ingroup and outgroup were due to ingroup favouritism rather than outgroup hostility. These findings supported previous research findings by Brewer (1999) that showed that ingroup love was more prevalent than outgroup derogation. Overall, the majority of the paradigms and results indicate that it is more

likely that groups show discrimination by differential favouritism rather than differential hostility. This implies ingroup bias as the mechanism rather than outgroup derogation.

Outgroup Derogation. On the other hand, other research supports a tendency towards outgroup derogation as opposed to an ingroup bias. Harris and Fiske (2006) investigated neural responses to pictures of members of extreme outgroups. They found that some extreme outgroups may elicit a lowered response in the medial prefrontal cortex, which is associated with thinking about people, as opposed to thinking about objects. This implies the dehumanization or derogation of members of that outgroup more than an increased positive view of the ingroup (Harris & Fiske, 2006). People tend to show higher empathic responses towards similar individuals, but it is unclear whether the underlying mechanism is due to ingroup favouritism or outgroup derogation or dehumanization. Research on Oxytocin (OT) shows that it can influence empathy within groups and alter emotion perception and can be used to examine these processes (Van Ijzendoorn & Bakemans-Kranenburg, 2012). Shamay-Tsoory et al. (2013) studied the influence of oxytocin (OT) on empathic responses towards pain felt by members of the ingroup and outgroup. They found that oxytocin enhanced the empathic response towards members of the outgroup, but not towards the ingroup (Shamay-Tsoory et al., 2013), suggesting a decrease of outgroup derogation without an increase of ingroup favouritism.

Outgroup derogation may also occur in only specific instances of intergroup bias. For example, when there is no accountability or when actions would be anonymous, it may be more common for ingroup members to be hostile towards the outgroup, or be more willing to cause harm to the outgroup (Greenwald & Pettigrew, 2014). An early field experiment in prejudice conducted by LaPiere (1934) found no evidence of blatant hostility or discrimination. In the 1930s, researchers toured the Southwestern United States with two

collaborators of Asian descent and asked at different establishments for food and accommodation. At this time, it was common for there to be prejudice and discrimination towards those of Asian descent, who were considered the outgroup. Very few places denied services, which would be blatant hostility and discrimination towards the outgroup. However, when an anonymous survey was sent to the same individual establishment owners asking whether they would refuse service to a patron of Asian descent, the majority said they would not "accommodate members of the Chinese race" (Greenwald & Pettigrew, 2014, p. 677). Within the current research, the focus on ratings of motives for conflict, as opposed to a more direct or blatant negative reaction towards the outgroup, may influence individuals to be more willing to admit negative views of the outgroup.

According to Intergroup Threat Theory (ITT), negative stereotypes lead to threat, which then lead to psychological and behavioural reactions, such as prejudice and discrimination (Stephan & Renfro, 2002). Again, these reactions may be through ingroup bias or outgroup derogation. However, when anxious or under threat, negative stereotypes of the outgroup may become more salient, and the ingroup member more likely to interpret outgroup behaviour as negative, as compared to the ingroup behaviour (Kosic et al., 2014; Molina et al., 2016). This would be compounded on the bias already felt towards the ingroup and against the outgroup. Ingroup members would be even more likely to think negatively of the outgroup when they perceived that the outgroup poses a threat to the ingroup in some way, such as when two groups are in conflict (Molina et al., 2016). Yet, there is a fair amount of research demonstrating ingroup bias when people are under threat (Laurin, 2016; Weisel & Böhm, 2015, Wlodarczyk et al., 2014) and that much of the research on threat and intergroup bias has examined outgroup attitudes much more than ingroup attitudes (Riek, Mania, & Gaertner, 2006). Thus, there is a dearth of research examining attitudes toward both the

ingroup and outgroup when people perceive threat. Considering this, we were interested specifically in how these motives of ingroup love and outgroup hate may be ascribed by, and to, the ingroup and outgroup when in conflict.

1.4.3 Motive Asymmetry Bias

Building on these concepts of bias and disparate views of the ingroup and outgroup, researchers investigated ingroup bias in the motives ascribed to the ingroup and outgroup for being in conflict. Waytz et al. (2014) studied natural groups in intractable conflict. Participants in all studies were randomly assigned to either rate the motives of their own group or rate the motives of the outgroup for being in conflict on two aspects: Love (ratings of empathy, compassion, and kindness) and Hate (ratings dislike, disdain, and hate). The studies by Waytz et al. (2014) revealed a motive bias present in groups in conflict, coined "Motive Asymmetry." When asked about the motives for being in conflict, the ingroup's motives were ascribed to positive reasons, or ingroup love, and the outgroup's motives were ascribed to negative reasons, or to outgroup hate. The interesting thing about this bias is that both groups in conflict responded in the same way, which can lead to the groups not understanding why the other group is responding negatively when their group is not. The researchers studied this phenomenon and replicated the Motive Asymmetry Bias findings cross-culturally in both Israeli/Palestinian (studies 2-4) and American Republican/Democrat (studies 1 and 5) samples (Waytz et al., 2014). Further studies have used these findings as background for studying intergroup relations, but there has been little to no research investigating how threat relates to or influences this bias.

1.5 Motive Asymmetry Bias and Threat

As stated earlier, previous research and literature establishes that threat and intergroup bias are strongly related. An increase of threat may influence the Motive Bias as well or may

potentially be one of the antecedents for the bias. The current research will examine two different hypotheses about how threat may relate to the Motive Bias, a Group Threat Effect or a Negativity Bias.

1.5.1 Group Threat Effect

The Group Threat hypothesis draws upon the Intergroup Threat Theory (ITT) and Social Identity Theory (SIT) literatures. Given that we have already reviewed the ITT literature, we will focus on SIT and how it adds to this hypothesis. Within this theory, ingroup members are motivated to perceive the ingroup positively, and to strive for not only differentiation from the outgroup, but positive distinctiveness (Brewer, 1999; Tajfel & Turner, 1979). The focus is on the group, and how an individual's self-esteem is influenced rather than an external influencer such as perceived threat from the outgroup.

Social Identity Theory. Social Identity Theory (SIT) posits that an individual derives part of their self-concept (i.e. social identity) and self-esteem from the groups to which they belong. The group's beliefs, norms, and values begin to form a part of the individual's identity, and the person begins to see themself as a representative of that group (Terry et al., 2000). The more an individual identifies with a social group, the more likely they are to be inclined to draw the attitudes, behaviour, and values of that group (Tajfel & Turner, 1979). If any of this part of their identity feels threatened, such as through a negative perception of the group, the individual may cling more to that group identity and protect its positivity. Where Integrated Threat Theory focuses on elements of the outgroup, SIT focuses on identity and self-esteem as reasons for prejudice, discrimination, or threat. The focus is on the group, self-esteem, and distinctiveness.

Dickerson and Kemeny (2004) identified a context in which an individual perceives that an important aspect of the self could be negatively viewed or judged by others, coined

"social evaluative threat" (SET) (p. 358). "Humans are driven to preserve the social self – are vigilant to threats that may jeopardize their social esteem or status (p. 357). Using this model, Dickerson et al. (2009) tested whether participants in a social evaluative threat (SET) and non-SET condition differed on physiological responses associated with stress and social threats. They found that social threats elicited a stress response, which may be similar to anxiety. Perceived social threats, such as ones to the ingroup's resources or values, may increase anxiety, and the bias towards the ingroup and against the outgroup.

Since, according to SIT, individuals derive part of their identity from groups to which they belong, under a condition of threat, such as SET, the individual may then be motivated to decrease that feeling of stress and think more positively of the ingroup. If the group were threatened, the individual may then be motivated to protect the positive identity and attributes of the ingroup (Tajfel & Turner, 1979). Social Identity Theory focuses on the ingroup, and how perception of the ingroup influences an individual's self-esteem and identity. The focus is on the group, rather than an external influencer such as perceived threat from the outgroup, yet, it is clear that feeling threatened could lead to protecting the positive identity of the group by enhancing the view of one's ingroup or derogating the outgroup. A similar prediction can be made for Intergroup Threat Theory where threat has been shown to be strongly associated with intergroup bias, but little research has examined attitudes toward both ingroups and outgroups in the same study.

Group Threat Effect and Intergroup Relations. One way to have positive distinctiveness is to make the outgroup comparatively negative, and a threat to the group's perceived value may further lead to outgroup derogation (Riek, Mania, & Gaertner, 2006). Regarding motive asymmetry, this would mean the outgroup is motivated more by negative reasons (outgroup hate) than the ingroup. Reviewing the literature on different models

explaining spectator aggression, Branscombe and Wann (1992) found that for those who identified with a particular group, a perceived threat to the ingroup led to an increased intergroup bias favouring ingroup members. Studies which manipulated perceived threat to the ingroup found that individuals who identify more with the ingroup showed more bias against the outgroup in the high threat condition than the low threat condition (Branscombe & Wann, 1994; Martiny et al., 2011). This suggests that a threat to the ingroup would influence the individual to think more positively about the ingroup and more negatively about the outgroup. Therefore, according to the Group Threat hypothesis, the more threat a group perceives, the stronger intergroup bias would be and this would occur through ingroup bias and outgroup derogation both increasing.

1.5.2 Negativity Bias

Realistic and Symbolic threat posed by an outgroup is likely to influence an individual's cognition, attitudes, perception, and behaviour (Parker & Janoff-Bulman, 2013; Weisel, 2015). According to clinical and counselling phobia literature, individuals who hold phobias or are generally anxious tend to be more vigilant to threats (Mogg, Philippot, & Bradley, 2004). This could be due to a hypervigilance towards threatening stimuli, or a difficulty in disengaging attention from the threatening stimuli (Koster et al., 2004). Previous researchers have conducted experiments with varying paradigms to further understand whether this vigilance towards threatening stimuli is due to hypervigilance or a difficulty in disengagement. The following sections outline how previous researchers have investigated both hypervigilance and difficulty in disengagement as mechanisms for attendance to threatening stimuli. What is clear, whether through hypervigilance or difficulty of disengaging, is that there is an attentional bias towards threatening stimuli. It is possible that

within intergroup relations, the bias towards one's own group and against the outgroup, may act similarly to these and result in more attention paid towards threat.

Hypervigilance. According to general cognitive models of anxiety, anxious individuals are more likely to allocate attention to threatening stimuli than to non-threatening or neutral stimuli (Mogg, Philippot, & Bradley, 2004). Eysenck's (1992) hypervigilance theory posits that anxiety influences the attentional system, even in the absence of threatening stimuli. Building on this, research has utilized the Dot Probe Paradigm to test if and how threatening stimuli influence attention (Koster et al., 2004). Mogg, Bradley, et al. (2004) utilized a pictorial version of the Dot Probe task on non-clinical student population, split by their scores on a blood-injury fear scale. This was due to the high threat pictures chosen being likely to depict attack, injury, and mutilation – a very specific stimuli that may be influenced by individuals' fear of blood. Reaction time analyses indicated higher vigilance for high threat stimuli, as compared to low threat or neutral (Mogg, Bradley, et al., 2004). Mogg, McNamara, et al. (2000) utilized a version of the Dot Probe Task, with results also indicating higher vigilance towards threatening stimuli as compared to non-threatening stimuli. Mogg, Philippot, & Bradley (2004) utilized a version of the Visual Probe Task with angry, happy, and neutral faces. A comparison of reaction times between the stimulus types indicate an increased bias score for angry faces – this indicates a vigilance to threat (Mogg, Philippot, & Bradley, 2004). With other studies, there is overall an indication of increased vigilance and an attentional bias towards negative stimuli (such as threats) as compared to positive stimuli (Bantin et al., 2016; Derryberry & Reed, 2002; Wilson & MacLeod, 2003).

Difficulty in Disengagement. While there are studies supporting a hypervigilance to threatening stimuli, there are also studies providing support for a difficulty in disengaging from threatening stimuli (Koster et al., 2004). Derryberry and Reed (2002) utilized another

experimental paradigm for testing attentional bias, a spatial orienting task with threatening stimuli relevant to the task. Participants completed a motivated game with rewards for hitting the target quickly and accurately, where the threatening location would be the one causing participants to lose points. Reaction time analyses indicated anxious individuals had difficulty in disengaging from the threatening stimuli, rather than simply vigilance towards threatening stimuli. Fox et al. (2002) investigated reaction time data to cued facial expressions (angry, happy, neutral), and found that participants indicated a difficulty in disengaging from negative or emotional stimuli as compared to neutral stimuli. Across three studies, Yiend and Mathews (2001) utilized emotionally threatening pictures to measure attentional bias. Results indicated that participants held an attentional bias in which it was difficult to disengage from the threatening stimuli (Yiend & Mathews, 2001).

Considering the research on both hypervigilance towards threatening stimuli and difficulty in disengaging from threatening stimuli, what is most clear is that there is an attentional bias towards threatening stimuli. A meta-analysis of studies looking at the threat-related attentional bias indicates there is support for anxious individuals holding a threat-related bias (Bar-haim et al., 2007). In addition, Cisler and Koster (2010) conducted a review of the mechanisms of attentional bias to threat studied and explained by different researchers. They reviewed many different methodologies, paradigms, and theories of attentional bias and concluded that these attentional biases include elements of hypervigilance to threatening stimuli (called “facilitated attention”), difficulty in disengaging from threatening stimuli (“delayed disengagement”), plus later “attentional avoidance” of the threatening stimuli (Cisler & Koster, 2010, p. 211). Taken together, this research on hypervigilance, difficulty in disengagement, and reviews of attentional bias to threat indicate that there is an attentional bias towards threatening stimuli.

Alongside this attentional bias, research into neurological processes in reacting to threat indicates that threat response is a relatively automatic process on its own (Chekroud et al., 2014). Lantos et al. (2020) investigated neural responses of non-Muslim Caucasian Western participants to short video clips of a stereotypical Muslim person (considered an outgroup) making 1) a threatening statement, 2) a reconciliatory statement, or 3) a neutral statement. The brain regions activated when watching the threatening statements suggest quick, automatic processes, and "might suggest that the threatening statements captured the attention of participants to a higher degree than the non-threatening statements" (Lantos et al., 2020, p. 9). Again, supporting an attentional bias towards threatening stimuli at the neurological level. This attentional bias towards threatening stimuli, or focus on threat, could lead to, or facilitate, a focus on such negative aspects or judgements of the ingroup's and outgroup's motives. With this focus or attentional bias on these negative aspects, it could follow that it is easier for participants or group members to also focus on the negative motives of the outgroup and ingroup. This attentional bias and focus on threat, or the negative, is the basis for the Negativity Bias hypothesis.

Negativity Bias and Intergroup Relations. Whether due to a hypervigilance towards threat, or difficulty in disengaging, individuals who hold phobias or severe anxieties tend to selectively attend to threatening stimuli and information (Bar-haim et al., 2007; Mogg, Bradley, et al., 2004; Mogg, McNamara, et al., 2000). Relating to groups and intergroup relations, the general bias against or anxiety held towards members of outgroups may function similar to phobias – inducing an attentional bias to threatening stimuli. If a group member, simply through the nature of group membership, holds the bias towards their own group (and a little against the outgroup) this bias may have a similar result as phobias and anxiety, leading to an attentional bias towards intergroup threat. In other words, and following

this line of reasoning, this ingroup bias could lead to an attentional bias towards threatening stimuli relating to the outgroup and the ingroup. If the group member is already in a negative threat-attending mindset following the general bias held against the outgroup, they may be more likely to attend to or notice the more negative motives of both the ingroup and the outgroup. With these considerations, the Negativity Bias hypothesis posits that when one is under threat, or reports a higher perception of threat, the positivity of motivations ascribed to the ingroup will decrease, just as the negativity of motivations ascribed to the outgroup will increase. It is a general increase in the negative motivations ascribed to both the ingroup and outgroup in conflict, due to an increased attention to threats.1.6 Threat Perception and Motive Asymmetry

Understanding whether threat influences the asymmetry bias may help in reducing bias and improving intergroup relations. When under threat, perception is an important factor (Bromgard & Stephan, 2006; Semyonov et al., 2004). Threat perception and bias are related, and bias can influence perception (Riek, Mania, & Gaertner, 2006; Wlodarczyk et al., 2014). When we hold a negative bias, we tend to attach threatening meaning to otherwise ambiguous stimuli (Muris et al., 2008). The tendency for ingroup bias may be exacerbated when in contact with outgroups and increase the likelihood of perceiving threat.

Stephan and Renfro (2002) proposed a revised Intergroup Threat Theory model, in which the four types of threats in their Integrated Threat Theory were decreased to two: Realistic and Symbolic threats to either the group or the individual, and there are both psychological and behavioural reactions to these threats. In their research on the Motive Asymmetry Bias, Waytz et al. (2014) noted that understanding how threat can influence this bias can be important in potentially reducing long standing conflict. Despite this, there has

been little research on perceived threat and its relationship with, or influence on, the Motive Bias. The current research aims to fill these gaps in the research on intergroup relations.

This thesis explores factors that could either exacerbate or reduce the Motive Bias, specifically perceived threat. Studies by Makashvili et al. (2018) provided evidence to support Integrated Threat Theory in that Realistic and Symbolic threat do account for prejudice. Regression analyses indicated that Realistic and Symbolic threat did predict prejudice, with higher threat leading to more prejudice (Makashvili et al., 2018). A comparison of different models of threat, prejudice, and responses to the outgroup indicated the best fit was the model with prejudice mediating the relationship between threat and response to the outgroup (Wlodarczyk et al., 2014). Increased threat related to increased prejudice against the outgroup, and greater ingroup favouritism, and less prosocial responses towards the outgroup (Wlodarczyk et al., 2014). Considering the link between threat and prejudice, and that threat and intergroup bias are related, we were interested in how perceived threat may be related to bias. More specifically, we were interested in the Motive Asymmetry Bias. The first studies in Chapter 2 investigate measured perceived threat and its relationship with the Motive Bias. To date, no studies have examined the Motive Bias in this way. This research utilizes both cross-sectional and longitudinal designs to garner a more complete view of the relationship between perceived threat and the Motive Bias.

1.7 Current Thesis

Integrated Threat Theory (ITT) explores the relationship among stereotypes, threat, and prejudice. Of particular interest is the relationship between threat and prejudice, which is a form of bias. ITT posits that threat influences prejudice (Stephan & Renfro, 2002; Stephan, Ybarra, & Morrison, 2009). In intergroup relations, there is a general intergroup bias that favours the ingroup, which is also related to perception of threat (Makashvili et al., 2018;

Wlodarczyk et al., 2014). Social Identity Theory (SIT) generally assumes that social groups and membership in those groups have a value attached. Members want their group to be comparatively positive (Tajfel & Turner, 1979). Therefore, positive social identity is very much based on comparative positivity. This comparative positivity can be achieved in three main ways: through an absolute ingroup gain [which may include an outgroup gain as long as the ingroup gains more], through an outgroup loss [which may not include an ingroup gain as long as the outgroup is more negative], or a combination of the two. In general, ingroup members prefer increased comparative positivity over absolute gain. When the choice was between a greater increase to the ingroup overall, or a smaller comparative gain, ingroup members were more likely to choose the smaller comparative gain (Tajfel & Turner, 1979).

Within the framework of ITT, SIT may be useful in explaining how threat and bias are related. It may be that conflict does increase intergroup behaviours, or attitudes and judgements such as the intergroup bias, but does not influence how the ingroup sees itself. Less importance is placed on maximizing the ingroup's gains or positivity on its own than on maximizing the difference between the ingroup and the outgroup - even if this is at the expense of a greater objective absolute ingroup gain. In much research this is known as a Maximum Difference (M.D.) strategy instead of a Maximum Ingroup Profit (M.I.P.) strategy (Tajfel & Turner, 1979). More recent research on intergroup relations found that groups are more likely to pursue a strategy of maximizing the difference between the groups over equality to both (Moscatelli & Rubini, 2013), and over an M.I.P. strategy (Tajfel et al., 1971; Vaughan et al., 1981). Yet, given that there is little research examining the relationship of threat to both ingroup bias and outgroup derogation within the same study, it is possible that intergroup bias is increased through one or both routes.

The ingroup bias may be manifested by either ingroup love or outgroup hate. While the overall more positive view of the ingroup is maintained, the pattern of ingroup bias, the amount in which the ingroup is seen as more positive than the outgroup, may shift in different ways. The difference in views between the ingroup and outgroup may shift because as perceived threat increases, the ingroup is seen as more negative, while the outgroup is also seen as more negative, but to a greater degree. Alternatively, the view of the ingroup may stay constant as perceived threat increases (neither more positive nor negative), and is comparably more positive because the outgroup alone is seen as more negative as perceived threat increases. In either situation the ingroup bias is maintained as the ingroup is seen as more positive than the outgroup.

This thesis explores two novel lines of research on how perceived realistic and symbolic threat may be related to and influence the motive bias for groups in conflict, within samples of American Republicans and Democrats. This focus on a U.S. context is due to the nature of the groups (political groups which are in what is deemed to be intractable conflict), and due to Waytz et al. (2014) examination of these same groups in their research which coined the Motive Asymmetry Bias. Chapter 2 explores the relationship between measured perceived threat and the Motive Bias. Study 1 utilizes a cross-sectional design to investigate the relationship between measured perceived threat and the Motive Bias. Study 2 utilizes a longitudinal design to investigate the relationship between measured threat and the Motive Bias over time, and then we can visualize any similarities in the pattern of results over time to the pattern of results at a single time point. We discuss the implications of our findings related to intergroup relations. (This chapter is submitted as a stand-alone section suitable for publication in a peer-reviewed journal conforming to the standards and guidelines of an alternative format thesis).

Chapter 3 explores the influence of manipulated threat on the Motive Bias in groups in conflict. It stands as a theoretical chapter on manipulated threat and the development of a viable threat manipulation, split into two parts, including eight experiments. Part 1 outlines the six experiments relating to the development of a viable threat manipulation. These six experiments test three different threat manipulations based on manipulations used by Morrison and Ybarra (2008; 2009). One editorial manipulation, and two separate threat scale manipulations using questions from Stephan, Ybarra, and Bachman's (1999) 15-item threat from immigrants scale on a sample of American Republicans and Democrats. Part 2 outlines the two final experiments that extend the work on manipulated threat and the Motive Bias, following our main line of inquiry on threat and how it relates to and influences the Motive Bias. These two experiments test the third threat scale manipulation on the Motive Bias in a sample of American Republicans, the subset for whom the threat manipulation was more successful.

The final chapter discusses the findings of both lines of research, measured and manipulated threat, and how they can be interpreted regarding improving intergroup relations. It outlines the main findings and results of all studies and experiments, bringing together each to gain some insight to how intergroup relations may be improved. Lastly, we discuss potential for future research to expand upon and explore these ideas further.

CHAPTER 2: MEASURED THREAT AND THE MOTIVE ASYMMETRY BIAS

2.1 Abstract

Previous research has investigated intergroup bias related specifically to motives ascribed to groups in conflict, called the Motive Asymmetry Bias (Waytz et al., 2014). While there is also previous research on threat and its relationship with intergroup bias, we were interested in the novel area of perceived threat and how it relates to this Motive Bias. We designed two studies, cross-sectional (Study 1) and longitudinal (Study 2), to investigate the relationship between measured perceived threat and the Motive Asymmetry Bias. We recruited samples of American Republican and Democrats, groups in intractable conflict, for both studies to complete an online survey measuring perceived threat and the Motive Bias. Study 1 $N = 635$, Study 2 $N = 641$ (part 1), $N = 500$ (part 2).

We measured perceived threat utilizing an altered version of Stephan and Stephan (2002) perceived threat from the outgroup and measured the Motive Bias using Waytz et al. (2014) measure of the Motive Bias. Regression analysis across studies provide consistent support for the Motive Bias (interaction ps < .001; $\eta_p^2 = .258$ [study 1], $\eta_p^2 = .263$ [study 2, time 1], $\eta_p^2 = .324$ [study 2, time 2]). Regression analyses across studies do not support our hypotheses about how perceived threat is related to the Motive Bias, however, significant interactions between threat and party focus indicate a relationship does exist (interaction ps < .001; $R^2 = .062$ [study 1], $R^2 = .054$ [study 2, time 1], $R^2 = .037$ [study 2, time 2]; $p < .025$, $R^2 = .010$ [study 2, between times 1 and 2]).

Data supported neither of our hypotheses about how threat relates to the Motive Bias, with findings indicating own party ratings were not related to Motive Bias ratings, and other party ratings were with perceived threat. This is important in future research in improving

intergroup relations as it helps inform different ways to intervene to improve intergroup relations.

2.2 Introduction

Much research has demonstrated that humans have strong affiliations to social groups and a strong need to belong to groups. From an early age, we begin to form personal and collective identities, and begin to associate with others who we consider similar to ourselves (Baumeister & Leary, 1995; Covert & Stefanone, 2020; Schellhaas & Dovidio, 2016). This need to belong is shown in previous empirical reviews (Baumeister & Leary, 1995), and in recent studies manipulating inclusion and exclusion in groups through fictitious Facebook scenarios (Covert & Stefanone, 2020). Regardless of the group(s) individuals identify with, the ingroup is typically favoured over the outgroup. It is important to consider aspects that may influence this ingroup bias, such as threat from the outgroup and whether threat influences ingroup favouritism, outgroup derogation, or both.

Intergroup relations are often marked by intergroup bias in which there is a more positive feeling associated with the ingroup compared to the outgroup, which has been called ingroup bias (Brewer, 1999; Molina et al., 2016). Ingroup bias is seen in all groups and combination of which group is considered the “ingroup” or the “outgroup”; as Stephan and Stephan (2016) summarized, “each group is an outgroup to the other group” (p. 142). Ingroup bias is also seen in minimal groups experiments where the groups to which participants are assigned have no previous meaning or ties to the participants, nor do they have any meaning outside of the experimental setting; participants show ingroup bias toward their arbitrarily assigned group (Aberson, 2015; Brewer, 1999; Mancini et al., 2018; Molina et al., 2016). Whether in an experimental or natural setting, ingroup bias exists and may manifest through ingroup favouritism, outgroup hate, or a combination of the two (Brewer, 2016).

Various research within intergroup relations provides evidence of intergroup bias, favouring the ingroup, in both experimental and natural settings. Appiah et al. (2013) manipulated the topic valence, whether positive or negative, and subject race, whether black or white, of people in articles in a fictitious online newspaper. They measured participants' choices of article to read, and the time taken perusing each article. Participants indicated a bias towards positively valenced articles, and towards ones which portrayed their own group, regardless of topic valence (Appiah et al., 2013). This experiment provided evidence for ingroup bias in the choice of these natural groups (race), within the experimental setting. Balliet et al. (2014) conducted a meta-analysis of studies on intergroup discrimination in cooperation and cooperative decision making between ingroups and outgroups. In all studies they observed an ingroup bias and there was "no significant difference between results of studies using natural or experimentally manipulated groups" (p.1569). Regardless of experimental or natural setting, participants across studies indicated a bias towards helping their ingroup. This extends across age as well, as shown with Bian et al. (2018) examined children's gazes on the allocation of resources to puppets, both ingroup and outgroup depending on the condition. Children's gaze was longer when limited resources were allocated to the outgroup as compared to the ingroup, indicating a violation of expectation. Analyses indicate a preference for ingroup support when there are minimal resources or cognitive load (Bian et al., 2018). Together, these studies provide evidence of ingroup bias in both experimental and natural settings, with a preference for the ingroup.

As evidenced, there is an ingroup bias indicating preference for the ingroup in many settings, yet the perception of ingroup bias may differ. The perception of ingroup bias may differ between the people observing it, either an ingroup and outgroup member, and based where the bias originated. An individual may show ingroup bias, on an individual and group

level, but not perceive him or herself to be biased (Judd et al., 2005). He or she, and the ingroup as a whole, may also perceive biased reasoning in the outgroup without recognizing the possibility of the same biased reasoning in themselves (Connor et al., 2020). This indicates an asymmetry of perception of the ingroup and outgroup for intergroup bias – from the ingroup's perspective, the outgroup is capable of biased judgments, yet the ingroup does not show this biased judgment. From this perceptual asymmetry, one could conclude that any bias between groups is due to the outgroup instead of the ingroup. Thus, it may be that this asymmetry extended to perceptions of the outgroup as being biased against the ingroup without the ingroup recognizing its own self-preference (i.e., ingroup preference or ingroup favouritism) and potential bias against the outgroup.

Ingroup bias (preference towards the ingroup) can be seen in both experimental and natural settings, and the asymmetry of views between the ingroup and outgroup indicates an awareness, or consideration, of both the ingroup and the outgroup. There are factors that can influence these views and attitudes towards both the ingroup and outgroup, including making social and group membership more salient, and perceived threat. When information about social and group membership is accentuated, the general preference towards the ingroup (Mancini et al., 2018), level of uncertainty, and perceived threat from the outgroup (Stewart et al., 2019) may all be increased. Giannakakis and Fritsche (2011) examined ingroup bias and threat within the frameworks of Social Identity Theory (SIT) and Terror Management Theory (TMT) by manipulating the salience of social identity and mortality salience. The salience of group identity, and group norms can interact with threat (mortality salience) to influence ingroup bias. Further research indicates that perceived threat from the outgroup predicts general outgroup attitudes (Lee et al., 2018; Riek, Mania, & Gaertner, 2006), as perceived threat increases, negative attitudes towards the outgroup also increase (Aberson et al., 2020;

Kanas et al., 2015; Schlueter et al., 2008), and threat primes influence attitudes towards the outgroup (Brambilla & Butz, 2013, study 2). Taken together, this provides evidence of a relationship between threat and bias (and other intergroup attitudes) which can be studied further.

As threat and bias are related, some previous research has investigated specifically how. Threat has the potential for wide-ranging areas of study, including different frameworks (Terror Management Theory, Integrated Threat Theory, Social Identity Theory), and many different types of threats (Mortality Threats, Physical threats, Abstract/Concrete threats, Realistic/Symbolic threats). However, this research focuses on perceived realistic and symbolic threats as related to intergroup bias. Stephan and Stephan (2000) developed the Integrated Threat Theory, which explores and defines the relationships between threat and bias. The first instantiation of this theory included four different categories of threat: intergroup anxiety, negative stereotypes, realistic threat, and symbolic threat. Later instantiations of this theory, renamed to *Inter*group Threat Theory (ITT), reduced the number of threats to two: realistic and symbolic threats. Negative stereotypes are now considered an antecedent to threat, and intergroup anxiety is a subtype of realistic and symbolic threat (Rios et al., 2018; Stephan & Renfro, 2002; Stephan, Ybarra & Morrison, 2009; Stephan, Ybarra, & Morrison, 2015). Situations and expectations can increase these threat perceptions directly or they could increase negative stereotypes or intergroup anxiety, which can feed into and exacerbate threat perceptions. Intergroup Threat Theory hypothesizes that increased perceptions of symbolic threats and/or resource threats (i.e., realistic) can increase negative attitudes towards the group viewed as the source of the threat (Stephan & Stephan, 2016). While there is not a mention of positive attitudes towards the ingroup explicitly, there is the concession that under certain circumstances there may be positive outcomes to prejudice

(such as positive behaviours towards the outgroup). Because of this focus of Intergroup Threat Theory, the current research also focuses on resource (realistic) threats and symbolic threats.

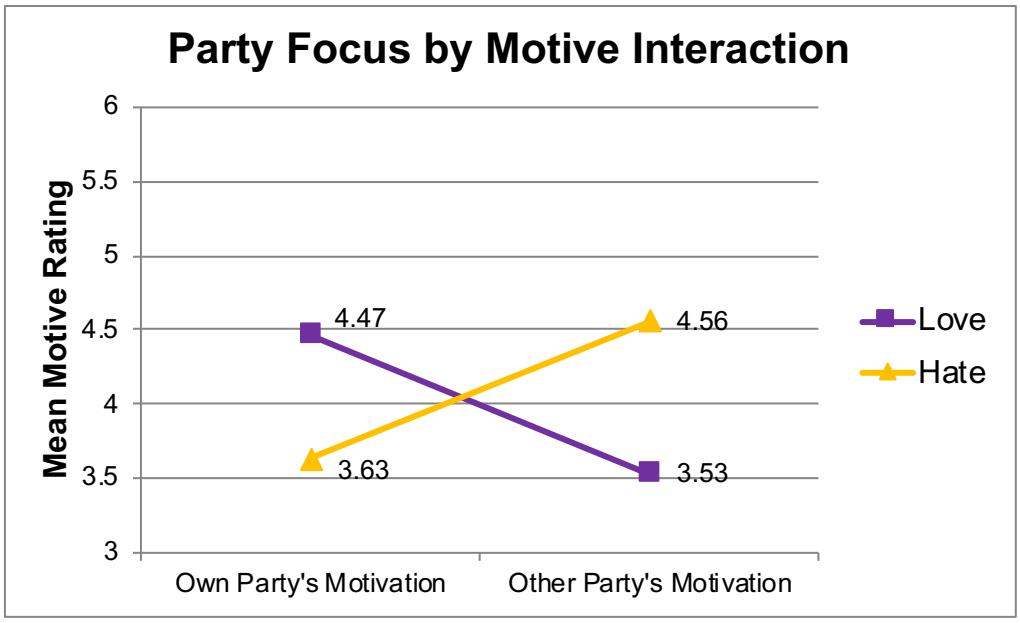
Previous research by Waytz et al. (2014) on intractable conflict between groups revealed a Motive Attribution Asymmetry Bias, which is a difference in the attribution of motives for conflict made by one's own group (ingroup) and the other group (outgroup). The ingroup tends to attribute their own reasons for conflict to ingroup love (i.e., showing positivity toward the ingroup), and the outgroup's reasons to outgroup hate (i.e., hating or disliking outgroup). However, when these motives are examined from the outgroup's point of view, this same asymmetry is seen in motive attribution (Waytz et al., 2014). That is, the other group is also saying that conflict is occurring between groups because their group is showing positivity towards their group, but that they are not showing negativity toward our group (i.e., one's own group).

Waytz et al. (2014) designed their study to measure the motives of groups in intractable conflict: American Republicans and Democrats, and Israelis and Palestinians. First, they randomly assigned Republicans and Democrats to rate the motives of their Own party or the Other party for being in conflict; they rated motives related to Love for the ingroup (ingroup favouritism) or Hate for the outgroup (outgroup dislike). A 2 (Party Focus: Own/Other Group) x 2 [Motive: Love/Hate] mixed ANOVA revealed a significant interaction of party focus and motive ratings, $p < .0001$, $\eta_p^2 = .23$ (see Figure 1). Both parties considered their own party to be motivated more by love than hate, and the other party to be motivated more by hate than love. They replicated this pattern cross-culturally with both Israeli (study 2) and Palestinian (study 3) samples (Waytz et al., 2014). How threat may influence this Motive

Asymmetry Bias is important in potentially reducing conflict, including long-standing conflict between and among groups.

Figure 1

Visual Representation of Waytz et al. (2014) Motive Bias



Note: Study 1 - Motive Ratings of American Democrats and Republicans, in terms of love and hate, of their own party or the other party; significant interaction $p < .0001$, $\eta_p^2 = .23$

Considering the results of Waytz et al. (2014) study on the Motive Asymmetry Bias, and the relationship between threat and bias, we were interested in how or in what way perceived threat would relate to this Motive Asymmetry Bias for groups in conflict. By examining the association with threat, we will have a better understanding of this bias and ways to potentially reduce it. Intergroup threats may amplify different attribution biases, such as the Motive Bias (Stephan & Stephan, 2016), and it is important to consider how threat itself influences the bias. Moreover, because this bias includes the ratings of both ingroups

and outgroups, investigating it has the potential to significantly extend research on ingroup bias and outgroup derogation as mechanisms of ingroup bias. We designed a study to examine the relationship of perceived threat with the Motive Bias between groups in conflict – specifically American Republicans and Democrats. These political groups are currently entrenched in conflict that many say may be intractable, and were two of the groups investigated by Waytz et al. (2014).

In reviewing the literature, we identified two different hypotheses as to how perceived threat may be associated with the Motive Bias. The first, based on the Group Threat literature and Social Identity Theory (SIT), is a Group-Threat Bias. According to SIT, ingroup members are motivated to perceive the ingroup positively, and strive not only for differentiation from the outgroup, but positive distinctiveness for their ingroup (Brewer, 1999; Tajfel & Turner, 1979). When one's social group is in conflict with another group or experiencing social threat, a person may be more likely to associate with their social group, if it or aspects of it are perceived as positive, and they may seek to enhance their group through ingroup favouritism. A second way to maintain positive distinctiveness for one's group is to focus on negative aspects of the outgroup (Riek, Mania, & Gaertner, 2006). Therefore, individuals who perceive high threats may strive to make their own group seem more positive, and the outgroup seem more negative, in order to preserve that positive distinctiveness of their group.

Besides positive distinctiveness, further research on intergroup bias, ingroup love, and outgroup hate suggests an inclination towards ingroup love/favouritism rather than outgroup hate/harm in the expression on intergroup bias. Buttelmann and Böhm (2014) utilized a reward allocation experimental design with children aged 5-7 to investigate the developmental origins of ingroup love and outgroup hate. Based on their findings, they posit

that ingroup love is the first to develop, since ingroup love is more likely to be shown in reward allocation in younger children, and it was only older children who began showing outgroup hate in reward allocation. Bian et al. (2018) found similar results with gaze of infants on resource allocation to either an ingroup or outgroup. Halevy, Bornstein, and Sagiv (2008) utilized the Intergroup Prisoner's Dilemma (IPD) and Intergroup Prisoner's Dilemma – Maximizing Differences (IPD-MD) paradigms to investigate how communication influences behaviour. When the only option for ingroup gain was through competition, such as the IPD, participants were more likely to compete. However, when there was a possibility for relative ingroup gain without harm to the outgroup, such as with the IPD-MD, participants were more likely to act in a way which reflected ingroup favouritism without harm to the outgroup (Halevy, Bornstein, & Sagiv, 2008). Recent literature and research posit intergroup bias appears in 3 ways: Type 1, for the ingroup; Type 2, against the outgroup; Type 3, mixture of the two (Brewer, 2016). Many behaviours and bias are motivated primarily by ingroup positivity rather than outgroup antagonism, and this first Type underlies most of the treatment of the ingroup and outgroup (Brewer, 1999; 2016). Greenwald and Pettigrew (2014) reviewed different methodologies and discrimination, and found ingroup favouritism to be more likely than outgroup hostility in discrimination. Dang et al. (2020) replicated DeSteno et al. (2004) study on emotions' influence on perceptions of the ingroup and outgroup, finding evidence of ingroup love and little of outgroup harm.

While the above evidence supports a relationship between ingroup favouritism and threat, that is only part of the Group Threat Hypothesis, as another way to maintain positive distinctiveness for one's group is to focus on negative aspects of the outgroup (Riek, Mania, & Gaertner, 2006). Besides the evidence of threat related to ingroup love, there is also evidence that threat also is related to outgroup derogation. Aberson et al. (2020) found

evidence across three studies within the framework of ITT that more threat was related to more negative feelings towards the outgroup, and less positive feelings towards the outgroup. Across all studies they included measures addressing feelings [positive and negative], emotions [positive and negative], stereotypes, prejudice, and implicit associations related to the target outgroup. Regression analyses in each study supported the association of greater perceptions of threat with less favourable outgroup evaluations of samples of African Americans (study 1), Hispanics (study 2), and gay men (study 3). In their studies, Makashvili et al. (2018) regressed threat on a measure of prejudice and found that threat related to more prejudice against the outgroup. Wlodarczyk et al. (2014) noted that the best model of fit to explain prejudice included both elements of ingroup love and outgroup derogation – their model included prejudice mediating the relationship between threat and the response to the outgroup. This included both ingroup favouritism and a measurement of prosocial responses to the outgroup. And while ingroup favouritism is a common way in which ingroup bias appears, type 3 (a mixture of for the ingroup and against the outgroup) has enough merit in order to be mentioned (Brewer, 1999, 2016). With this mixed evidence, the Group Threat Hypothesis posits that threat will relate to the Motive Bias where increased threat, relates to increased bias. Individuals who perceive higher threat will both view their group's motives more positively, and the other group's motives more negatively.

A second hypothesis, based upon the clinical and counselling phobia literature, is a Negativity Bias in which information related to the threat or threatening situation induces a focus on negative aspects of the causes of conflict between the groups. Individuals who have phobias, or who are generally anxious, will often be more vigilant to threats (Mogg, Philippot, & Bradley, 2004). This may be due to a hypervigilance towards the source of the threat or the situation related to the threat (Bantin et al., 2016; Eysenck, 1992; Mogg, Philippot, &

Bradley, 2004; Mogg, Bradley, et al., 2004; Mogg, McNamara, et al., 2000) or a difficulty in disengaging from threats (Derryberry & Reed, 2002; Koster et al., 2004; Yiend & Mathews, 2001). Whether due to a hypervigilance towards threat or a difficulty disengaging from threat, individuals who are anxious or hold phobias are generally more vigilant to threats. An outgroup may function similarly if anticipated interaction with the outgroup is anxiety provoking or threatening, and the presence of an outgroup can induce attentional bias to threatening stimuli and possibly induce a general focus on negative information. Recent research into neural responses to threat indicates that threat detection is a relatively automatic process (based on the areas of the brain which are activated when considering threatening stimuli) (Lantos et al., 2020). Considering the automatic nature of neural responses to threat, a hypervigilance or difficulty in disengaging from threat could in some way facilitate this response. Therefore, individuals who perceive high threats may be more attentive to the threats, which may focus them on negative aspects of the outgroup's motives and negative aspects of their group's motives when making judgments about causes of the conflict between the groups. It follows that the motives of both the ingroup and outgroup may be perceived more negatively when perceived threat is higher.

In the research within this chapter, we sought to assess the nature of the relationship of perceived threat and the Motive Bias. Since this was a first investigation into the relationship between threat and the Motive Attribution Asymmetry Bias, we used a well-established theory and measure of perceived threat. In particular, we used perceived threats to the resources and symbolic values of one's social group that *Inter*group Threat Theory (ITT) argues as main sources of intergroup threat (Stephan, Ybarra, & Morrison, 2009; Stephan, Ybarra, & Morrison, 2015; Stephan & Stephan, 2016). We employed the twenty-four item, perceived Realistic and Symbolic Threat scale to measure threat (Stephan, Boniecki, et al.,

2002). Given that we are using the Motive Bias paradigm, we are also able to investigate participants' views of the own group and participants' views of the other group. To date, few studies have measured ingroup favouritism and outgroup derogation together and we sought to do so here.

Previous literature on intergroup relations and ingroup bias states ingroup bias can be assessed in different ways: for the ingroup (ingroup favouritism), against the outgroup (outgroup derogation or hostility), or a mixture of the two (Brewer, 1999; 2016). There are difficulties in experimentally separating these two types of bias. However, some recent research has attempted to separate these aspects of ingroup bias through the IPD-MD (Dang et al., 2020; Halevy, Bornstein, & Sagiv, 2008). With this design, ingroup bias is inferred from the allocation of points, resources, etc. to determine ingroup bias or outgroup derogation. One major difference from the IPD is that there is the possibility to allocate resources to the ingroup without directly harming or taking away from the outgroup (Halevy, Bornstein, & Sagiv, 2008), which attempts to address the issue of typical reward allocation matrices being unable to tease apart ingroup favouritism and outgroup derogation (Balliet et al., 2014).

Besides the IPD-MD, there has been some previous research examining ingroup favouritism and outgroup derogation. Some previous studies have examined ingroup favouritism (Dunne, 2018; Jin & Baillargeon, 2017) Others have examined outgroup derogation (Giannakakis & Fritsch, 2011 study 2; Mashuri & Zaduqisti, 2014) A few studies have examined both (Appiah et al., 2013; Halevy, Bornstein, & Sagiv, 2008; Henderson-King et al., 1997; Johnson et al., 2012; Meeus et al., 2009). However, even the cited research examining both ingroup favouritism and outgroup derogation does not separate the two. For example, Appiah et al. (2013) measured both ingroup favouritism and outgroup derogation,

but considered the presence of ingroup bias in general, rather than separating the two; Henderson-King et al. (1997) measured traits of the ingroup and outgroup but did not separate these two measures; Johnson et al. (2012) measured ingroup bias using a relative thermometer of attitudes towards the ingroup and outgroup, combining into one measure; Meeus et al. (2009) measured ingroup bias by subtracting outgroup affect from ingroup affect, with higher scores indicating more of a bias towards the ingroup. To date there is very little research differentiating intergroup bias being due to ingroup positivity versus outgroup derogation. The current research should be able to shed light on this question in relation to the Motive Bias because the motive bias is measured by observing reactions to both ingroup and outgroup.

2.3 Contribution of the Current Research

There are both short-term and long-term impacts of threat on different intrapersonal phenomena, including cognitions, emotions, and self-perceptions (Woodcock et al., 2012). There has been previous research on the long-term impacts of stereotype threats on behaviour/attitudes (Woodcock et al., 2012) and on the long-term impact of identity threats on belonging (Cook et al., 2012), but not on realistic and symbolic threats to groups. The current research utilizes both cross-sectional (Study 1) and longitudinal (Study 2) designs (with counterbalanced presentation of threat and bias measures to reduce the potential issue of order effects with bias and threat measures) to examine the relationships between both short- and long-term perceived threat and the Motive Bias. Moreover, the current research aims to extend the literature on the Motive Bias and fill the gap in the research on long-term influences of measured perceived threat on the Motive Asymmetry Bias.

2.4 Overview of the Current Research

The current research aims to investigate two aspects of how perceived threat may be associated with the Motive Asymmetry Bias seen with groups in conflict. One aspect is the pattern of the relationship between perceived threat and the motive bias (i.e., whether a negativity bias or group-threat effect is observed, and whether ingroup favouritism or outgroup derogation, or both are influenced by threat). A second aspect of the research set out to contrast whether threat assessed from the scale measure taps different motivations (Chapter 2) than does temporarily primed threat (Chapter 3 on manipulated threat).

2.5 Study 1

2.6 Methodology

2.6.1 Hypotheses

Hypothesis 1. Negativity Bias; based on the phobia literature. If there were a negativity bias, we would expect the rated motive preference of both the ingroup and outgroup to be lower when perceived threat is high than when perceived threat is low.

Hypothesis 2. Group Threat Bias; based on the Group Threat literature. If there were a group threat bias, we would expect the motive preference of the ingroup to be rated higher when perceived threat is higher. The motive preference of the outgroup would be rated lower when perceived threat is higher.

2.6.2 Participants

We recruited 665 Republicans and Democrats via Prolific.co, data collection December 2018, to participate in our study. We first examined participants' responses to two measures of political affiliation for any discrepancy. Any participants with missing data were removed, and data were cleaned prior to analysis by also removing participants' data which indicated a party misalignment. Since the Republican party is associated with more

conservative political views, and the Democratic party is associated with more liberal political views, participants' data that showed a party misalignment (e.g., identified as Republican and extremely liberal, or identified as Democrat and extremely conservative) were removed from the analyses. When we removed these participants' data, 635 participants' data remained for analysis; they were between 18 and 71 years old (M = 32.73, SD = 11.31) with 22.7% Conservative, 68.3% Liberal, 9.0% Moderate, and 54.0% were female participants, 46% were male participants.

2.6.3 Materials

Perceived Threat from the Other Party Scale. Perceived Threat was measured using the Perceived Threat from Other Party scale, which was adapted from Stephan, Boniecki, et al.'s (2002) 24-item perceived Symbolic and Realistic Threat measure. This measure has been used in numerous research studies to measure perceived threat (Aberson & Gaffney, 2008; Ljujic, Vedder, & Dekker, 2012; Ljujic, Vedder, Dekker, & van Geel, 2010; Mange et al., 2016; Riek, Mania, Gaertner, et al., 2010; Vedder et al., 2016). The scale consisted of twenty-four items that measured perceived threat based upon 12 symbolic threat items and 12 realistic threat items; all items were presented in a randomized order. The scale used a seven-point, vertical scale from (1) *Disagree Strongly* to (7) *Agree Strongly*. An example of the items included are "the other party holds too many positions of power and responsibility in this country", and "my party has very different values than the other party" (see Appendix A for full measure). Because the perceived realistic and symbolic subscales share a common theme of threats to the ingroup (Stephan, Boniecki, et al., 2002; Stephan, Ybarra, & Bachman, 1999) and were highly correlated (r = .68, p < .001, α = .89), we used all twenty-four items in a single index of perceived threat. Single indexes of perceived threat have been used in previous research (Schmid & Muldoon 2015; Tausch et al., 2007; Tip et al.,

2012; Verkuyten, 2009). After reverse-scoring items, scores were averaged and higher scored indicated more perceived threat from the other party (M = 5.04, SD = 0.81, α = .89).

Love Composite Score. We used the same three items as Waytz et al. (2014) for assessing positive motivations for being in conflict (i.e., empathy, compassion, kindness). For those in the own party condition, the questions were formatted such as "When your party engages in conflict, how much is your party motivated by empathy towards your political party?" For those in the other party condition, the questions were formatted such as "When the other party engages in conflict, how much is their party motivated by empathy towards their political party?" Participants made their ratings on a 7-point Likert scale from (1) *Not at all* to (7) *Very Much* (see Appendix B). Ratings were averaged to create a positivity or Love composite score (M = 4.69, SD = 1.66, α = .95).

Hate Composite Score. We used the dislike and hatred items that Waytz et al. (2014) had used, but we replaced their Indifference item with a Disdain item because they had found a reliability of only 0.59 with their composite of Dislike, Indifference, and Hatred items. They conducted their analyses with and without the Indifference item, which is more passive than dislike or hatred, and observed the same pattern and significance of results. Instead of using just a two-item measure, we added the Disdain item and kept the Dislike and Hatred items, which allowed us to retain the ability to do the analyses with just the two items if needed. For those in the own party condition, the questions were formatted such as "When your party engages in conflict, how much is your party motivated by hatred towards the other party?" For those in the other party condition, the questions were formatted such as "When the other party engages in conflict, how much is their party motivated by hatred towards your political party?" Participants made their ratings on a 7-point Likert scale from (1) *Not at all* to (7) *Very*

Much (see Appendix B). Ratings were averaged to create a negativity or Hate composite score ($M = 4.85$, $SD = 1.67$, $\alpha = .92$).

Motive Preference. In order to conduct our analyses with a continuous variable (i.e., measured threat), we calculated an overall motive preference score. Motive Preference was computed by subtracting the mean Hate composite scores from mean Love composite scores. A higher and a numerically positive Motive Preference Score would indicate more positive than negative motivations and a more negative score would indicate more negative than positive motivations.

Filler Task. Participants completed a filler task between the threat measure and bias measure to create a small separation between tasks. The four items ($M = 3.58$, $SD = 0.88$, $\alpha = .77$) were from the Need for Cognition questionnaire (Cacioppo et al., 1984) and were chosen because they have not correlated with the threat measure in past research and did not correlate significantly in this study ($r = .01$, $p = .762$). An example item included the following, "I would prefer complex to simple problems." Participants made their ratings on a 5-point, vertical Likert scale from (1) *Extremely Uncharacteristic* to (5) *Extremely Characteristic* of me (see Appendix C). Higher scores indicated more need for cognition.

Political Affiliation. Participants completed two questions related to political affiliation that had been used by Waytz et al. (2014). One question asked them about the party to which they most closely identified with, Republican or Democrat (i.e., Political Alignment). All participants should have considered themselves a member of or aligned with one of these parties because we had selected only participants who had stated they aligned themselves with a party in their the Prolific.co recruitment survey. The second question asked the extent to which participants considered themselves as Liberal or Conservative (i.e.,

Political Ideology). They made their rating on a 7-point Likert scale ranging from (1) *Extremely Liberal* to (7) *Extremely Conservative* (*M* = 2.96, *SD* = 1.85; see Appendix D).

2.6.4 Procedure

Participants were recruited from an online platform, Prolific.co, if they had not completed any similar studies. In order to control for any order effects, we counterbalanced the presentation of the Party Focus and Threat measures so that each appeared first for fifty percent of the participants. Random assignment and counterbalancing produced four possible orders: (1) Threat first, then Own Party focus, (2) Threat first, then Other Party focus, (3) Own Party focus, then Threat second, or (4) Other Party focus, then Threat second. Random assignment was accomplished by using a procedure from previous online research (Stewart et al., 2019) in which participants selected a letter that appeared at the top of a list of letters. (Each list was randomly ordered for each participant; thus, participants were not self-selecting into an order. The letter chosen had been randomly ordered by the computer and participants did not know what each letter represented. Moreover, participants believed they were doing this to check that the system was recording their responses correctly).

In the Own Party focus condition, participants answered the question of "When your party engages in conflict, how much is your party motivated by empathy [compassion, kindness] towards your political party" for each of the three adjectives (empathy, compassion, kindness). They also answered the question of "How much is your party motivated by dislike [disdain, hatred] towards the other party" for the three negative adjectives (dislike, disdain, hatred). In the Other Party focus condition, participants answered the following questions of "When the other party engages in conflict, how much is their party motivated by empathy [compassion, kindness] towards their political party" and "When the other party engages in conflict, how much is their party motivated by dislike [disdain, hatred] towards your political

party?" Again, the order of presentation of the Party Focus task and the Threat measure was counterbalanced. In between the Threat measure and Party Focus task, participants completed the need for cognition filler task.

After completing the main measures, participants completed a number of demographic questions and math filler questions. They first were asked "In order to demonstrate that you are a real person, please complete some of these mathematics problems (50 x 7 = _____; 13 + 24 = _____). They were then asked the additional filler questions of what they thought the purpose of the study was, asked about their gender, ethnicity, age, and in what country they currently resided (see Appendix E). Next, they were asked, "What political party do you feel more closely aligned with?" and then "Please rate your personal political orientation" on the Likert scale. Finally, participants were asked if they made any mistakes in previous answers and were then debriefed and thanked for their time.

2.7 Results

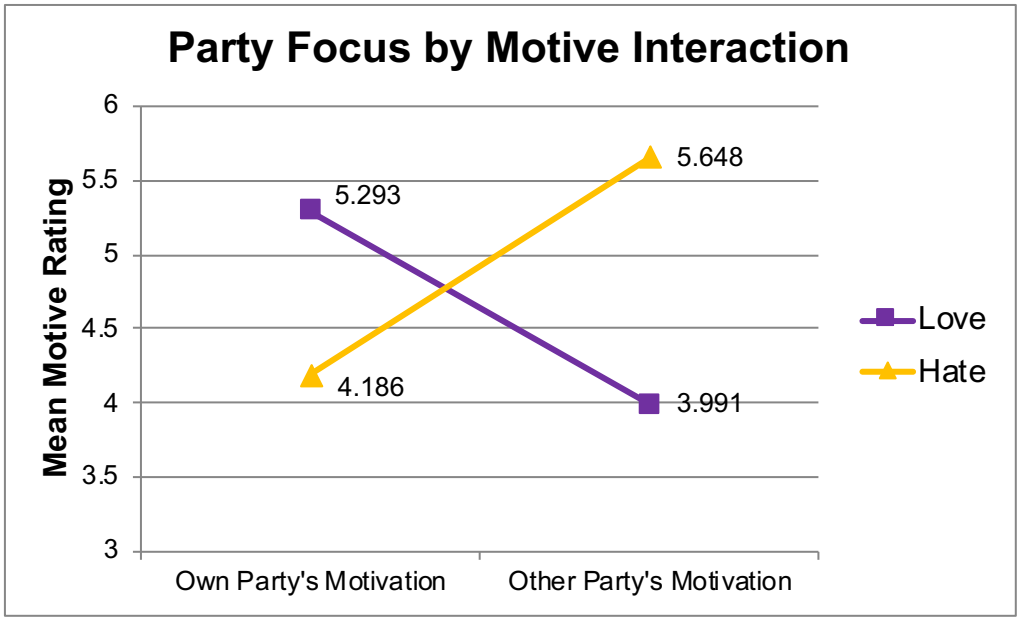
2.7.1 Motive Bias Preliminary Analysis

Before testing the main hypotheses, we tested for order effects by conducting a regression with effects-coded Party Focus, effects-coded Order (of Threat and Party Focus), standardized Threat, and all interaction terms in the model for the Motive Preference dependent measure (i.e., love/kindness ratings minus hate/dislike ratings). We observed a non-significant Party x zThreat x Order interaction, $R^2 = .004$, $p = .133$, and non-significant Party x Order, $R^2 = .001$, $p = .347$ and zThreat x Order interactions, $R^2 = .001$, $p = .482$; thus, order of presentation did not significantly change motive ratings. As was observed in Waytz et al. (2014), we also observed a non-significant Party x zThreat x zPolitical Orientation interaction, $R^2 < .001$, $p = .822$. Thus, political ideology did not qualify the results. The preliminary analysis tested whether we replicated the Motive Asymmetry Bias findings from

Waytz et al. (2014). A 2 (Party Focus: Own/Other) x 2 [Motive Ratings: Love/Hate] mixed model ANOVA with Motive as the within-participants factor, revealed a significant interaction, $F(1,633) = 219.997$, $p < .001$, $\eta_p^2 = .258$ (see Figure 2). This finding replicates the Motive Asymmetry Bias observed by Waytz et al. (2014). The data show that when considering the ingroup's motives for being in conflict, they are more positive (love) than the motives attributed to the outgroup.

Figure 2

Visual Representation of the Motive Bias, Study 1



Note: Significant Party Focus (Own, Other Party rated) by Motive (Love, Hate rated) interaction from mixed model ANOVA, $p < .001$, $\eta_p^2 = .258$

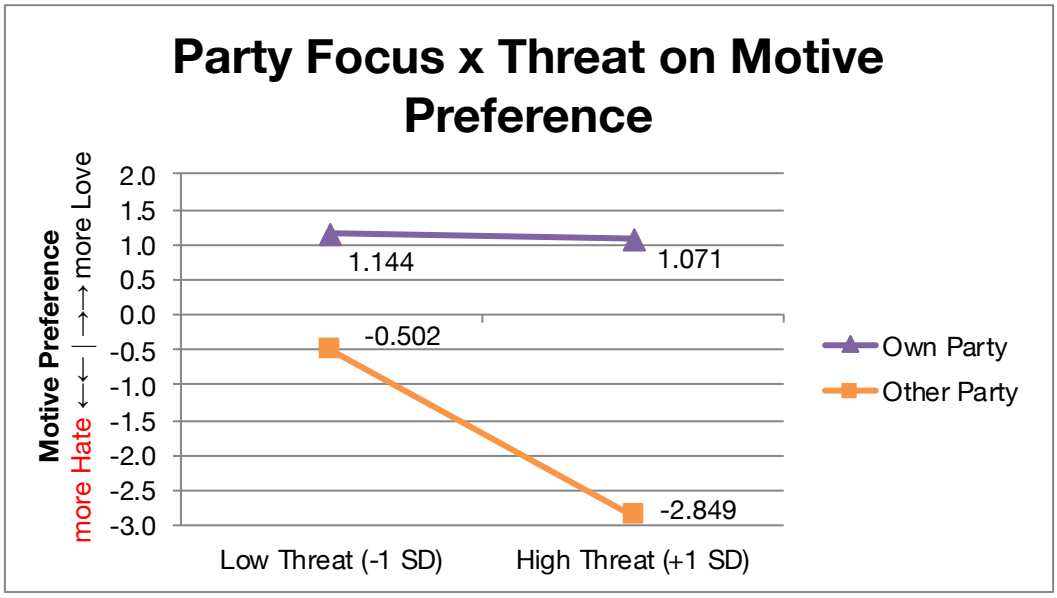
2.7.2 Party Focus x Threat on Motive Preference

To test whether Motive Preference was different in relation to Threat level or Party Focus, we effects coded Party Focus (Own = 1, Other = -1) and standardized the continuous

measure of Threat (High = +1 SD, Low = -1 SD). We entered effects-coded Party Focus, standardized Threat, and the interaction into a regression equation with Motive Preference (MP Index = Love minus Hate scores) as the outcome. The analysis revealed a significant main effect of standardized Threat, $R^2 = .069$, $\beta = -.222$, $t = -6.863$, $p < .001$, and of Party Focus, $R^2 = .285$, $\beta = .511$, $t = 15.855$, $p < .001$, on Motive Preference. These main effects were qualified by a significant Party Focus x Threat interaction, $R^2 = .062$, $\beta = .208$, $t = 6.445$, $p < .001$ (see Figure 3). Results did not support either a negativity bias or a group threat effect. The Threat simple slope for the Own Party condition was not significant ($R^2 < .001$, $\beta = -.017$, $p = .754$), but the Threat slope was significant for the Other Party condition was ($R^2 = .214$, $\beta = -.463$, $p < .001$). For the negativity bias to be supported, the Own Party slope would need to have been significant and also lower under high threat than low threat. For a group threat effect to be supported, the Own Party slope would have had to be significant, but higher under high threat.

Figure 3

Party Focus by Standardized Threat Interaction on Motive Preference, Study 1



Note: Motive Preference measured as Love minus Hate scores

In order to test whether Political Orientation interacted with the main variables, we entered Effects-coded Party Focus, standardised Political Orientation, standardised Threat, and their interactions into a regression on Motive Preference. We observed a non-significant Party x Threat x Political Orientation interaction, $R^2 < .001$, $\beta = -0.19$, $t = -0.225$, $p = .822$. Thus, Political Orientation did not qualify the main results of the Motive Bias. The Party x Threat interaction remained significant, $R^2 = .039$, $\beta = .549$, $t = 5.971$, $p < .001$, as did the main effect of Threat, $R^2 = .043$, $\beta = -0.610$, $t = -6.628$, $p < .001$, and main effect of Party Focus, $R^2 = .261$, $\beta = 1.385$, $t = 15.971$, $p < .001$. Participants' Political Orientation did not qualify any of the results we found on the relationship between Threat and Motive Preference.

While the counterbalanced study design accounted for any order effects of presentation of the Threat measure and the Motive Bias measure, we were interested in exploring the findings further as they did not support either of our hypotheses. Post-hoc

explorative testing did not clarify the results as the findings were non-significant, but the pattern of responses may be interesting to view in consideration of future research. Results of post-hoc explorative analyses by presentation order are in Appendix F.

2.8 Discussion

Regression analyses supported neither Hypothesis 1, the Negativity Bias hypothesis, nor Hypothesis 2, the Group Threat Effect, when considering perceived threat and the Motive Bias in groups in conflict. The simple slopes for Own Party Focus were all non-significant, while the slopes for Other Party Focus were significant, which shows more negativity in the Other Party condition for participants experiencing high threat compared to low threat. We would expect the Own Party focus slopes to also be significant and negative to support Hypothesis 1, or significant and positive to support Hypothesis 2. It is possible that we may be able to more clearly observe these effects if we added a longitudinal component to the research to observe threat and bias over time. Study 2 added a longitudinal aspect to investigate this idea and Study 2 also served as a replication attempt of the current findings.

Previous research on intergroup bias suggests the influence of social identity and is often explored within the Social Identity Theory framework (Everett et al., 2015; Gruber et al., 2019). Findings indicate that the amount one identifies with a group can influence intergroup bias (Appiah et al., 2013; Gruber et al., 2019), that social identity is related to perceived threats (Stephan & Stephan, 2016), and threat and identity could both influence intergroup bias (Giannakakis & Fritsche, 2011). With these considerations, we included a measure of social identification in Study 2 as an a priori variable to investigate in relation to threat.

Study 2 used a longitudinal design to test some of these ideas. In particular, we wanted to conduct a replication of the Threat and Motive Bias effects and extend Study 1 by adding a

longitudinal component and include a measure of social identification after the main measures.

2.9 Study 2

2.9.1 Methodology

2.9.2 Hypotheses

Similar to Study 1, we had two different hypotheses as how measured perceived threat might be related to the Motive Bias in addition to the new hypothesis based upon the results of Study 1. In addition, we included Social Identity as an a priori variable to examine in relation to perceived threat.

Hypothesis 1. Negativity Bias: This hypothesis is based upon the phobia literature. If we were to observe a Negativity Bias, we would expect other party ratings to be more negative with higher perceived threat, and own party ratings to also be more negative with higher perceived threat.

Hypothesis 2. Group Threat Bias: This hypothesis is based upon the Group Threat literature. If we were to observe a Group Threat Bias, we would expect other party ratings to be more negative with higher perceived threat, and own party ratings to be more positive with higher perceived threat.

Hypothesis 3. Based upon the findings of Study 1, the relationship of Threat and the Motive Bias may be one in which threat's relationship to the motives is observed only in the Other Party condition. In this case, more negativity is observed toward the Other Party for those experiencing high threat compared to those experiencing lower threat.

Hypothesis 4. Based on previous literature on social identification and threat, we included a measure of social identification to test whether we would observe different relationships on the motive bias and threat for those individuals who had high social

identification with their party compared to low social identification. We would expect there to be stronger relationships to threat for those with high identification.

2.9.3 Participants

We recruited a total of 668 participants via Prolific.co, data collection May 2019 – August 2019. We once again analysed the data for discrepancy between the two political affiliation measures. We removed participants that showed a party misalignment (e.g., identified as a Republican and extremely liberal or identified as a Democrat and extremely conservative), and any participants with missing data. This left 641 participants' data for analysis. Overall, the number of participants were roughly equal for political affiliation (277 Republicans, 364 Democrats), and for the two main conditions (320 Own Party focus, 321 Other Party focus). Participants were between 18 and 74 years old (M = 34.79, SD = 18.45) and 51.0% were female, 49.0% were male. We anticipated retaining approximately 60-70% of the sample at Time 2 (i.e., three months later), for a total of 400 participants.

2.9.4 Design

The first part of Study 2 used the same design as Study 1 in which we counterbalanced the presentation of the Party Focus and Threat measures so that each appeared first for fifty percent of the participants. Once again, random assignment and counterbalancing produced four possible orders: (1) Threat first, then Own Party focus; (2) Threat first, then Other Party focus; (3) Own Party focus, then Threat second; (4) Other Party focus, then Threat second.

There was a three-month gap between time one and time two of study 2. For time two, we again counterbalanced the presentation of the Party Focus and Threat measures. Random assignment and counterbalancing produced four possible orders: (1) Threat first, Own Party focus; (2) Threat first, Other Party focus; (3) Own Party focus, Threat second; (4) Other Party focus, Threat second. Order was also counterbalanced between time one and time two. To aid

in the cover story and avoid suspicion, participants were ensured to be in the same Party Focus condition (either Own or Other) between times one and two. For example, participants in (3) Own Party focus, Threat second at time one were randomly assigned to (3) Own Party focus, threat second or (1) Threat first, Own Party focus at time two. Random assignment and counterbalancing between and within time one and time two produced eight possible orders.

Study 2 also used the same measures of Perceived Threat, Motive Preference, Need for Cognition, and Political affiliation as Study 1. The main difference was the inclusion of the longitudinal component of the study and the inclusion of a Social Identification measure at the very end of times one and two of the study.

2.9.5 Materials

Perceived Threat from the Other Party, Motive Preference, the Need for Cognition, Filler task, and Political affiliation measures were the same as those used in Study 1.

Social Identification. To measure social identification with the ingroup, we used four items that have been used extensively in previous studies to measure social identity (Doosje et al., 1995; Haslam et al., 2009; Jetten, Spears, & Manstead, 1996; Jetten, Spears, & Manstead, 2001; Mashuri & Zaduqisti, 2014; Turner & Crisp, 2010). The measure used a nine-point, vertical Likert scale from (0) *Not at all* to (8) *Very much* (see Appendix G). Example items included, "I perceive myself as being similar to other members of my political party" and "Being part of my political party is an important part of who I am." The four items were averaged, and higher scores indicated more social identification with one's political group (M = 5.68, SD = 1.80, α = .91).

2.9.6 Procedure

Participants were recruited from the Prolific.co platform if they had not participated in our previous studies and had indicated that they were either a Republican or a Democrat in

their Prolific.co information. In order to decrease attrition, participants had to indicate they would be willing to complete part two at a later time before beginning the study. After giving informed consent, participants were randomly assigned to four, counterbalanced orders: (1) Threat first, then Own Party focus, (2) Threat first, then Other Party focus, (3) Own Party focus, then Threat second, or (4) Other Party focus, then Threat second. Random assignment was accomplished by using a procedure from Study 1 and from previous online research (Stewart et al., 2019). In between the Threat and Motive measures, participants completed a four-item, filler task (Need for Cognition). After the main measures, participants completed the same filler questions from Study 1 that asked about mathematics problems, purpose of the study, gender, ethnicity, age, and in what country they reside. They next completed the same political affiliation questions used in Study 1, completed two additional need for cognition items, and then completed the Social Identification measure. Finally, they were asked if they had made any errors in their response, then were debriefed and thanked for their time.

Three months after completing time one, participants were sent a reminder for time two of the study and directed to the Prolific.co platform. After again giving informed consent, participants were randomly assigned to four, counterbalanced orders based on Party Focus condition at part one: (1) Threat first, then Own Party focus, (2) Threat first, then Other Party focus, (3) Own Party focus, then Threat second, or (4) Other Party focus, then Threat second. Random assignment was accomplished by using a procedure from Study 1 and previous online research (Stewart et al., 2019). All materials and items were the same as those from time one.

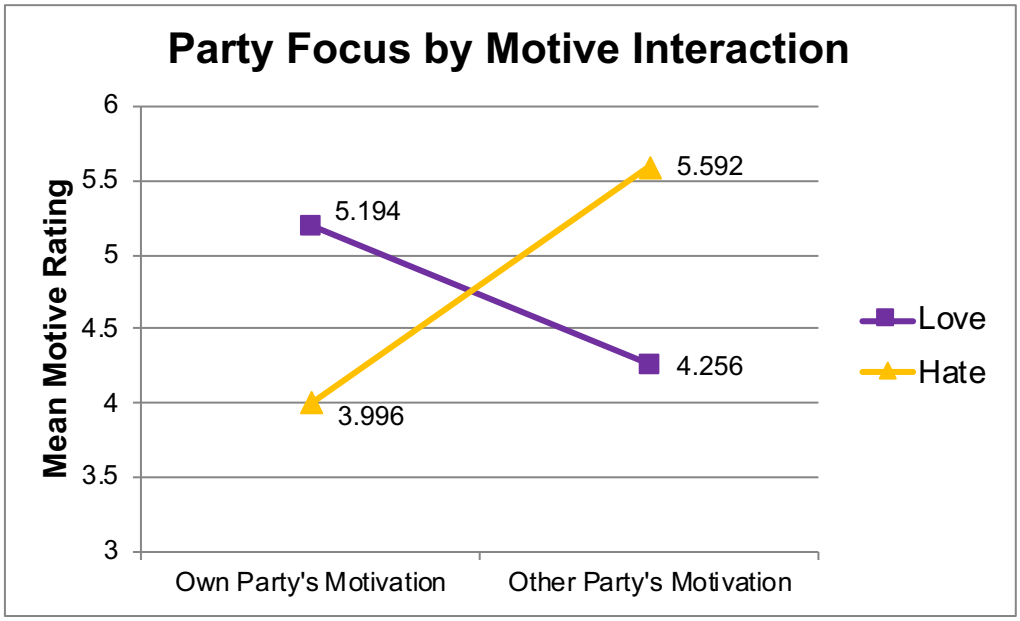
2.10 Results

2.10.1 Motive Bias at Time 1

Prior to the main analyses, we again tested for order effects by conducting a regression with effects-coded Party Focus, effects-coded Order (i.e., Order of Threat and Party Focus variables), standardised Threat, and all interaction terms. Again, we found a non-significant Party x zThreat x Order interaction, $p = .766$, $R^2 < .001$, and non-significant Party x Order, $p = .500$, $R^2 = .001$ and Threat x Order interactions, $p = .475$, $R^2 = .001$. These analyses indicated that order of presentation did not significantly change participant's responses. Data at Time 1 were then analysed to test whether we replicated the Motive Bias findings from Waytz et al. (2014) and from Study 1. A 2 (Party Focus: Own/Other) x 2 [Motive Ratings: Love/Hate] mixed model ANOVA, with Motive as the within-participants factor, revealed a significant interaction, $F(1,639) = 227.896$, $p < .001$, $\eta_p^2 = .263$ (see Figure 4). The data show the Motive Asymmetry Bias. When rating their own group's motives for being in conflict with the other group, participants are more positive (love) than when participants rate the motives of the other group.

Figure 4

Visual Representation of the Motive Bias, Study 2 Time 1



Note: Party Focus (Own, Other) by Motive (Love, Hate) mixed model ANOVA with motive rating as within-participants factor

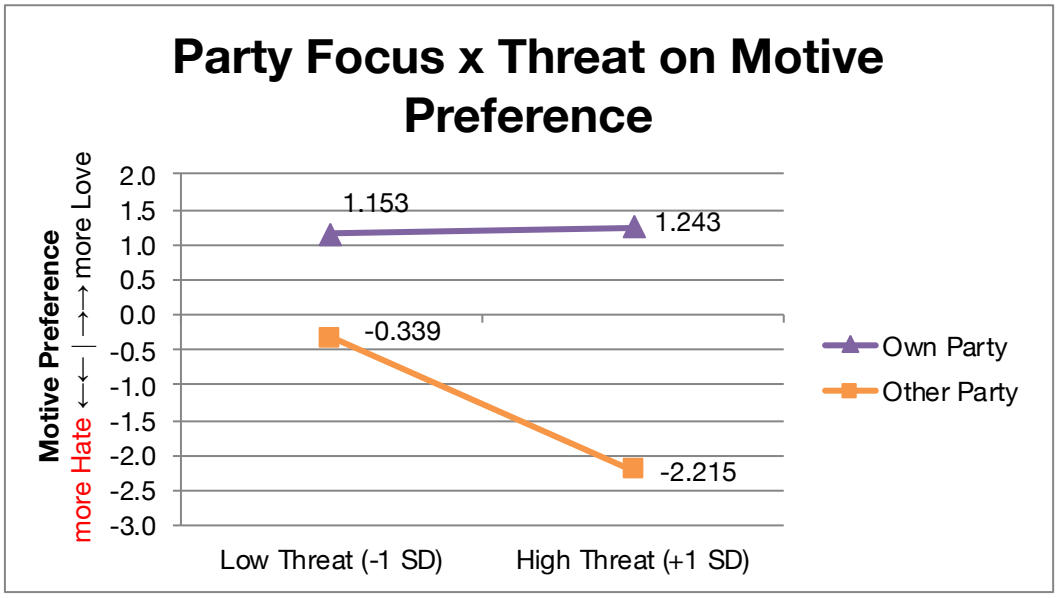
2.10.2 Party Focus x Threat on Motive Preference at Time 1

To test the relationship of Party Focus and Threat level to the Motive Bias, we entered effects-coded Party Focus (Own = 1, Other = -1), standardised Threat (High = +1 SD, Low = -1 SD), and the interaction into a regression on Motive Preference (Index = Love minus Hate scores). We observed a significant main effect of standardized Threat, $R^2 = .045$, $\beta = -.178$, $t = -5.472$, $p < .001$, and of Party Focus, $R^2 = .272$, $\beta = .501$, $t = 15.427$, $p < .001$, on Motive Preference. A significant Party Focus x Threat interaction qualified these main effects, $R^2 = .054$, $\beta = .196$, $t = 6.025$, $p < .001$ (see Figure 5). The Threat simple slope for the Own Party condition was not significant ($R^2 < .001$, $\beta = .208$, $p = .672$), but the Threat slope was significant for the Other Party condition ($R^2 = .152$, $\beta = -.390$, $p < .001$). Based upon these

results, we found support for neither a group threat effect nor a negativity bias. It is interesting to note that the data consistently show a relationship in which people high in Perceived Threat rate the Other group more negatively than do those low in Perceived Threat; there are more negative motives ascribed to the outgroup for being in conflict.

Figure 5

Party Focus by Standardized Threat Interaction on Motive Preference, Study 2, Time 1



In order to test whether Political Orientation interacted with the main variables, we entered effects-coded Party Focus, standardised Political Orientation, standardized Threat, and their interactions into a regression on Motive Preference. We observed a non-significant Party x Threat x Political Orientation interaction, $R^2 = .002$, $\beta = -.037$, $t = -1.082$, $p = .280$. Thus, political orientation did not qualify the main results. The Party x Threat interaction remained significant, $R^2 = .054$, $\beta = .200$, $t = 5.996$, $p < .001$, as did the Threat main effect, $R^2 = 045$. $\beta = -.182$, $t = -5.463$, $p < .001$, and the Party Focus main effect $R^2 = .277$. $\beta = .502$, $t = 15.577$, $p < .001$.

As was done in Study 1, we conducted post-hoc exploratory analyses of Motive Preference scores by Threat, split by whether Threat was presented before the Motive Bias measure or after. We were interested in visualizing these differences despite being non-significant. Results of these exploratory analyses can be found in Appendix F.

2.10.3 Analyses of Data from Time 2

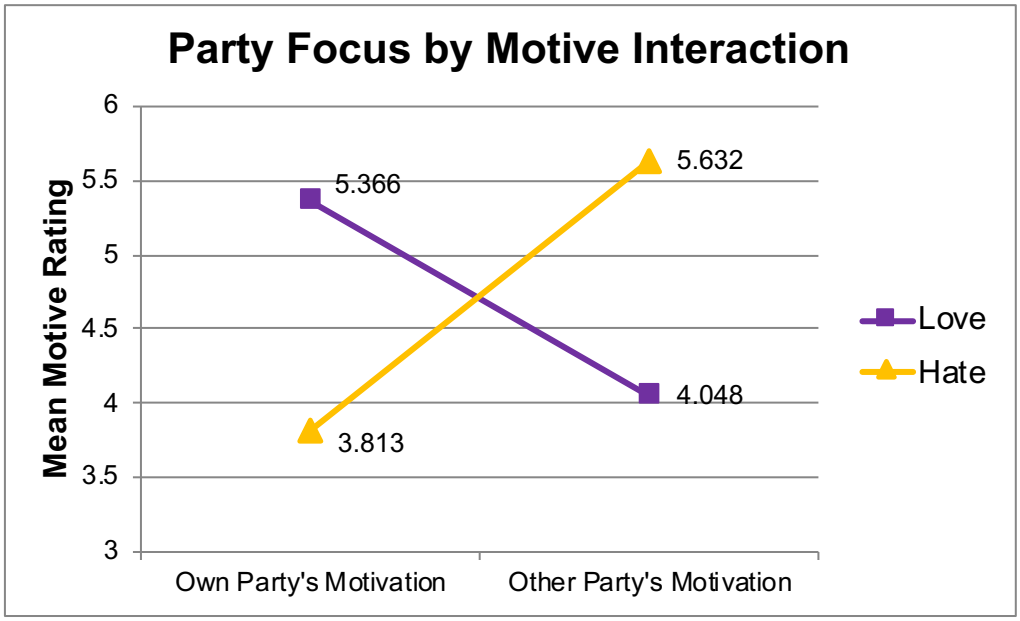
Considering data from Time 2, we conducted the same analyses as those at Time 1 to investigate the Motive Bias and the relationship of Threat to Motive Preference. A total of 508 participants completed the study at time two approximately three months after time one, with roughly the same number of participants in each condition. We examined participants' data for any discrepancy in responses to the two political affiliation measures. After removing participants with misaligned data, 500 participants' data remained for analysis at Time 2. Number of participants were roughly equal for political affiliation (207 Republicans, 293 Democrats), and between the two main conditions (246 own party focus, 254 other party focus).

2.10.4 Motive Bias Time 2

We conducted a regression with effects-coded Party Focus, effects-coded Order (ie., Order of Threat and Party Focus), standardized Threat, and all interaction terms. Again, we found a non-significant Party x Threat x Order interaction, $p = .615$, $R^2 = .001$, and non-significant Party x Order, $p = .883$, $R^2 < .001$ and Threat x Order interactions, $p = .289$, $R^2 = .002$. These analyses indicated that order of presentation did not significantly influence responses. A 2 (Party Focus: Own/Other) x 2 [Motive ratings: Love/Hate] mixed model ANOVA with Motive as the within-participants factor showed a significant interaction, $F(1,498) = 239.033$, $p < 0.001$, $\eta_p^2 = .324$ (see Figure 6), which replicated both our previous findings and Waytz et al. (2014).

Figure 6

Visual Representation of the Motive Bias, Study 2, Time 2



Note: Party Focus (Own, Other) by Motive rating (Love, Hate) mixed model ANOVA with Motive rating as within-subjects factor

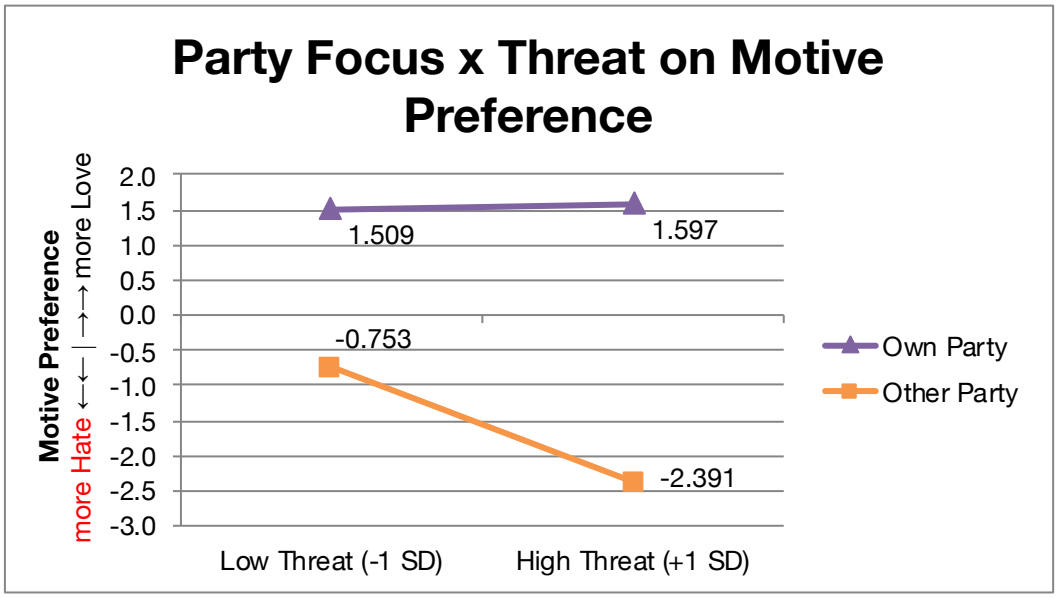
2.10.5 Party Focus x Threat on Motive Preference Time 2

To test the relationship of Party Focus and Threat level to the Motive Bias, we entered effects-coded Party Focus (Own = 1, Other = -1), standardised Threat (High = +1 SD, Low = -1 SD), and the interaction into a regression on Motive Preference. We discovered a significant main effect of standardised Threat, $R^2 = .03$, $\beta = -.141$, $t = -3.917$, $p < .001$ and of Party Focus, $R^2 = .336$, $\beta = .567$, $t = 15.858$, $p < .001$, on Motive Preference. These effects were qualified by a significant Party x Threat interaction, $R^2 = .037$, $\beta = .156$, $t = 4.359$, $p < .001$. The Threat simple slope for the Own Party condition was not significant ($R^2 < .001$, $\beta = .021$, $p = .743$), but the Threat slope was significant for the Other Party condition ($R^2 = .114$, $\beta = -.337$, $p < .001$). These results indicated neither a group threat bias nor a negativity bias

(see Figure 7). Data consistently indicate a negativity bias when considering the motives of the other group when in conflict – in a high threat condition, there are more negative motives ascribed to the outgroup for being in conflict.

Figure 7

Party Focus by Standardized Threat Interaction on Motive Preference. Study 2, Time 2



As in Study 1 and Part 1 of Study 2, we entered Effects-coded Party Focus, standardised Political Orientation, standardised Threat, and their interactions into a regression on Motive Preference to test whether Political Orientation interacted with the main variables. We observed a non-significant Party x Threat x Political Orientation interaction, $R^2 < .001$, $\beta = -0.18$, $t = -0.184$, $p = .854$. Thus, Political Orientation did not qualify the main results of the Motive Bias. The Party x Threat interaction remained significant, $R^2 = .025$, $\beta = .444$, $t = 4.307$, $p < .001$, as did the main effect of Threat, $R^2 = .017$, $\beta = -0.345$, $t = -3.344$, $p < .01$, and main effect of Party Focus, $R^2 = .324$, $\beta = 1.571$, $t = 16.045$, $p < .001$. Participants' Political

Orientation did not qualify any of the results we found on the relationship between Threat, Party Focus, and Motive Preference.

As was done in Study 1, we conducted post-hoc exploratory analyses of Motive Preference scores by Threat, split by whether Threat was presented before the Motive Bias measure or after. We were interested in visualizing these differences despite being non-significant. Results of these exploratory analyses can be found in Appendix F.

2.10.6 Analyses with Social Identification

We had included social identification with one's political party at the very end of the study to allow for testing whether there was a Party Focus x Threat x Social Identification interaction that would further clarify effects. We entered effects-coded Party Focus (Own = 1, Other = -1), standardised Threat (High = +1 SD, Low = -1 SD), standardised Social Identification (High = +1 SD, Low = -1 SD), and all interactions into the Regression on Motive Preference at Time 1 (641 participants). We observed a significant main effect of Threat, $R^2 = .065$, $\beta = -.229$, $t = -6.638$, $p < .001$, and of Party Focus, $R^2 = .261$, $\beta = .501$, $t = 14.945$, $p < .001$. These main effects were qualified by the significant Party Focus x Threat interaction, $R^2 = .028$, $\beta = .148$, $t = 4.286$, $p < .001$ that we have observed consistently. This interaction, however, was not qualified by a three-way party focus, threat, and social identification interaction. The Party Focus x Threat x Social Identification interaction was not significant, $R^2 < .001$, $\beta = .006$, $t = .180$, $p = .857$; thus, Social Identification did not explain or clarify our results and we still observed a significant Party Focus x Threat interaction. In a second set of analyses, we used the Time 1 Social Identification and entered it into a Time 2 model (500 participants). We entered Time 2 effects-coded Party Focus, Time 2 standardised Threat, Time 1 standardised Social Identification, and all interaction terms into a Regression on Time 2 Motive Preference. The T2 Party Focus x T2 Threat x T1 Social Identification

interaction was not significant, $R^2 = .004$, $\beta = -.056$, $t = -1.447$, $p = .148$. Time 1 Social Identification did not interact with Time 2 Party Focus and Threat to predict motive preference. This adds further support that Social Identification did not clarify the results of this study and did not influence results over the three-month period. Hypothesis 4 was not supported.

2.11 Time 1 and Time 2

There was a 74.8% completion rate for Time 1 and Time 2. This is above what is generally considered an acceptable retention rate for longitudinal studies, 50-70% (Cotter et al., 2005; Yeterian et al., 2012; Young et al., 2006). When designing the Time 2 portion of the study, we ensured that the presentation of threat and motive measures were also counterbalanced at Time 2. It was also designed so that participants were in the same Party Focus condition between Time 1 and Time 2. This procedure was used to aid in the cover story and help make sure participants did not become suspicious of the true nature of the study.

The longitudinal design of this study serves to add an element of time to our examination of Perceived Threat and the Motive Bias. With the cross-sectional design of the study we were able to gain information on the relationship between Perceived Threat and the Motive Bias in general. What the longitudinal element adds is more information on chronic Perceived Threat and how it may relate to the Motive Bias. This helps gain more understanding of whether, and possibly in what way, chronic Perceived Threat relates to Bias.

2.11.1 Research Questions

We were interested in the influence of measured perceived threat on the motive bias over time. Due to the unknown nature of how Threat may relate with the Motive Bias over time, we focused on general research questions as to what the relationship could be:

1) Does Perceived threat at Time 1 significantly related to Perceived Threat at Time 2?
2) Does Time 1 Threat interact with Time 2 Party Focus to predict Time 2 Motive Preference?

2.11.2 Time 1 Threat and Time 2 Threat

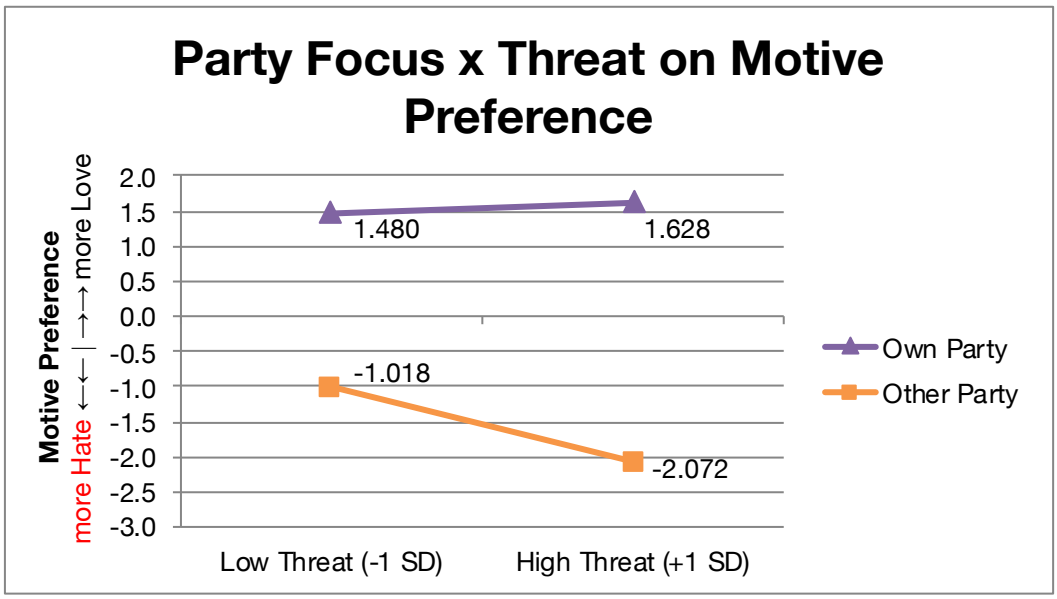
To answer the question of whether there is a relationship between Perceived Threat at Time 1 and Perceived Threat at Time 2, a 2 (Perceived Threat at Time 1: High/Low) x 2(Party Focus: Own/Other) regression was conducted on Perceived Threat at Time 2. There was a significant relationship of measured Threat at Time 1 on measured Threat at Time 2, $R^2 = .479$, $\beta = .693$, $t = 21.346$, $p < .001$.

2.11.3 Time 1 Threat x Time 2 Party Focus on Time 2 Motive Preference

We examined measured Threat at Time 1 and its relationship to Motive Preference at Time 2, and tested whether Time 1 Threat interacted with Time 2 Party Focus to predict Time 2 Motive Preference. We entered effects-coded Party Focus from Time 2, standardised Threat from Time 1, and its interaction into a regression on Motive Preference from Time 2. We found a small effect of Time 1 Threat, $R^2 = .01$, $\beta = -.082$, $t = -2.52$, $p = .025$ and a significant Time 2 Party Focus x Time 1 Threat interaction, $R^2 = .02$, $\beta = .109$, $t = 2.985$, $p = .003$. The Threat simple slope for the Own Party condition was not significant ($R^2 = .002$, $\beta = .042$, $p = .504$), but the Threat slope was significant for the Other Party condition ($R^2 = .042$, $\beta = -.206$, $p < .001$). Again, the interaction pattern was in between a negativity bias pattern and a group threat pattern (see Figure 8).

Figure 8

Party Focus Measured at Time 2 by Standardized Threat Measured at Time 1 Interaction on Time 2 Motive Preference



2.12 Discussion

Study 2 examined the relationship between Perceived Threat and the Motive Bias over time. Regression results from Time 1 and Time 2 failed to support either the Negativity Bias hypothesis or the Group Threat hypothesis. The ratings for Own Party motivations were not significantly different for those participants who rated themselves as experiencing high threat and those who rated experiencing low threat from the other party outgroup. A more negative Own Party rating for those experiencing higher perceived threat compared to lower threat would have supported the Negativity Bias (hypothesis 1), while a more positive Own Party rating for those experiencing higher perceived threat compared to lower threat would have supported the Group-Threat effect (hypothesis 2). The results, however, supported the findings of Study 1 and Hypothesis 3; there was a non-significant relationship between Perceived Threat and the Motive Bias for the Own Party ratings, while for Other Party

ratings, those participants who rated experiencing more Perceived Threat had more negative ratings of the Other Party than those who experienced less Perceived Threat. This pattern was observed consistently in the regression analyses at both Time 1 and Time 2.

We were interested in examining the relationship between Perceived Threat and the Motive Bias over time. Due to the relationship between threat and intergroup bias, we considered only Threat presented before Motive Bias at Time 1 in order to avoid any possible influence of bias on the threat measure. If the Time 1 Threat x Time 2 Party Focus interaction is similar to the Time 2 Threat x Time 2 Party Focus interaction, then we have a good idea of the stability of this effect over time.

Examining the relationship of Threat from Time 1 with Motive Preference at time 2 again supported neither Hypothesis 1 (Negativity Bias) nor Hypothesis 2 (Group Threat Effect Bias). Perceived Threat at Time 1 was significantly related to Motive Preference at time 2 (R^2 = .01, β = -.082, t = -2.52, p = .025), which indicates a small relationship between threat and the motive bias over time without considering the moderating effect of Party Focus. This significant relationship was qualified by a significant interaction of Time 1 Threat and Time 2 Party Focus (R^2 = .02, β = .109, t = 2.985, p = .003) and the pattern replicated Study 1 and Time 1 Study 2 results in which only the Threat slope in the Other Party condition was significant (R^2 = .03, p < .001). While ingroup bias is maintained and was not different in relation to threat, the ratings of the outgroup were related to more threat over time.

2.13 General Discussion

In the current research, we examined whether Perceived Symbolic and Resource Threats were related to the Motive Attribution Asymmetry Bias (i.e., the Motive Bias). In their original research, Waytz et al. (2014) found that groups in conflict make similar attributions about their own ingroup's motives for conflict (i.e., their own group causes

conflict by being positive toward their group more than hating the outgroup), but rate the outgroup's motives as being more about hating their group than doing positive things for the outgroup. Neither group acknowledges that the other group may be causing conflict because the ingroup is doing positive things for its own group rather than hating the other group. This new effect was named the Motive Attribution Asymmetry Bias, or the Motive Bias. Our research was the first to investigate how perceived intergroup threat was related to this Motive Bias, and in particular, the specific ingroup bias and outgroup negativity components. Prior research has established the general relationship between threat and bias in which more perceived threat tends to be related to more intergroup bias (Riek, Mania, & Gaertner, 2006; Rios et al., 2018). However, little research has been done on how perceived threat relates to ingroup favouritism as opposed to outgroup derogation simultaneously, each of which can contribute separately to intergroup bias or negative outgroup attitudes (Appiah et al., 2013; Seate & Mastro, 2016). The current research sought to test the relationships of ingroup positivity and outgroup negativity with threat in a paradigm on the Motive Attribution Asymmetry Bias (or Motive Bias).

Within our two studies, we observed a Party Focus (Own vs Other group) x Threat (High vs Low) interaction on Motive Preference (MP Index = Love ratings minus Hate ratings). For the Own group rating condition, the Threat simple slope was not significant; thus, perceived threat was not related to how one rates one's own group on motivations for causing conflict. However, ingroup bias (i.e., more positivity to the ingroup compared to the outgroup) was still larger for participants who experienced higher perceived threat compared to low threat because ratings of the Other group were more negative in relation to high threat. This effect is observed in the Other group rating condition where the Threat simple slope was significant and showed more negative ratings of the Other group for those experiencing

higher perceived threat in comparison to those who rated themselves as experiencing less threat. This pattern of results did not support either our negativity bias hypothesis (i.e., high threat being related to more negative ratings for one's Own group and for the Other group) nor the group threat hypothesis (i.e., high threat being related to more positivity toward the Own group and more negativity toward the Other group). In the current research, ingroup bias may be accentuated when information about social membership is made salient and this effect appears to be due to more perceived threat being related to a more negative view of the outgroup.

The results of these two studies demonstrate that symbolic and resource threats may not be related to the view of the ingroup. The threat measure used in these studies was adapted from Stephan, Boniecki, et al. (2002) to measure perceived symbolic and resource threats from the other party, and these perceived threat measures have been used extensively in the literature. Based upon the literature on intergroup bias, we had developed two hypotheses to predict the relationship of threats (i.e., Negativity Bias and the Group Threat effect). Each proposed a different way in which threat may be related to the Motive Asymmetry Bias, with the main difference being Own Party ratings for those who perceived high and low threat. Our data did not support these hypotheses, and at this time, we do not fully understand the mechanism by which measured perceived threat is related to ratings of the outgroup, but not ratings of the ingroup. Due to counterbalancing in both studies, and the similarity in results despite counterbalancing, our results indicate order effects are unlikely to be an explanation for this effect. Since our measure of the Motive Bias included both *inter*group (other group rating) and *intra*group (own group rating) elements we can consider these. It may be that for individuals who perceive high threat from the outgroup (i.e., other party), their focus is shifted towards the outgroup when making judgments. This shift in focus

may then cause them to consider more the outgroup's motives than their own, leading to more negative ratings of the other group with little change in ratings of their own group. Future research will need to be conducted to examine the mechanisms for this novel effect. Besides examining the mechanism of this effect, it may also be useful for future research to explore a different measure of perceived threat.

The current research also investigated the relationship of threat and bias over time. The Motive Attribution Asymmetry Bias consists of at least two elements – an ingroup view and an outgroup view. Bias is consistently higher when participants perceive more threat from the other group, but only in relation to perception of the outgroup's motives. Within Study 2, we investigated the effect of measured threat over a three-month period. Time 1 of Study 2 replicated the Party Focus x Threat interaction observed in Study 1. For those rating Own Party motives, the Threat simple slope was not significant. For those rating the Other Party motives, the Threat slope was significant and showed that higher perceived threat was related to more negative Motive Preference ratings. This interaction effect was replicated at Time 2. Moreover, Threat measured at Time 1 interacted with Party Focus at Time 2 to predict Motive Preference at Time 2. Again, the same interaction pattern was revealed. Since this study examined threat over time and there was still an interaction between threat and ratings of the other party, it indicates that the measure of threat tapped into a chronic level of threat felt towards the outgroup. This longitudinal finding adds considerable confidence to the cross-sectional results from Study 1 and Time 1 of Study 2.

Experiencing chronic perceived threat from other groups could increase the possibility of perceiving bias in others in the future, and possibly increase intergroup bias itself (Cook et al., 2012). The current research did not support either the negativity bias or group threat hypothesis in regard to the Motive Bias, nor did it show that threat was related to Own group

ratings. It, however, did support threat being related to more ingroup bias via more negative ratings of the Other group as opposed to more positive ratings of one's Own group. While previous studies have investigated the long-term impacts of stereotype threats and identity threats (Cook et al., 2012; Woodcock et al., 2012), the current research was the first to investigate perceived realistic and symbolic threats with this bias and to investigate them over time. Additionally, the research by Cook et al. (2012) and by Woodcock et al. (2012) focused on ingroup identity threat, but not ratings of outgroups, therefore, our research adds to the longitudinal literature by investigating both ingroup and outgroup ratings in addition to resource and symbolic threats.

Our research provides a good initial test of the relationship of perceived symbolic and resource threat with the Motive Attribution Asymmetry Bias and it found a consistent pattern of results in both studies. However, there are some limitations to the research. Given that it was an initial test of these relationships, we used a well-established measure of perceived threat, which limited Study 1 to observing correlational relationships for Threat and Motive Bias. Study 2 replicated these correlational findings and added substantially to the research by including a longitudinal component. The longitudinal methodology allowed us to show that Perceived Threat at Time 1 did interact with Time 2 Party Focus to predict results of Motive Preference at Time 2. This demonstrates that chronic threat could be a potential causal factor in the Motive Bias. After these initial studies, future research could experimentally manipulate perceived threat in order to isolate the causal effects of threat in a controlled experiment. Such experimental manipulations may be challenging because manipulations of symbolic and realistic threats have not been demonstrated to be accomplished together and have not been demonstrated to be reliable and robust (Rios et al., 2018). There are a few studies that have manipulated either symbolic threat or realistic threat individually, but there

have been few studies and many have not been replicated to demonstrate reliability and robustness. We examine experimental manipulations of threat in Chapter 3.

Within our research, we used Intergroup Threat Theory (ITT) to guide our investigation of the influence of threat. Given that we focused on ITT and given that Study 1 was a first investigation into how Threat related to the Motive Asymmetry Bias, we did not include variables related to social identification, which could moderate the effects of threat. Within Study 2, however, we did include a measure of social identification to investigate whether high social identification led to a larger relationship of Threat to the Motive Bias. When Social Identification was entered into the regression model, we observed the significant main effects of Threat, Party Focus, and significant Threat x Party Focus interaction as we did without it in the model. However, these effects were not qualified by a three-way interaction including Social Identification at either Time 1 or at Time 2. The amount participants identified with their group did not interact significantly to influence their perception of their, or the other, party's motives. This indicates that within this group and perceived threat, the amount participants identified with their group did not relate to perception of motives. More interestingly, the amount of perceived threat did interact with party focus relating to the Motive Bias regardless of the amount participants identified with their group. Neither influencing the own party's motives for being in conflict, nor the view of the other party's motives for being in conflict.

Previous research indicates that threat influences and is related to intergroup bias; we extended this to examine the relationship between perceived threat and the Motive Asymmetry Bias. In our research, symbolic and realistic threats were associated with the way the ingroup sees the outgroup (i.e., more negative Other Group ratings as perceived threat increases), but not in how the ingroup sees itself (i.e., similar Own Group ratings regardless of

perceived threat). The ingroup's motives were consistently rated more positively than the outgroup's, yet this difference was more pronounced as perceived threat increased. This is due to the outgroup's motives being rated more negatively as perceived threat increases. Due to the counterbalanced longitudinal design, we were able to determine the presentation order of threat and bias measures did not influence the Motive Bias or the relationship of threat to the bias. However, the manner in which this happens is unclear, and was not clarified by examining a measure of social identification, nor by examining the different presentation orders. What is clear, is that the Motive Bias is influenced by perceived threat, and that the more perceived threat, the greater the ingroup bias. Greater understanding of this relationship between threat and bias can help potentially improve intergroup relations because it suggests different ways to intervene to reduce this bias.

This research provides further evidence for the Motive Bias, and that threat measured at one point in time (study 1) and threat measured over time (study 2) relate similarly to this bias. Since own party ratings were non-significant across studies, while other party ratings were, this gives some greater understanding to this relationship. These studies provide good preliminary research into the Motive Bias, how it is related to threat, and informs future focus for interventions to improve intergroup relations and decrease ingroup bias.

CHAPTER 3: MANIPULATED THREAT AND THE MOTIVE ASYMMETRY BIAS

3.1 Background on Manipulated Threat

The previous chapter detailed literature on threat and its influence on intergroup bias and then reviewed research on the relationship between measured perceived threat and the Motive Asymmetry Bias. There are a few different theories about how threat influences people as well as different ways to categorize threat (e.g., threats to one's group, existential threats of death, abstract versus concrete threats, etc). The research within this chapter will use Intergroup Threat Theory as a framework, same as Chapter 2, because it most closely aligns with our interests in intergroup perceptions and intergroup relationships. The most recent instantiation of Intergroup Threat Theory posits that there are two main types of intergroup threat, realistic (resource) threats and symbolic threats, which occur at both the individual and the group level (Rios et al., 2018; Stephan, Boniecki, et al., 2002; Stephan & Stephan, 2016). Examining the influence of, and relationship between, measured threat and the motive asymmetry bias provided us with useful information for intergroup relations and provided us with some evidence that contradicted our original hypotheses gleaned from the literature on threat. Chapter 3 will continue these investigations to determine whether temporarily activated threat (i.e., manipulated threat) will produced similar contradictory results or whether it will produce results that support one of the two a priori hypotheses from Chapter 2. Moreover, these investigations will be a potentially important step in understanding and improving intergroup relationships

3.1.1 Background on Realistic and Symbolic Threat

Chapter 1 provided an overview of Realistic and Symbolic threat, which we will review briefly here given that they form the basis of Intergroup Threat Theory. Realistic threats are ones related to concerns about the existence of the ingroup, including threats to

resources, physical well-being, or political and economic power. Many definitions are based in Realistic Group Conflict Theory (Sherif, 1966), and are often framed as a tangible loss. Realistic threats to resources or power are different from physical threats or threats to one's survival, though a physical threat may be both realistic and bring to mind one's own mortality. As such, measurements of realistic threat may include threats to individual or group power or to resources (job security, economic security, food/shelter, etc). For example, Rosenstein (2008) measured perceived threat through participants' answers to questions on the 1994 General Social Survey about perceived impact of labor market integration (job security at the individual and group level). Our research in the previous chapter measured realistic threat using a modified version of Stephan, Boniecki, et al.'s (2002) twenty-four item perceived realistic and symbolic threat scale. The subset of items included questions related to economics, job security, power, political power, and legal rights.

In experimental manipulations, realistic threats may be framed as a tangible loss of resources such as a monetary loss to the group or individual. Some examples include studies utilizing the Intergroup Prisoner's Dilemma (IPD), and variations such as the Intergroup Prisoner's Dilemma – Maximizing Differences (IPD-MD) paradigm or the Asymmetric Intergroup Prisoners Dilemma (AIPD) paradigm (Halevy, Bornstein, & Sagiv, 2008 – IPD, IPD-MD; Halevy, Weisel, & Bornstein, 2012 – IPD, IPD-MD; Weisel & Zultan, 2016 – IPD, AIPD). Besides monetary loss, some manipulations of realistic threat may focus on outgroup stereotypes relating to danger (e.g., safety and well-being [Gilead & Liberman, 2014]), competition (e.g., salaries and job opportunities [Morrison et al., 2009], competition for power and resources [Morrison & Ybarra, 2008]); competitiveness of the outgroup [Cohrs & Asbrock, 2009]), or a combination of the two (an increase in both crime and unemployment due to immigration [Duriez et al., 2012]) (Rios et al., 2018). The realistic threat manipulation

used by Morrison and Ybarra (2008) would fall into a category of outgroup stereotypes in competition (e.g., “Asian Americans are gradually taking over the United States”). In the current research, we focus on manipulations of threats to resources and political/economic power because the threat measurement in Chapter 2 focused on these types of realistic threats.

Symbolic threats are more intangible and relate to differences in values, morals, beliefs, norms, and attitudes. Thus, measuring symbolic threats is less straightforward and involves more perceptions of outgroup difference. The research in the previous chapter measured symbolic threat using a modified version of Stephan, Boniecki, et al. (2002) twenty-four item realistic and symbolic threat scale. The symbolic threat items focus on group values, rights, family values, traditions, morality, and respect between groups. Some attempts to manipulate this perception of “otherness” include manipulations that attempt to indicate or highlight that the other group is inferior or different in regard to culture, morals, and/or values (Rios et al., 2018). Symbolic threats focus on the inherent difference or “otherness” of the outgroup, which can be seen as threatening and an imposition of values (Morrison & Ybarra, 2009; Rios et al., 2018). The symbolic threat manipulation used by Morrison and Ybarra (2008) focuses on the difference in values of political parties, specifically Republicans and Democrats. Although realistic and symbolic threats can be examined separately, they share a common theme of threats to the ingroup and tend to be highly correlated. Therefore, examining the two together can provide a clearer picture (Rios et al., 2018; Schmid & Muldoon, 2015; Stephan, Ybarra, & Morrison, 2009, 2015; Tausch et al., 2007; Tip et al., 2012, Verkuyten, 2009). As collapsing the measures of realistic and symbolic threats has been done before, viewing both provides a clearer picture, and we were interested in perceived threat overall, the measures of symbolic and realistic threats were collapsed into one measure

of perceived threat for all analyses. The current research focuses on both realistic and symbolic perceived threat from the outgroup.

While there are different frameworks that examine specific types of threats and influences on the individual or group, there are a few reasons why we chose not to use these theoretical perspectives for our research and manipulations. Terror Management Theory (TMT) investigates mortality threats and focuses on reminding an individual of one's inevitable death. Because individuals tend to want to leave a positive impact behind after they die, they often see their cultural worldview as something that will survive after death and want it to be positive. When their mortality is made salient within a manipulation, the individual is more likely to consider what will be left behind after death and more likely to endorse or adhere to their worldview (Burke et al., 2013). Given that most intergroup interactions do not involve threats to one's mortality, we did not include this threat type in our investigations. Social Identity Theory (SIT) is another framework in which threat is investigated and it focuses on identity threats. One of the basic tenets of SIT is that one's identity is related to self-esteem and an individual wants to see themselves in a positive light (Tajfel & Turner, 1979). Given that self-esteem is influenced by personal identity and one's group identity, people tend to be motivated to see their groups in a positive light as well. Any threat to the positivity of this group identity can influence one to either cling to positive aspects of the group or to reject the group. Rejecting a group is, in essence, losing a part of one's identity, so people tend to be more likely to protect the positivity of that group over rejection of the group. Given that SIT focuses more on identity threat and that we were more interested in intergroup perceptions, we chose not to use SIT as the major focus of the research. Intergroup Threat Theory (ITT) investigates realistic and symbolic threats at the individual and group level, their antecedents, and their impact on prejudice. Because ITT

focuses on perceptions threats to oneself and one's groups by other groups, we believed this was a theory most closely tied to investigating intergroup perceptions and relationships. Moreover, ITT has spurred some research on manipulating threat and we discuss these manipulations later in this chapter.

Intergroup Threat Theory (ITT) was the framework on which we based our research. We examine perceived realistic and symbolic threats at the individual and group level, collapsing both into a single manipulation of threat. Because ITT posits that threat can lead to prejudice, we manipulated perceived realistic and symbolic threats and examined their influence on intergroup bias which may be considered prejudice towards the ingroup and against the outgroup (Stephan & Stephan, 2016). In particular, we focused on the Motive Asymmetry Bias that we had investigated in Chapter 2. While our research does not focus on identity threats or how group identification relates to threat, ingroup bias, or their relationship, both Intergroup Threat Theory and Social Identity Theory inform one of the possible explanations of how threat influences bias (threat to one's ingroup and group-threat). The results of the studies in Chapter 2 supported neither the Group Threat hypothesis based upon ITT/SIT literature, nor the Negativity Bias hypothesis based upon the phobia literature in regard to how measured threat relates to the Motive Bias. Manipulated threat, however, may influence the Motive Bias in one of these two ways. Thus, the research in this chapter examines methods for manipulating realistic and symbolic threat.

3.1.2 Threat Manipulations

While there has been some research on manipulating realistic and symbolic threat, it is not very extensive, though it is recent. Overall, there have been different attempts at manipulating perceived threat in specific groups. This includes research that utilizes mortality threats, realistic threats only, symbolic threats only, and other perceived threats. When

deciding upon a threat manipulation, we reviewed many different types of manipulations from a variety of theoretical approaches. These manipulations include mortality threats within Terror Management Theory perspective (Greenstein et al., 2016; Haas, 2016; Haas & Cunningham, 2014, Experiment 2 Cohen's d = .434), threats from characteristics of different groups (Bromgard & Stephan, 2006; Mange et al., 2016; Morrison & Ybarra, 2008; Morrison et al., 2009), newspaper editorials discussing threats (Morrison & Ybarra, 2009; Zhu et al., 2015), reinforcement of positive or negative outcomes for children (Muris et al., 2008), and perceived anxiety and threat for a potentially painful task [perceived threat of physical harm/pain] (Corley et al., 2016). See Appendix H for an overview of the different threat manipulations and their effect sizes. The main goal of the review was to identify successful manipulations with good effect sizes to use as a template for our manipulation of perceived realistic and symbolic threat from outgroups.

Unfortunately, there has not been much research on manipulating realistic and symbolic threat, nor has there been much success in manipulating these threats in regard to the small to medium effect sizes usually observed, and there has been some concern on the artificiality of the manipulations (Rios et al., 2018). Previous perceived-threat manipulations include editorial manipulations (Morrison & Ybarrra, 2009; Seate & Mastro, 2016), questionnaire scale manipulations (Morrison & Ybarra, 2008), and also quasi-experimental manipulations using coinciding threatening external events (e.g., London terror attacks, Abrams et al., 2017; economic fluctuations, Diaz et al., 2011; 9/11 terror attacks in the US, Hitlan et al., 2007). Considering the influence that threat has on intergroup bias, we may improve intergroup relationships if we can understand the influence and can alter the perception of threat. We review some of the more successful manipulations next.

Rios et al. (2018) provides an overview of different threat manipulations and recent work that specifically manipulated perceived realistic and symbolic threat. In the next few paragraphs, we provide a brief overview of the studies testing the two manipulations from Morrison and Ybarra (2008; 2009) upon which we based our threat manipulations; Table 1 provides a list of the major analyses for the relevant studies.

Table 1

Overview of Threat Manipulations as Basis for Later Manipulations

Author	Threat Manipulation	Type of Threat	N	Significance	Effect Size
Morrison & Ybarra (2008)	Study 2: "Opinion survey" with different items in the experimental and control groups, which correspond to an increase in perceived realistic-threat from Asian Americans for Non-Asian Americans as the manipulated IV SDO was the DV. Perceived Threat was the manipulation check (i.e., Do Asian Americans pose a threat to other American racial/ethinic groups?).	Realistic vs Control	51	Significant effect of Realistic Threat on manipulation check of Perceived Threat, p = .01 Non-significant main effect of Realistic Threat on SDO, *ps* > .19 Significant Threat x Racial Identification Identification Interaction on SDO, p = .03 Simple Slope of Threat	*Cohen's* d = 0.761 *Statistics not reported* *Estimated* d = 0.613 *Estimated* d = 0.741
	Study 3: "Opinion survey" with different items in the experimental and control groups, which correspond to an increase in perceived realistic threat from "techies" – a non-racial related group on University campus. SDO was the DV. Perceived Threat was the manipulation check.	Realistic vs Control	47	Significant effect of Realistic Threat on manipulation check of Perceived Threat, p < .001 Non-significant main effect of Realistic Threat Significant interaction of Threat and Identification with Major, p = .03	*Cohen's* d = 1.20 *Statistics not reported* *Estimated* d = 0.659

Author	Threat Manipulation	Type of Threat	N	Significance	Effect Size
Morrison & Ybarra (2009)	Study 1: Newspaper editorials stating positive outcome for outgroup, and negative for in-group, with Democrats as the outgroup and Republicans as the ingroup. Threat (symbolic vs control) and Social Identification with the Ingroup as the IVs. Social Dominance Orientation (SDO) as the DV.	Symbolic vs Control	50	Non-significant main effect of Threat on SDO Significant Threat x Identification Interaction on SDO, $p < .05$	*Statistics not reported* *Estimated Cohen's* $d = 0.597$
	Study 2: Newspaper editorials with Republicans as the outgroup; Threat (symbolic vs control) and Social Identification with the Ingroup as the IVs. SDO as the DV.	Symbolic vs Control	32	Non-significant main effect on SDO Significant Threat x Identification Interaction on SDO, $p < .05$	*Statistics not reported* *Estimated* $d = 0.798$
	Pre-test: Newspaper editorial referencing relative ingroup and outgroup political parties in the US. Pre-test of threat manipulation on Symbolic Threat	Symbolic vs Control	49 (pre-test)	*Marginal effect of threat manipulation on Symbolic Threat,* $p < 0.07$	*Estimated Cohen's* $d = 0.453$ $\eta_p^2 = 0.048$

Author	Threat Manipulation	Type of Threat	N	Significance	Effect Size
	Study 3: Newspaper editorial referencing relative ingroup and outgroup political parties in the US.	Symbolic vs Control	89	Non-significant main effect on SDO	*Statistics not reported*

Morrison and Ybarra (2008) were interested in the influence of perceived realistic threat and group identification on Social Dominance Orientation (SDO). Study 2 examined manipulated perceived threat from Asian Americans in a sample of non-Asian Americans. They had participants complete a five-item "opinion survey" and indicate how much they endorsed each statement on a 7-point Likert scale of (1) *Strongly Disagree* to (7) *Strongly Agree*. Participants in the realistic threat condition responded to statements taken from the Negative Attitudes towards Asians scale, which had been found to correlate with perceived threat from Asian Americans. Participants in the neutral condition responded to five negative, but non-threatening, stereotypes about Asian Americans., such as "Asian Americans are bad drivers" (Morrison & Ybarra, 2008, p. 160). Manipulation checks indicated that this manipulation was successful in inducing realistic threat with participants in the realistic threat condition indicating a greater degree of perceived threat than participants in the neutral condition, $t(48) = 2.67$, $p = .01$, *Cohen's d* = 0.761. Study 3 was a conceptual replication of the findings from study 2. They examined manipulated perceived threat from science majors ("techies") at an American University in a sample of humanities majors ("fuzzies"). They had participants complete a similar "opinion survey" to study 2, but with "techies" as the target outgroup instead of Asian Americans. Participants in the realistic threat condition responded to statements such as "Generally, companies prefer to hire techies over fuzzies when given the choice" (Morrison & Ybarra, 2008, p. 161). Participants in the neutral condition

responded to statements such as “Generally, techies are physically unattractive” (Morrison & Ybarra, 2008, p. 161). Manipulation checks indicated that this manipulation was also successful in inducing realistic threat, $t(45) = 4.01$, $p < .001$, *Cohen's d* = 1.20. As this manipulation was successful in inducing perceived realistic threat in two different populations, we were interested in utilizing this manipulation as a template for a conceptual replication with immigrants as the target outgroup.

Morrison and Ybarra (2009) explored manipulated symbolic threat and group identification on SDO in a sample of Republicans (study 1), Democrats (study 2), and both (study 3). In all three studies they utilized a similar symbolic threat manipulation. This symbolic threat manipulation was a fictitious newspaper editorial that was said to have been written by a member of the ingroup, e.g., the Republican participants read a fictitious article said to have been written by a Republican. In studies 1 and 2, the high symbolic threat condition described the loss of their party’s candidate in the most recent presidential election and expressed fear of changes the other party would make such as “try and drive their extreme positions through against the will of slightly less than the majority of American people’’ (Morrison & Ybarra, 2009, p. 1043). The low symbolic threat condition also described the loss of their party’s candidate in the election, and expressed disappointment about the outcome instead of fear. In both studies, threat did not significantly affect SDO. However, the interactions between threat condition and group identification were significant, indicating some difference in the conditions, yet this threat manipulation was not checked for effectiveness in eliciting perceived realistic threat within either Studies 1 or 2. However, Study 3 rectified this by including a pre-test to examine whether the threat manipulation actually did induce more threat. The editorial manipulation was similar, with the high threat indicating that the political party needed to protect their values and beliefs more than ever.

The low threat condition indicated more peaceful coexistence and mutual gains of both Republicans and Democrats. In the pre-test, the editorial manipulation was marginally successful in inducing more threat, $n = 49$, $p < .07$, $\eta_p^2 = .048$ (estimated *Cohen's d* = 0.453). Again, we were interested in using this manipulation as a template for manipulating perceived threat from Republicans or Democrats.

Based on the theoretical framework of the ITT and our interest in perceived symbolic and realistic threats from outgroups, we chose the newspaper editorials and opinion survey threat manipulations as a basis for our manipulations.

3.1.3 Contribution of Current Research

Stephan and Stephan (2016) note that the automatic and sometimes negative reactions to perceived threat may have served an evolutionary purpose to protect one's group from outgroups that posed real dangers to survival. However, in modern times, these strong negative responses to perceived threat may lead to issues with intergroup relations, especially if these reactions become non-conscious or automatized and the outgroup does not pose an actual threat, which is often the case (Stephan & Stephan, 2016). If we can successfully manipulate perceived threat and understand how it influences intergroup bias, in this case the Motive Asymmetry Bias, then we can continue to improve intergroup relations where groups are more likely to come into contact with one another.

Threats may amplify ingroup and outgroup cognitive biases, which would include perceptions of motives in the Motive Asymmetry Bias (Stephan & Stephan, 2016). An important point noted in many theoretical models of threat and bias/prejudice, is that the relationship between threat and bias is cyclical or bi-directional. Perceived threat not only leads to bias, but bias can increase perceptions of threat (Stephan & Stephan, 2016; Stephan, Ybarra, & Morrison, 2009; Stephan & Renfro, 2002). If we focus on threat and its influence

on bias and prejudice, we can potentially disrupt the cycle to improve intergroup relationships. However, the first step is to understand the relationship between the two, which was explored in the previous chapter on measuring threat. The research in the current chapter extends the research to explore the influence that temporarily activated threat has on the Motive Asymmetry Bias. As in Chapter 2, the Motive Bias measurement provides a unique, additional opportunity to observe these effects for perceptions of the outgroup and perceptions of the ingroup, which are rarely investigated together.

This chapter outlines three different theoretical threat manipulations for perceived symbolic and realistic threat, which are conceptual replications of previous published threat manipulations. These perceived threats are most often studied in intergroup relations and are ones that are very likely to be encountered in day-to-day life (Stephan & Stephan, 2016). All studies in this chapter were conducted on a sample of American Republicans and Democrats because they are an example of groups in conflict and groups for whom the conflict currently seems intractable. If a way can be found to manipulate threat effectively, and observe how it influences the motive bias, it may be beneficial in improving intergroup relations by informing different ways to intervene.

3.1.4 Overview of the Current Research

The current research aims to examine different experimental manipulations of perceived threat and extend that research to investigate the influence of manipulated threat on the Motive Asymmetry Bias. Experiment 1 is an editorial manipulation similar to the one used by Morrison and Ybarra (2009). Experiments 2a-b are a stereotype scale manipulation based on Morrison and Ybarra (2008), with immigrants as the target outgroup. Experiments 3a-b are replications of the editorial manipulation of Experiment 1, with the addition of a reactance measure as an a priori variable to explore in relation to the results of Republicans

and Democrats. Experiment 4 is a threat scale manipulation with the use of Stephan, Ybarra, & Bachman (1999) fifteen-item threat from immigrants scale as the high threat condition and an altered neutral form of the scale as the low threat condition; this manipulation is based upon the precedent of other threat scale manipulations such as Morrison and Ybarra (2008).

The final threat manipulation from Experiment 4 was successful with the subset of Republican participants, so we designed a study to examine the influence of manipulated perceived threat on the Motive Asymmetry Bias with American Republicans. Experiments 5a-b test the final threat scale manipulation on Motive Preference with a sample of American Republicans.

Manipulating threat can be a potentially difficult or sensitive topic for participants, so ethical approval was obtained for all studies through the University of Birmingham, and considerations put in place for participants. The threat manipulations were designed to focus on realistic and symbolic threats, such as those related to jobs or values instead of more overtly sensitive threats such as mortality threats or those to physical safety. Alongside these measures, participants were also required to provide informed consent before participating in each study, fully debriefed after completion of the study, and provided contact details of the researchers and contacts in case of distress.

3.1.5 Overview of the Current Chapter

This theoretical chapter on temporarily activated or manipulated threat adds to the literature on different threat manipulations and how they influence intergroup bias. The previous chapter explored the relationship between measured threat and the Motive Asymmetry Bias. In Chapter 2, the results were mixed, but it was clear that the ingroup was viewed as more positively motivated than the outgroup for groups in conflict. The current chapter extends this line of research by manipulating perceived threat and examining the

influence of perceived threat on the Motive Asymmetry Bias. Part one outlines the steps undertaken to develop a viable threat manipulation, which is secondary to the main purpose of this thesis, yet adds to the literature on manipulated threat. Part two continues with the main exploration of manipulated threat and its influence on the Motive Bias.

Part 1: Threat Manipulation Development

3.2 Experiment 1: Editorial Threat Manipulation

Based on previous threat research, participants should indicate a higher perception of threat in the high versus low threat conditions using the editorial threat manipulation from previous research. We tested an editorial threat manipulation, similar to one used by Morrison and Ybarra (2009). Previous studies indicated this type of threat manipulation was successful in inducing different levels of threat in participants (Morrison & Ybarra, 2009; Zhu et al., 2015).

3.2.1 Participants and Design

We recruited 71 Republicans and Democrats from Prolific.co, in April 2018, which is an online participant recruitment site that directed them to our study and through which they were paid a monetary compensation for participation. A priori power analysis based on the effects sizes reported in Morrison and Ybarra (2008; 2009) indicated approximately 66 participants were needed to view the effect sizes expected (η_p^2 = .11). While we were not interested in the motive asymmetry bias in Experiment 1, we did want to have equal numbers of Republicans and Democrats to ascertain if there was a difference between the two groups in their reactions to threat. We examined participants' responses to the two measures of political affiliation for any discrepancy (e.g., identifying as Republican and also as extremely Liberal or as Democrat and extremely Conservative). We followed the same procedure as in Chapter 2 and we removed participants indicating party misalignment; 61 participants' data

were left for analysis. There were 21 Republicans, 30 Democrats, with 34.4% Conservative, 49.2% Liberal, and 16.4% Moderates. Numbers were roughly equivalent in the High Threat (11 Republicans, 19 Democrats), and Low Threat conditions (14 Republicans, 17 Democrats). Participants were between the ages of 18 and 71 (M = 34.52, SD = 13.44) and 57.4% were Female, 42.6% were Male. We used a 2 (Threat: High vs. Low) x 2 (Political Alignment: Republican vs. Democrat) between participants design with General Threat as the dependent variable.

3.2.2 Materials

Threat Manipulation. To manipulate threat, we used fictitious editorials, similar to those used by Morrison and Ybarra (2009); we had intended to complete a direct replication, but these authors indicated that they no longer had the original materials. Thus, we were forced to conduct a conceptual replication that was as close to a direct replication of the manipulation as we could manage. These editorials were supposedly written by American citizens and in each different condition the language was designed to highlight high or low threat (see Table 2 for the editorials and Appendix I for full materials).

Table 2

Experiment 1 Threat Manipulation - Editorials

Low Threat	High Threat
The U.S. is at a key juncture in its history, and Americans are facing many issues that must be examined. We have made gains in our status and resources as well as our fundamental values. We have also gained jobs recently and have kept our portion of public benefits. Overall, Americans have coexisted side-by-side and relatively peacefully for decades. The important issues that exist today will need to be resolved over the coming years, and this will require the interaction of every American. How this interaction unfolds will be important for the U.S. …	The U.S. is at a key juncture in its history, and Americans are facing many issues that must be examined. We need to protect our fundamental beliefs, values, and resources more than ever. Our jobs are being taken by outsiders and we are losing out on public benefits. Overall, the absence of a true balance of belief systems can ultimately lead to divisiveness. The important issues that exist today will need to be resolved over the coming years, and this will require the interaction of every American. How this interaction unfolds will be important for the U.S. …

General Threat Measure. To measure general threat, we included a series of four statements that asked about both individual- and group-level threat. Participants were asked to indicate their agreement/disagreement to the statements on a 7-point Likert scale from (1) *Disagree Strongly* to (7) *Agree Strongly*. For example, "I feel a threat to my beliefs and values", and "I feel a threat to my group's resources and power within society" (see Appendix J). These items were designed to assess general threat and were adapted from themes and items used in Stephan, Boniecki, et al. (2002) 24-item threat measure. All items were averaged for one General Threat score ($M = 4.08$, $SD = 1.82$, $\alpha = .916$).

Symbolic and Realistic Threat from General Outgroups. We also included six items in total to measure perceived symbolic and realistic threat from outgroups, three each for Symbolic and Realistic Threat. These items were adapted from Stephan et al.'s (2002)

measures of symbolic and realistic threat (see Appendix K). All items were averaged to create a total Symbolic and Realistic Threat score (M = 3.68, SD = 1.59, α = .884).

Political Affiliation. Previous research indicates that those who ascribe to different political parties tend to respond differently to threats (Jost, Glaser, et al., 2003; Jost, Stern, et al., 2017). We included two measures of political affiliation (see Appendix D). Participants selected the political party to which they most closely identify (Republican or Democrat; i.e., Political Alignment), and then answered a question about their Political Ideology on a 7-point Likert scale of (1) *Extremely Liberal* to (7) *Extremely Conservative* (M = 3.68, SD = 2.10).

Memory Questions. As part of the attention and memory cover story, participants completed six questions about the content of the Editorial Paragraph that they had read (see Appendix L).

3.2.3 Procedure

We recruited participants from Prolific.co only if they were eligible for this study, had not completed any similar studies, and classified themselves as belonging to either the Republican or Democratic political party. Participants were then told it was a survey testing their attention and memory of newspaper editorials; they read an information sheet and provided consent before moving on to the survey. They then completed a number of demographic questions, including a 7-point Likert scale of Political Ideology, ranging from (1) *Extremely Liberal* to (7) *Extremely Conservative*. Participants then completed a few filler questions (i.e., two Need for Cognition items that were pre-tested to be unrelated to political ideology), and were randomly assigned to either High or Low threat. They then read one of two different fictitious editorials depending on threat condition.

Participants then completed another filler task (i.e., two more Need for Cognition items) before completing questions from the threat measure and the six memory control

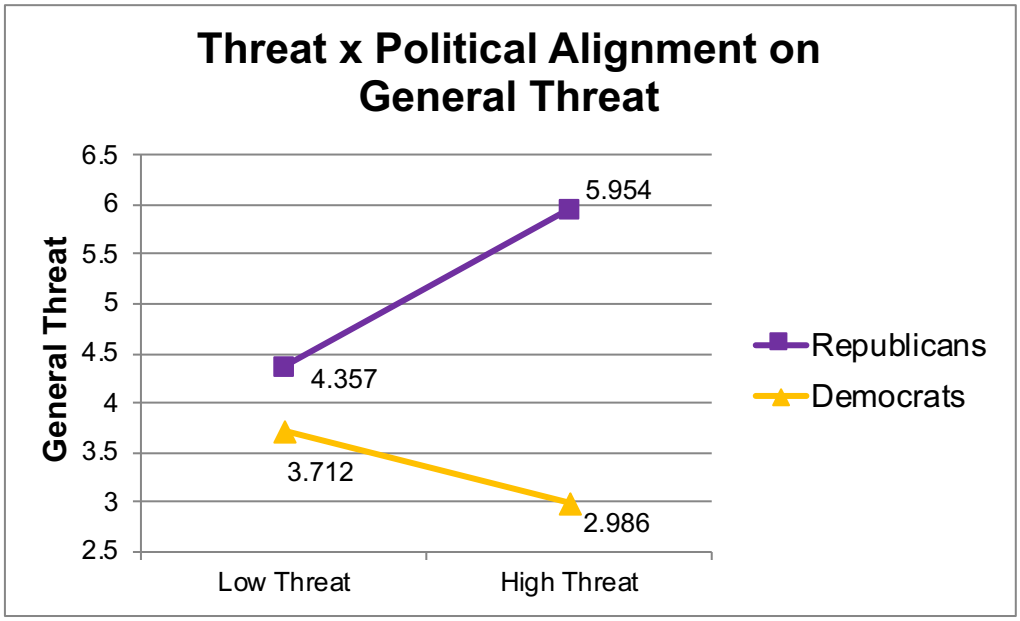
questions included only to aid in the cover story. Participants were then asked to indicate their Political Alignment as either a Republican (the conservative party) or a Democrat (the liberal party), were debriefed and thanked for their time.

3.2.3 Results

Threat Manipulation. To test the threat manipulation a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANOVA was conducted with measured General Threat as the dependent variable. There was a non-significant main effect of the Threat manipulation on General Threat, $F(1,57) = 1.411$, $p = .240$, $\eta_p^2 = .024$, but a *significant* main effect of Political Alignment, $F(1,57) = 18.463$, $p < .001$, $\eta_p^2 = .290$. This main effect was qualified by a significant interaction of Threat and Political Alignment, $F(1,57) = 7.963$, $p = .007$, $\eta_p^2 = .123$ (See Figure 9). Republicans indicated more threat in the High Threat condition ($M = 5.95$, $SD = 0.73$) than in the Low Threat condition ($M = 4.36$, $SD = 1.77$). Contrary to expectations, Democrats exhibited the opposite pattern with less threat in High Threat condition (M = 2.99, SD = 1.45) than in the Low Threat condition (M=3.71, SD=1.78). For the Symbolic-Realistic Threat measure, we found a non-significant main effect of Threat, $F(1, 57) = 0.000$, $p = .999$, $\eta_p^2 = .000$, a *significant* effect of Political Alignment, $F(1, 57) = 27.015$, $p < .001$, $\eta_p^2 = .322$, and *significant* interaction, $F(1, 57) = 18.071$, $p < .001$, $\eta_p^2 = .241$; see Figure 10). For the Total Threat measure, we observed a non-significant main effect of Threat, $F(1, 57) = 0.551$, $p = .461$, $\eta_p^2 = .010$, a *significant* effect of Political Alignment, $F(1, 57) = 31.182$, $p < .001$, $\eta_p^2 = .354$, and *significant* interaction, $F(1, 57) = 14.932$, $p < .001$, $\eta_p^2 = .208$; see Figure 11). The pattern of data for Republicans and Democrats for the Symbolic-Realistic Threat and the Total Threat measures were the same as for the General Threat measure.

Figure 9

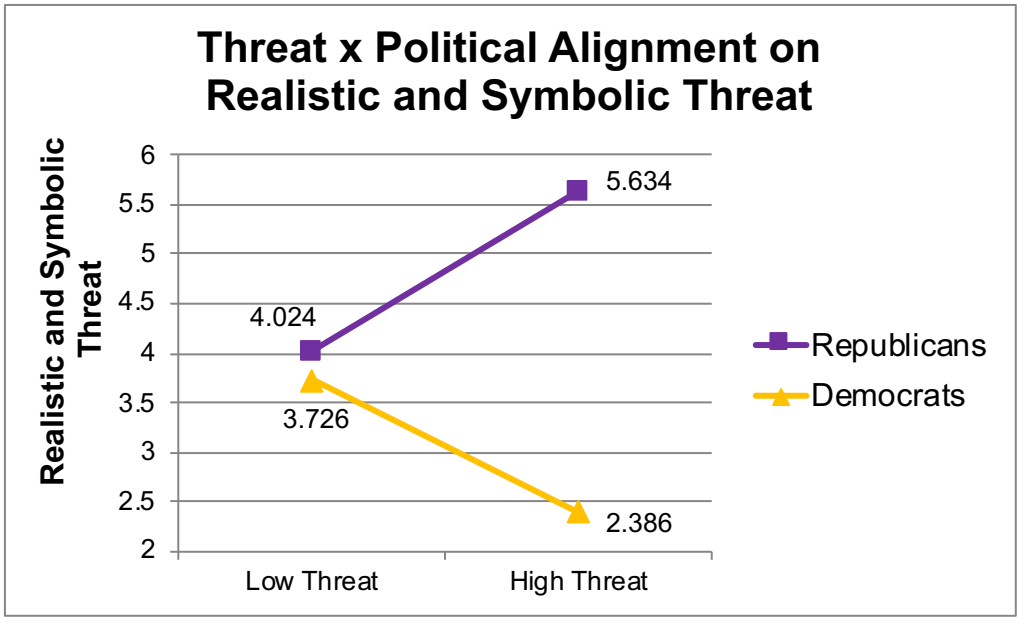
Threat by Political Alignment (Republican/Democrat) on General Threat Measure



Note: Interaction significant at $p < .01$

Figure 10

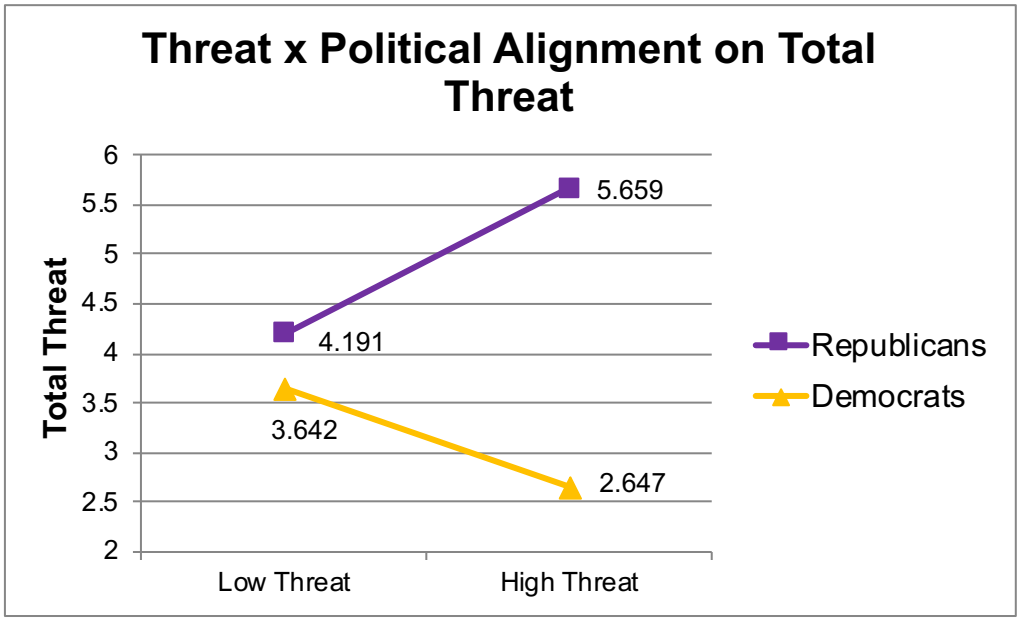
Threat by Political Alignment (Republican/Democrat) Interaction on Realistic and Symbolic Threat Measure



Note: Interaction significant at $p < .001$

Figure 11

Threat by Political Alignment (Republican/Democrat) Interaction on Total Threat Measure



Note: Total Threat: mean of realistic and symbolic threat measure and general threat measure items. Interaction significant at $p < .001$

For all three measures, Republicans indicated more threat in the High Threat condition than in the Low Threat condition. In contrast, Democrats exhibited the opposite pattern with less threat in High Threat condition than in the Low Threat condition. This supports the general research that Conservatives respond to high threats more than do Liberals (Dodd et al., 2012; Jost et al., 2007; Vigil, 2010). Democrats, however, showed an unexpected pattern in which they expressed more threat in Low Threat condition compared to the High Threat condition. We had anticipated that they would express more threat in the High Threat condition, but that the increase in perceived threat would be less extreme than Republicans in the High Threat condition. Alternatively, we also could have observed no difference between Democrats and Republicans in the High Threat condition (i.e., an equal increase in perceived

threat) and that there would be a non-significant Threat x Political Alignment interaction, and just a main effect of Threat. Finally, The significant Threat x Alignment interaction (η_p^2 = .123) remained significant, $F(1,67) = 4.256$, $p = .043$, $\eta_p^2 = .060$ even when using the sample (all 71 participants) that contained participants whose affiliation responses were conflicting (e.g., identifying as a Democrat and extremely Conservative). The interaction pattern also remained the same.

Examining the simple slopes of Republicans' and Democrats' threat scores individually, regression analyses indicated a large effect size for the Republican participants' (η_p^2 = .254) and a medium effect size for Democratic participants' slope (η_p^2 = .051). While the impact was not statistically significant for Democratic participants, the effect size suggests that it may be significant if replicated with a larger sample size.

3.2.4 Discussion

To test the efficacy of this threat manipulation, we conducted a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANOVA on the General Threat measure. We included Political Alignment because previous research indicated that those who ascribe to different political ideologies may respond somewhat differently to threats. The non-significant main effect of Threat indicated our threat manipulation did not have the intended effect of causing more perceived threat for both Republicans and Democrats. However, the significant main effect of political alignment supports the literature on Liberals and Conservatives responding differently to threats; in this case, Republicans showed more threat overall when collapsing across high and low threat conditions. The significant Threat x Political Alignment interaction indicated that both threat and political alignment influenced general perceived threat, however, only Republicans showed more threat in the High Threat condition compared to Low Threat condition.

Previous studies suggest the conceptual threat manipulation we used in our experiment has been used successfully to induce high or low threat (Morrison & Ybarra, 2009). For one of our groups, this was the case. Conservatives did show the expected significant rise in perceived threat in the High Threat condition. However, Liberals reacted in the opposite direction, showing lower levels of perceived threat in the High Threat compared to the Low Threat condition. We had expected that Liberals would still have demonstrated more threat in the High Threat compared to Low Threat condition, but it would have been a less extreme increase for Democrats than Republicans, as previous literature has indicated that Conservatives are generally more responsive to threats than Liberals (Hibbing et al., 2014; Jost, Glaser, et al., 2003; Jost, Stern, et al., 2017; Lilienfeld & Latzman, 2014; Oxley et al., 2008). While there is some support for Liberals being more likely to adopt a conservative viewpoint in higher threat conditions (known as the "conservative-shift"), literature does not indicate that Liberals feel less threat in a high than low threat condition (Craig & Richeson, 2014; Jost, Stern, et al., 2017; Nail et al., 2009; Thorisdottir & Jost, 2011). Considering the literature, we also anticipated that we may have observed an equal increase in perceived threat in which the main effect of threat would not be qualified by the Threat x Political Alignment interaction. However, neither expectation was met: an equal or lower amount of perceived threat for Democrats in the High Threat compared to the Low Threat condition is counter to the established literature. Given the results, the small-to-medium Threat effect size for liberals indicates that this pattern in the data may not be replicated in a larger sample. It will be worthwhile to attempt to replicate this effect. The large effect for conservatives is much more likely to be replicated.

Considering the results of this manipulation, we investigated alternative possibilities for manipulating threat. Within ITT, realistic and symbolic threats are most often examined,

so we continued in manipulating realistic and symbolic threats throughout (Stephan & Stephan, 2016).

3.3 Experiment 2a: Stereotype Scale Manipulation

Results of the first editorial threat manipulation were inconsistent between Republicans and Democrats. While we made plans for continuing to test this Editorial Threat Manipulation, we reviewed other threat manipulations to pursue a second type of threat manipulation to test. We observed that Morrison and Ybarra (2008) utilized a survey threat manipulation of perceived threat from Asians. They took five items from the Negative Attitudes towards Asians scale for the threat condition, and five negative stereotypes about Asians, pretested to avoid associations with threat, for the control condition. We designed a similar stereotype scale manipulation with immigrants as the target outgroup instead of Asian Americans. We used six items adapted from Stephan, Ybarra, and Bachman (1999) threat from immigrants scale, and six negative stereotypes we pretested to not be associated with threat. Not only does this manipulation differ in the target outgroup (immigrants instead of Asians), but our measure of perceived threat also differs. Morrison and Ybarra (2008) measured the efficacy of their threat manipulation through a single item asking participants to indicate "whether they [participants] thought the items suggested that Asian Americans pose a threat to other American racial/ethnic groups" (study 2, p. 160). Our experiment also differed in that we measured participants' perceived threat instead of whether participants thought Asian Americans posed a threat to other American ethnic groups.

3.3.1 Participants and Design

We recruited 97 Republicans and Democrats from the Prolific.co participant recruitment site, data collection in August 2018. As in Experiment 1, a priori analyses indicated approximately 66 participants were needed to view the expected effect size.

Considering the small effect sizes from Experiment 1, we recruited a larger sample to account for the possibility of a smaller effect. Following the procedure of Experiment 1 and Chapter 2, we removed three participants with a political affiliation discrepancy (e.g., identifying as Republican and also as extremely Liberal or as Democrat and extremely Conservative), leaving 94 participants. There were 45 Republicans and 49 Democrats, with 35.1% Conservative, 44.7% Liberal, and 20.2% Moderate with roughly equivalent numbers in both the High Threat (23 Republicans, 21 Democrats) and Low Threat conditions (22 Republicans, 28 Democrats). Participants were between the ages of 18 and 72 (M = 30.46, SD = 11.58), 76.6% were White, and the remaining 23.4% were of the following ethnicities: 7.4% Southeast Asian, 3.2 % Black, 1.1 % Indian, 6.4% Latino or Hispanic, and 5.3 % other. Of the participants, 35.1% were Female, 66.0% were Male. Once again, we used a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) between participants design with General Threat as the dependent variable.

3.3.2 Materials

High Threat Condition. We used six items from Stephan, Ybarra, & Bachman's (1999) 15-item threat from immigrants scale as the high threat condition, three each of symbolic and realistic threat items. We pre-tested the 15 items with several stereotype items and chose the six items with the combination of the highest correlation with the overall threat measure, and the lowest correlation with the six negative stereotypes used in the control, low threat condition (see appendix M for pilot study results and correlations). The three symbolic threat items included the following: 1) The values and beliefs of immigrants regarding work are basically quite similar to those of most Americans, 2) The values and beliefs of immigrants regarding family issues and socializing children are basically quite similar to those of most Americans, and 3) Immigrants should *not* have to accept American ways. The

three realistic threat items included the following: 1) Immigration has increased the tax burden on Americans, 2) Immigrants are ***not*** displacing American workers from their jobs, and 3) The quality of social services available to Americans has remained the same, despite immigration. These were presented as six items on a 7-point Likert scale from (1) *Disagree Strongly* to (7) *Agree Strongly* (see Appendix N).

Low Threat Condition. In order to avoid an effect being only due to the negative valence of the symbolic and realistic threat scale, the low threat condition was composed of six negative stereotypes associated with immigrants, similar to the procedure used by Morrison and Ybarra (2008). We pretested a number of stereotype items with the 15-item threat from immigrants scale and chose these six stereotype items with a low total correlation with the average Threat score (Pearson's $r = 0.037$). The stereotype items were presented as a six-item questionnaire on a 7-point Likert scale from (1) *Disagree Strongly* to (7) *Agree Strongly*. Each item was presented in the format of "Immigrants are…" The negative stereotype items included were proud, cowardly, insecure, unreliable, clumsy, and restrictive. Both High and Low Threat item are included in Appendix N. See Table 3 for an overview of the items included within the High and Low Threat conditions.

Table 3

High and Low Threat Items Experiment 2a

High Threat	Low Threat
All Symbolic and Realistic items presented in a random order. Perceived Symbolic 1. The values and beliefs of immigrants regarding work are NOT similar to those of most Americans. 2. The values and beliefs of immigrants regarding family issues and socializing children are NOT similar to those of most Americans. 3. Immigrants should not have to accept American ways. Perceived Realistic 4. Immigration has increased the tax burden on Americans. 5. Immigrants are displacing American workers from their jobs. 6. The quality of social services available to Americans decreased due to immigration.	All Stereotype items presented in a random order. Please indicate how much you agree or disagree with the following statements. 1. Immigrants are proud. 2. Immigrants are cowardly 3. Immigrants are insecure 4. Immigrants are unreliable 5. Immigrants are clumsy 6. Immigrants are restrictive

General Threat Measure. We used the measure of general threat used in Experiment 1, which included a series of four statements that assessed both individual- and group-level threat. Participants were asked to indicate their agreement/disagreement to the statements on a 7-point Likert scale from (1) *Disagree Strongly* to (7) *Agree Strongly*. These items were included in order to assess general threat based on Stephan et al. (2002) 24-item threat measure (see Appendix J). All items were averaged to create a single General Threat score (M = 3.20, SD = 1.70, α = .916). We had to drop the specific Symbolic- and Realistic-Threat

items as dependent measures because these items were used as part of the Threat Scale Manipulation.

Filler Task. As we did in previous studies, participants completed items from the Need for Cognition (Cacioppo et al., 1984) scale that had been chosen because they were not significantly correlated with the threat items (see Appendix C).

Political Affiliation. Participants completed the same two questions from Experiment 1 that assessed their political affiliation. One question asked about the political party to which they most closely aligned, Republican or Democrat (i.e., Political Alignment), and the other question asked about Political Ideology on a 7-point Likert scale from (1) *Extremely Liberal* to (7) *Extremely Conservative* ($M = 3.71$, $SD = 1.75$), see Appendix D.

Memory Questions. As part of the attention and memory cover story, participants answered six questions about the content of the Opinion Survey that they had completed (see Appendix L).

3.3.3 Procedure

Eligible participants were recruited via Prolific.co for monetary compensation and were directed from the Prolific website to the survey. Participants read an online information sheet, and then confirmed their consent to participate before being allowed to continue with the survey. Participants completed demographic information, including gender, race, age, country of residence, and political affiliation. Participants were then randomly assigned to one of two conditions, High or Low Threat. They were told a cover story that we were testing attention and memory from a number of questionnaires; this procedure was a conceptual replication of the cover story used by Morrison and Ybarra (2008) in their stereotype scale manipulation. Participants then completed two Need for Cognition filler items that had been pretested to have a low correlation with political ideology, and then participants completed

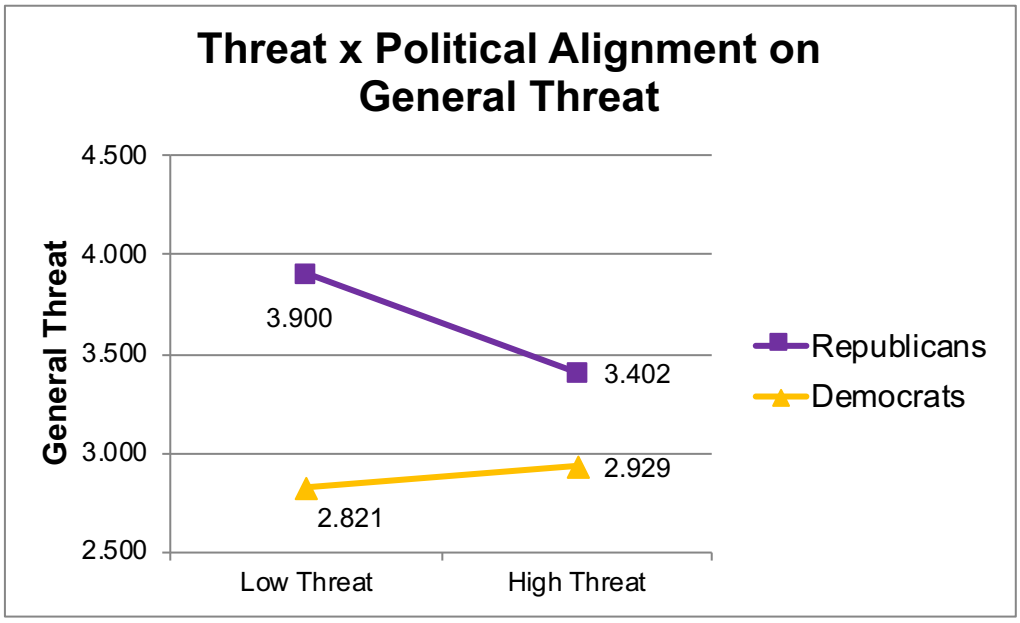
the four items assessing general threat. Participants were then debriefed and thanked for their time.

3.3.4 Results

To test the Threat manipulation, a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANOVA was conducted on the mean of General Threat. There was a non-significant main effect of Threat, $F(1,90) = 0.310$, $p = .597$, $\eta_p^2 = .003$, a *significant* effect of Political Alignment, $F(1, 90) = 4.935$, $p = .029$, $\eta_p^2 = .052$, and non-significant interaction, $F(1,90) = 0.746$, $p = .390$, $\eta_p^2 = .008$; see Figure 12. This trend of results in the 94-participant sample was also observed in the full sample of 97 participants and in a sample of 72 participants that included only White participants.

Figure 12

Threat by Political Alignment (Republican/Democrat) on General Threat Measure



While the Threat x Political Alignment interaction was not significant, we decided to examine the pattern of the interaction to gain further insight. Republicans reported less perceived threat in the High Threat condition (M = 3.402, SD = 1.546) than in the Low Threat condition (M = 3.90, SD = 1.60). Democrats reported the opposite pattern with more threat in the High Threat condition (M = 2.93, SD = 1.76) than in the Low Threat condition (M = 2.82, SD = 1.79). While these differences are not significant, the pattern is opposite to that one found in the Experiment 1 using the editorial threat manipulation. In particular, Republicans showed the biggest difference in regard to the different patterns observed in Experiments 1 and 2.

3.3.5 Discussion

Experiment 2a using the Stereotype Scale Threat manipulation failed to find support for the expected Threat x Political Alignment interactive effect or the expected main effect of the Threat manipulation. We had included Political Alignment because research has found that liberals and conservatives respond somewhat differently to threat in which conservatives tend to be more responsive to threat. While we did not observe the expected Threat x Political Alignment interaction, we did find that Republicans expressed more perceived threat than Democrats when collapsing across Threat conditions, and that Republicans expressed more perceived threat in the High Threat condition (M = 3.40, SD = 1.55) than did Democrats (M = 2.93, SD = 1.76). The main issue was that Republicans did not express more threat in the High Threat (M = 3.40) compared to Low Threat condition (M = 3.90), which was contrary to both Experiment 1 and with the majority of the literature. This result was particularly surprising since the threat manipulation was a conceptual replication of a successful threat manipulation used in published studies (Morrison & Ybarra, 2008).

The significant main effect of Political Alignment is supportive of a wide body of literature showing that Liberals and Conservatives tend to respond differently to threats, with those that hold a conservative political ideology being generally more attentive and responsive to threats (Dodd et al., 2012; Vigil, 2010). However, the response pattern between Republicans and Democrats was different to that of the first editorial threat manipulation.

When reviewing the questions and manipulation, we discovered that the memory control questions asked about an "essay", as opposed to an "opinion survey," which may have confused some of the participants. While it is a reach to say that this would flip the results, we did think it was important to address it in a follow-up experiment. Since the threat scale questions were the threat manipulation in Experiment 2, having the high threat questions being reverse-scored, and thus, positively worded, may have also influenced participants to respond with less threat than predicted. With these considerations, we developed a second study for this stereotype scale manipulation addressing those concerns.

3.4 Experiment 2b: Stereotype Scale Manipulation

Considering the results of the previous study and possible confounds in the operationalization of the manipulation, we designed and re-ran the study with an altered high threat condition.

3.4.1 Participants and Design

We recruited 90 Republicans and Democrats through Prolific.co, data collection September 2018, and removed three participants who indicated misalignment between Political Ideology and Political Alignment leaving 87 participants in the sample. There were 37 Republicans and 50 Democrats, with 34.5% Conservative, 49.4% Liberal, and 16.1% Moderate. There were roughly equal numbers of each in the High Threat (17 Republicans, 26 Democrats) and Low Threat conditions (20 Republicans, 24 Democrats). Participants were

between the ages of 18 and 71 (M = 31.31, SD = 11.54), 72.4% were White and the remaining 27.6% were of the following ethnicities: 5.7% Southeast Asian, 6.9% Black, 1.1% Middle Eastern, 1.1% Indian, 6.9% Latino or Hispanic, and 5.7% other. Of the participants, 51.7% were Female, and 48.3% Male. We used the same design as in Experiment 2a.

3.4.2 Materials

High Threat Condition. Because the majority of the items used in the previous threat manipulation were reverse-scored, items in the second study were altered to only be non-reverse scored, which should lead to less confusion on the part of participants. Higher scores on all items would now indicate higher threat felt towards immigrants. The altered threat items were pre-tested with all stereotypes to ensure they were not highly correlated. The resulting six threat items and six negative stereotypes were not highly correlated (Pearson's r = -0.293). See pilot study results and correlations in Appendix M.

The three symbolic threat items included the following: 1) The values and beliefs of immigrants regarding work are NOT similar to those of most Americans, 2) The values and beliefs of immigrants regarding family issues and socializing children are NOT similar to those of most Americans, and 3) The values and beliefs of immigrants regarding moral and religious issues are NOT compatible with the beliefs and values of most Americans. The three realistic threat items included the following: 1) Immigration has increased the tax burden on Americans, 2) Social services have become less available to Americans because of immigration, and 3) The quality of social services available to Americans has decreased due to immigration. These were presented as six items on a 7-point Likert scale from (1) *Disagree Strongly* to (7) *Agree Strongly* (see Appendix N).

Low Threat Condition. As in the previous study, the control condition was composed of six negative stereotypes associated with immigrants, similar to what was done

by Morrison and Ybarra (2008). Since we altered the six items in the high threat condition, the stereotype items were also pretested again and the average of the six items were found to have a low correlation with the threat items (Pearson's r = -0.293). These were presented as a six-item questionnaire on a 7-point Likert scale from (1) *Disagree Strongly* to (7) *Agree Strongly*. Each item was presented in the format of "Immigrants are…" The six negative stereotype items included were proud, forgetful, insecure, restrictive, clumsy, and helpless. Both High and Low Threat item are included in Appendix N. See Table 4 for an overview of the items included within the High and Low Threat conditions.

Table 4

Threat Manipulation Items included in Experiment 2b

High Threat Items	Low Threat Items
All Symbolic and Realistic items presented in a random order. Perceived Symbolic 1. The values and beliefs of immigrants regarding work are NOT similar to those of most Americans. 2. The values and beliefs of immigrants regarding family issues and socializing children are NOT similar to those of most Americans. 3. The values and beliefs of immigrants regarding moral and religious issues are NOT compatible with the beliefs and values of most Americans. Perceived Realistic 4. Immigration has increased the tax burden on Americans. 5. Social services have become less available to Americans because of immigration. 6. The quality of social services available to Americans decreased due to immigration.	All Stereotype items presented in a random order. Please indicate how much you agree or disagree with the following statements. 1. Immigrants are proud. 2. Immigrants are forgetful 3. Immigrants are insecure 4. Immigrants are restrictive 5. Immigrants are clumsy 6. Immigrants are helpless

General Threat Measure. We used the same measure of general threat that was used in Experiments 1 and 2a (Appendix J). All items were averaged for one General Threat score ($M = 3.35$, $SD = 1.64$, $\alpha = .916$).

Filler Task. Participants completed the same questions from the Need for Cognition scale that we used in previous studies (see appendix C).

Political Affiliation. We used the same two items assessing Political Ideology and Political Alignment that had been used in Experiments 1 and 2a. The Political Ideology question was on a 7-point Likert scale from (1) *Extremely Liberal* to (7) *Extremely Conservative* (*M* = 3.51, *SD* = 1.74). Items included in Appendix D.

Memory Questions. As part of the attention and memory cover story, participants answered the same six questions as experiment 2a about the content of the Opinion Survey that they had completed (see Appendix L).

3.4.3 Procedure

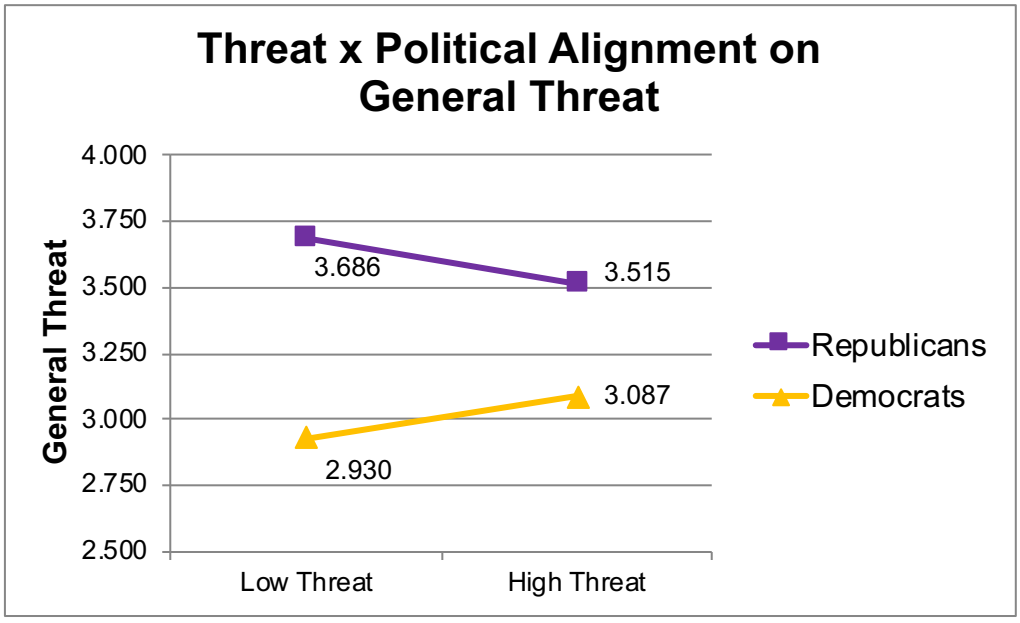
The procedure was the same as in the previous experiment, but with the above changes to the High Threat condition questions and altered follow-up memory question asking about the "opinion survey" instead of the "essay."

3.4.4 Results

To test the threat manipulation, a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANOVA was performed on the mean of General Threat. There was a non-significant main effect of Threat, $F(1, 83) = 0.000$, $p = .985$, $\eta_p^2 < .001$, a non-significant effect of Political Alignment, $F(1, 83) = 2.872$, $p = .094$, $\eta_p^2 = .033$, and non-significant interaction, $F(1, 83) = 0.224$, $p = .637$, $\eta_p^2 = .003$; see Figure 13). This trend of results for the 87-participant sample was also seen in the full sample of 90 participants and in a sample of just White participants (63 participants).

Figure 13

Threat by Political Alignment (Republican/Democrat) on General Threat Measure



A breakdown of Republicans' and Democrats' threat responses by condition again revealed an interesting pattern: Republicans reported slightly less threat in the High Threat (M = 3.52, SD = 1.39) than in the Low Threat condition (M = 3.69, SD = 1.70). Democrats demonstrated the opposite pattern, with more threat in the High Threat (M = 3.09, SD = 1.69) than the low threat (M = 2.93, SD = 1.60) condition. While these differences are again not significant, the pattern replicates that of the previous Stereotype Scale manipulation pilot study, and is opposite to that of the previous editorial threat manipulation pilot study and of the pattern from the general literature on political ideology and threat.

3.4.5 Discussion

The non-significant main effect of threat indicates that overall our manipulation was not successful in inducing different levels of threat. This was again surprising due to the design of this manipulation being a close conceptual replication of the successful

manipulation by Morrison and Ybarra (2008). Given that two experiments have failed to replicate the effects of the threat manipulation using the stereotype scale as the control condition, we decided to abandon this manipulation and return to the more promising editorial manipulation. The non-significant interaction between Threat and Political Alignment also justified abandoning the manipulation. Not only was there not a significant difference when alignment was factored, the pattern of the was in the unexpected direction higher perceived threat for Conservatives in the High Threat condition, which was a similar pattern to Experiment 2a. Even with the previous methodological issues addressed from the previous stereotype scale threat manipulation, the pattern of responses was replicated.

The pattern observed in Experiments 2a and 2b was different than the pattern observed in Experiment 1 that used the more successful Editorial Threat manipulation. In that experiment, Republicans responded with *more* threat in the High Threat condition ($M = 5.95$, $SD = 0.73$) than the Low Threat condition ($M = 4.36$, $SD = 1.77$) while Democrats who responded with *less* threat in the High Threat condition ($M = 2.99$, $SD = 1.45$) than in the Low Threat condition ($M = 3.71$, $SD = 1.78$). Overall, Republicans and Democrats respond differently to threats, as previous research has established. However, the manner and pattern of responses was unexpected for Democrats. One possible factor that could clarify results may be psychological reactance.

Reactance. Reactance is the "extent to which people are emotionally resistant to restrictions on their behavioural freedom, and to the advice and influence of others" (Iyer et al., 2012, p. 12). Those higher in trait reactance may be more inclined to behave in a way that is geared towards regaining a sense of freedom that has been lost, or perceived to have been lost (Knight et al., 2014; Laurin et al., 2013). Individuals high in trait reactance may also be more sensitive to freedoms and control, or the loss thereof (Knight et al., 2014). If any

participants feel a loss of freedom, or on some level consider the threat manipulation as an attempt to control their response in a certain direction, they may respond greater in the opposite manner, whether consciously or not.

If reactance is an explanation for some the data, why would it only be evident in Democrats and not Republicans? Previous research has indicated a slight difference in reactance between Liberals and Conservatives, with Liberals displaying slightly more reactance (Iyer et al., 2012). Individuals may react differently to restrictions, perhaps due to the stimulus or to trait reactance (Steindl et al., 2015). As Conservatives tend to be more sensitive to threats, could Liberals be more sensitive to restrictions or more sensitive to being perceived as biased, especially against lower status groups who they more often express a willingness to help? If so, would Liberals perceive a restriction of freedom in the current threat manipulation or be reluctant to express feeling threat toward a group who they are generally more positive toward or more willing to help? If we find that Democrats and Conservatives show differences on the Reactance measure, then we can include it as a factor in the analyses. If we find that they do not show differences on the Reactance measure, then it can still be included as a covariate because reactance has been associated with perceived threats. For example, reactance has been correlated with perceived threats to personal identity and threats to one's group identity (Graupmann et al., 2012; Lemus et al., 2015); thus, answering questions about perceived threats to one's group may cause participants, who are high in reactance, to see more threat when answering those question. With these considerations, we again tested the first editorial manipulation and included a measure of psychological reactance.

3.5 Experiment 3a: Editorial Threat Manipulation with Reactance Measure

The results of Experiment 1 utilizing an editorial manipulation were not replicated in the second set of experiments (Experiments 2a-b) that used a stereotype scale manipulation, with negative stereotypes as the low threat condition. Despite the pattern of results being different among these first three experiments, Republicans and Democrats did consistently respond differently to the threat manipulations. The difference in responsiveness to threat is consistent with the literature on political ideology and threat, though the odd pattern for Democrats is not as consistent. One possible explanation for these differences could be a difference in reactance between those that tend to ascribe to Liberal and Conservative ideologies. We again piloted the editorial threat manipulation from Experiment 1, but this time, we included a measure of psychological reactance as an a priori variable to examine in relation to the threat manipulation.

3.5.1 Participants and Design

We recruited 102 participants, data collection October 2018, and removed four participants who had misalignment between Political Ideology and Political Alignment measures, leaving 98 participants. As in the previous experiments, a priori analyses indicated at least 66 participants were needed to view the expected effect size based in Morrison and Ybarra (2008; 2009) manipulations. We recruited a larger number of participants to account for the possible smaller effect sizes. There were 51 Republicans and 47 Democrats whom 40.8% were Conservative, 44.9% Liberal, and 14.3% Moderate. There were roughly equal numbers of each in the High Threat (27 Republican, 20 Democrat) and Low Threat conditions (24 Republican, 27 Democrat). Participants were between the ages of 18 and 78 (M = 35.42, SD = 13.64) where 76.5% were White, and the remaining 25.3% were of the following ethnicities: 3.1% Southeast Asian, 9.2% Black, 1.0% Middle Eastern, 1.0% Indian, 6.1%

Latino or Hispanic, and 3.1% other. Of the participants, 51% were Female, 49% were Male. Once again, we used a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) between participants design with General Threat as the dependent variable.

3.5.2 Materials

High Threat Condition. For the high threat condition, we used the editorial threat manipulation from Experiment 1. This was a conceptual replication that was as close to a direct replication of Morrison and Ybarra (2009) as we could manage without having the original materials available. Participants were told that the editorial was written by an American citizen; it contained phrases relating to both symbolic (i.e., beliefs and values) and realistic (i.e., jobs and resources) threat. For example, it stated Americans' jobs "are being taken by outsiders" and that there is a "need to protect fundamental beliefs, values, and resources." As in the first pilot, this editorial did not mention Republicans and Democrats as a specific outgroup. Instead, it mentioned Americans in general, with general outsiders as the target group.

Low Threat Condition. For the low threat condition, an editorial was used similar to that used by Morrison and Ybarra (2009). This editorial was purported to be written by an American citizen and contained neutral items related to symbolic (i.e., beliefs and values) and realistic (i.e., jobs and resources) threat. It stated that Americans have "made gains in status and resources" and that "Americans have coexisted side-by-side and relatively peacefully." As in the high threat condition, no specific group was mentioned. The first and last sentences of both the high and low threat conditions were the same (see Appendix I for the threat manipulation).

General Threat Measure. We used the same measure of General Threat as the previous experiments (see Appendix J). Items were averaged together to create a General Threat score (M = 3.93, SD = 1.68, α = .899).

Symbolic and Realistic Threat from General Outgroups. As we did in Experiment 1, we included a six-item measure assessing symbolic and realistic threat from general outgroups, adapted from Stephan, Boniecki, et al. (2002) 24-item measure of symbolic and realistic threat. Typical items are "Outgroups pose a threat to my group's beliefs and values" and "Outgroups want their rights to be put ahead of the rights of my group." A higher mean score of these items indicates a higher perceived threat from outgroups (see Appendix K). Items were averaged together for one measure of symbolic and realistic threat (M = 3.82, SD = 1.94, α = .869).

Total Threat. All items from both the general threat measure and symbolic and realistic threat measure were averaged for one Total Threat score to be included in analyses (M = 3.87, SD = 1.30, α=.881).

Filler Task. In between demographic questions and the editorial, and between the editorial threat manipulation and the measure of general threat, participants completed items from the Need for Cognition scale (Cacioppo et al., 1984) – two each between both sets of questions (see Appendix C). Once again, we used items that had been pretested to have a low correlation with political ideology.

Reactance Scale. To measure reactance in participants, we included the refined 11-item Hong Reactance Scale (Hong & Faedda, 1996; α = .77). To match our threat measures, the 11 items were presented on a 7-point Likert scale from (1) *Strongly Disagree* to (7) *Strongly Agree* as opposed to the 5-point scale used by Hong & Faedda (see Appendix O). Example items include "I resist the attempts of others to influence me" and "I become angry

when my freedom of choice is restricted." All items were averaged for one reactance score, with higher scores indicating more psychological reactance ($M = 3.98$, $SD = 0.95$, $\alpha = .824$).

Political Affiliation. We used the same Political Alignment and Political Ideology measures as the previous experiments. The Political Ideology measure was on a 7-point Likert scale from (1) *Extremely Liberal* to (7) *Extremely Conservative* ($M = 3.73$, $SD = 2.02$), see Appendix D.

Memory Questions. As part of the attention and memory cover story, participants answered the same six questions as Experiment 1 about the content of the Essay that they had read (see Appendix L).

3.5.3 Procedure

Participants were recruited via Prolific.co. If participants met the criteria (including not having participated in similar previous studies) they were directed to an external survey site to complete the survey. Participants first read an information sheet including the cover story that this survey was about testing their memory of editorials. After providing consent, participants completed demographic questions including gender, age, race, and Political Ideology. Participants were then randomly assigned to one of two conditions, High or Low Threat. After reading the editorial, designed to induce either high or low threat, participants completed filler questions (e.g., two questions from the Need for Cognition scale), the two perceived threat measures (General Threat and Symbolic and Realistic Threat), and then the memory control questions to preserve the cover story. Participants were then told we were piloting other questions for a later survey and completed the reactance measure, and measure of Political Alignment. Participants were then debriefed and thanked for their time.

3.5.4 Results

Threat Manipulation. To test the threat manipulation, a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANOVA was conducted on the mean General Threat scores. We observed a non-significant main effect of Threat, $F(1, 94) = 0.001$, $p = .971$, $\eta_p^2 = .000$, a non-significant effect of Political Alignment, $F(1, 94) = 1.843$, $p = .178$, $\eta_p^2 = .019$, and a non-significant interaction, $F(1, 94) = 0.000$, $p = .987$, $\eta_p^2 = .000$ (see Figure 14). For the Symbolic-Realistic Threat measure, we observed a non-significant main effect of Threat, $F(1, 94) = 2.003$, $p = .160$, $\eta_p^2 = .021$, a *significant* effect of Political Alignment, $F(1, 94) = 28.035$, $p < .001$, $\eta_p^2 = .230$, and non-significant interaction, $F(1, 94) = 0.565$, $p = .454$, $\eta_p^2 = .006$; see Figure 15). For the Total Threat measure, we observed a non-significant main effect of Threat, $F(1, 94) = 0.827$, $p = .365$, $\eta_p^2 = .009$, a *significant* effect of Political Alignment, $F(1, 94) = 16.643$, $p < .001$, $\eta_p^2 = .150$, and non-significant interaction, $F(1, 94) = 0.214$, $p = .644$, $\eta_p^2 = .002$; see Figure 16).

Figure 14

Threat by Political Alignment (Republican/Democrat) on General Threat Measure

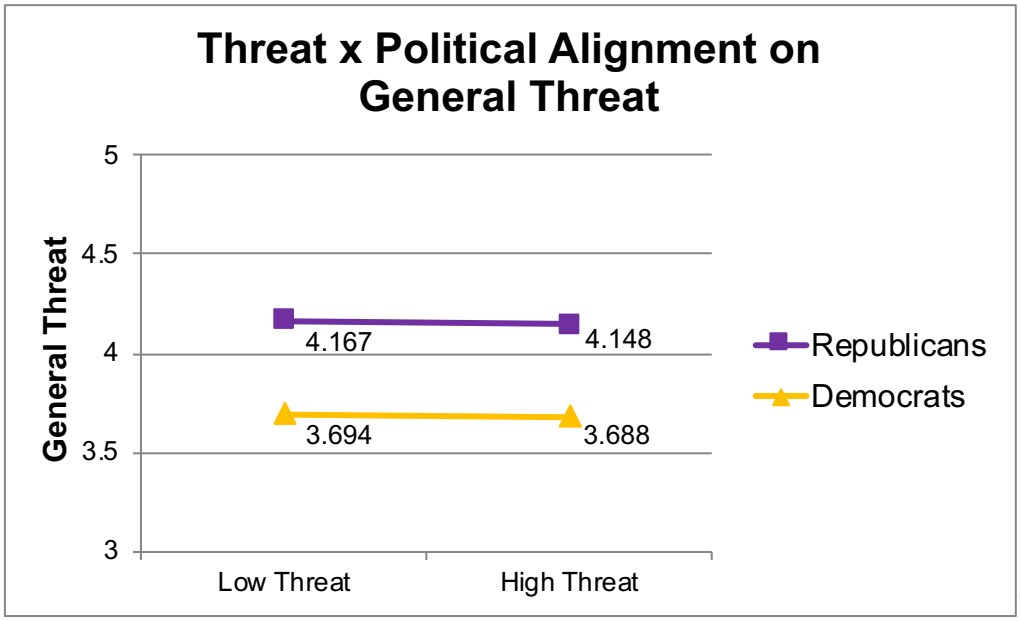


Figure 15

Threat by Political Alignment (Republican/Democrat) on Realistic and Symbolic Threat Measure

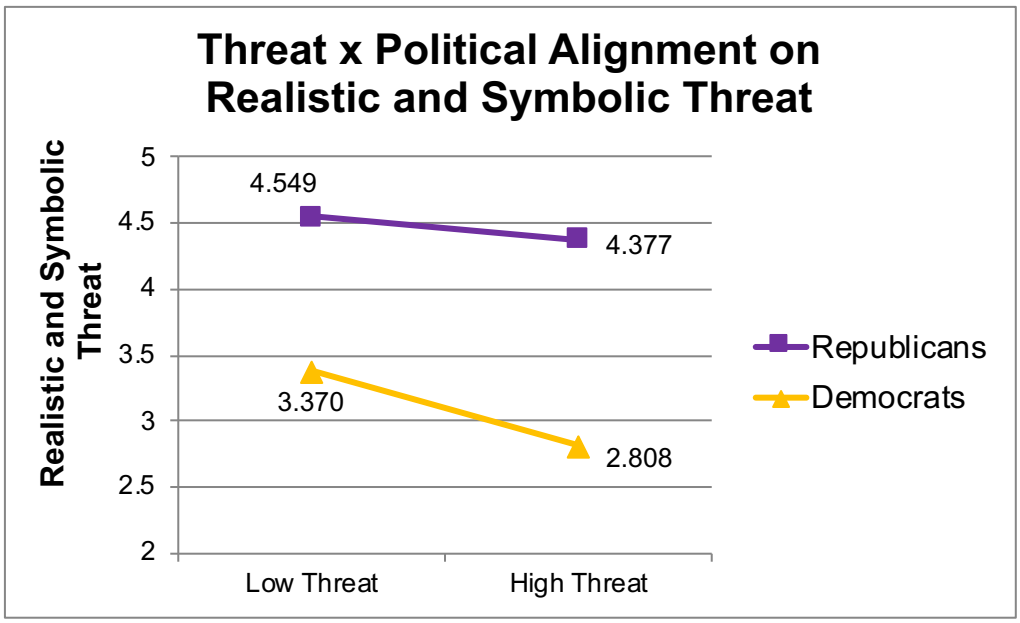
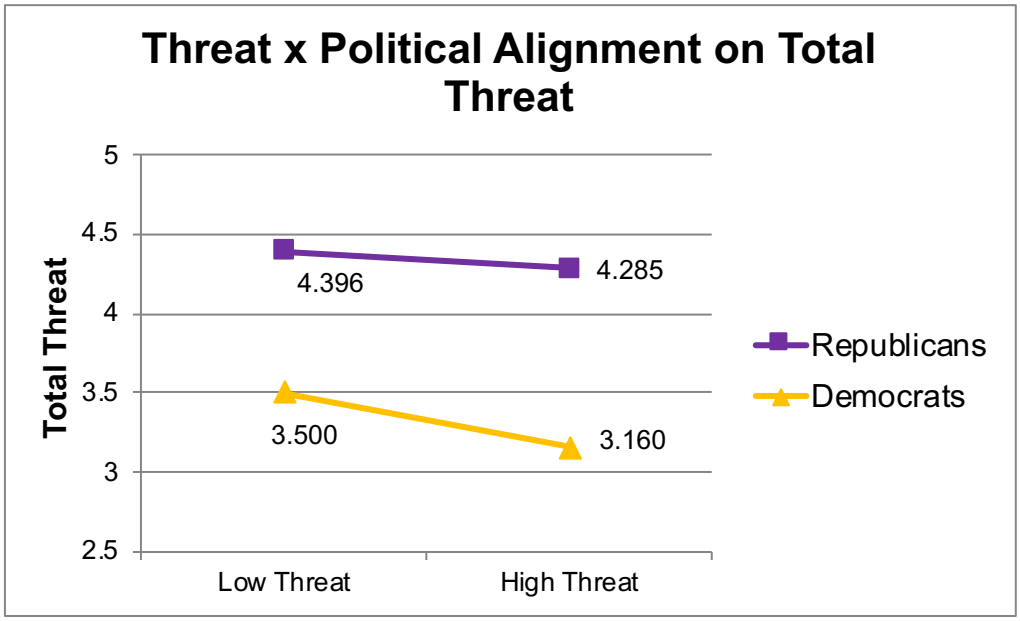


Figure 16

Threat by Political Alignment (Republican/Democrat) on Total Threat Measure



Note: Total Threat computed as the average of all General Threat and Realistic and Symbolic Threat items.

Even with the non-significant interactions for all three measures, it is worth reviewing the difference between Republicans and Democrats. The General Threat measure showed a different pattern than any of the previous studies. Republicans expressed equivalent levels of threat in the High Threat (M = 4.15, SD = 1.49) and Low Threat conditions (M = 4.17, SD = 1.79) and Democrats also expressed equivalent levels of threat in the High Threat (M = 3.69, SD = 1.88) and Low Threat conditions (M = 3.69, SD = 1.63). These patterns were similar for the Symbolic-Realistic Threat measure and the Total Threat measure, though for these two measures, both Republicans and Democrats showed slightly less threat in the High Threat compared to Low Threat condition. We triple checked the coding within the data file and

there was no miscoding of the High and Low Threat conditions in the experiment or in the data file for analysis. So, the effects observed are the actual effects in the data.

Reactance. We conducted an independent samples t-test to compare reactance scores between Republicans and Democrats. Results indicated no significant difference, $t(96) = 0.567$, $p = .572$, between Democrats ($M = 3.92$, $SD = 0.90$) and Republicans ($M = 4.03$, $SD = 1.00$) on reactance. Given that Reactance did not predict Political Alignment, it is a good candidate for being a covariate. Thus, we conducted a 2 (Threat: High/Low) x 2 (Political Alignment: Democrat/Republican) ANCOVA on General Threat with Reactance as the covariate. For the General Threat measure, we found a non-significant main effect of Threat, $F(1, 93) = 0.131$, $p = .718$, $\eta_p^2 = .001$, a non-significant main effect of Political Alignment, $F(1, 93) = 1.412$, $p = .238$, $\eta_p^2 = .015$, and non-significant interaction, $F(1, 93) = 0.002$, $p = .965$, $\eta_p^2 < .001$. While we did observe a significant effect of Reactance, $F(1, 93) = 26.735$, $p < .001$, $\eta_p^2 = .223$, it did not alter the clarity of the results of any of the main analyses. This was also true for the Symbolic-Realistic Threat measure where we found a non-significant main effect of Threat, $F(1, 93) = 1.450$, $p = .232$, $\eta_p^2 = .015$, a *significant* effect of Political Alignment, $F(1, 93) = 29.624$, $p < .001$, $\eta_p^2 = .242$, and non-significant interaction, $F(1, 93) = 0.629$, $p = .420$, $\eta_p^2 = .007$, even though Reactance was significant, $F(1, 93) = 16.947$, $p < .001$, $\eta_p^2 = .154$.

3.5.5 Discussion

The non-significant main effect of Threat for each type of threat measure indicates that the threat manipulation was not successful in inducing high or low threat in the target group, despite being as direct of a replication of a successful manipulation within the literature as we could manage without having the original manipulation materials. In addition,

participants expressing more Reactance did also express more General Threat and more Symbolic-Realistic Threat, but entering reactance as a covariate did not clarify the findings.

Overall, the non-significant interactions indicate that we cannot interpret the pattern of responses with any certainty. However, a visualization of the pattern of responses between Republicans and Democrats is interesting to note between studies. The pattern for the editorial manipulation in this experiment (3a) was different from Experiment 1 using the same editorial manipulation and was different from Experiments 2a and 2b using the stereotype scale manipulation. In the current experiment, Republicans and Democrats both expressed equal levels of perceived threat in the High Threat and Low Threat conditions. In Experiment 1, the same editorial manipulation produced a pattern in which Republicans expressed *more* threat in the High Threat condition while Democrats expressed *less* threat in the High Threat compared to Low Threat condition. Due to these inconsistent results, we piloted the manipulation a third time to identify which pattern of results would replicate.

3.6 Experiment 3b: Editorial Threat Manipulation (Replication of Experiment 3a)

We re-ran the threat editorial threat manipulation as an exact replication of Experiment 3a to see which pattern would be replicated.

3.6.1 Participants and Design

We recruited 109 participants for this experiment, data collection October 2018, and removed 4 participants who had misalignment between political ideology and political group alignment, leaving 105 participants. There were 45 Republicans and 60 Democrats, which 35.2% Conservative, 43.8% Liberal, and 21.0% Moderate. There were approximately equal numbers between the High Threat (25 Republicans, 28 Democrats) and Low Threat conditions (20 Republicans, 32 Democrats). Participants were between the ages of 18 and 74 (M = 37.78, SD = 13.32), and were 53.3% Females, 46.7% were Males. Once again, we used

a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) between participants design with General Threat as the dependent variable.

3.6.2 Materials and Procedure

All Materials and Procedure were the same as Experiment 3a.

3.6.3 Results

Threat Manipulation. There were two different measures of threat included in this experiment, General Threat and Symbolic and Realistic threat from outgroups. All items were also averaged together to form a combined measure of Total Threat. A 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANOVA was conducted on each threat measure to test the efficacy of the threat manipulation. For the General Threat measure, we observed a non-significant main effect of Threat, $F(1, 101) = 0.0002$, $p = .965$, $\eta_p^2 < .001$, a non-significant effect of Political Alignment, $F(1, 101) = 0.058$, $p = .811$, $\eta_p^2 = .001$, and non-significant interaction, $F(1, 101) = 2.667$, $p = .106$, $\eta_p^2 = .026$. For the Symbolic-Realistic Threat measure, we observed a non-significant main effect of Threat, $F(1, 101) = 0.374$, $p = .542$, $\eta_p^2 = .004$, a *significant* effect of Political Alignment, $F(1, 101) = 14.226$, $p < .001$, $\eta_p^2 = .123$, and non-significant interaction, $F(1, 101) = 0.258$, $p = .612$, $\eta_p^2 = .003$. For the Total Threat measure, we observed a non-significant main effect of Threat, $F(1, 101) = 0.139$, $p = .710$, $\eta_p^2 = .001$, a *significant* effect of Political Alignment, $F(1, 101) = 5.209$, $p = .025$, $\eta_p^2 = .049$, and non-significant interaction, $F(1, 101) = 1.374$, $p = .244$, $\eta_p^2 = .013$; see Figures 17, 18, 19.

Figure 17

Threat by Political Alignment (Republican/Democrat) on General Threat Measure

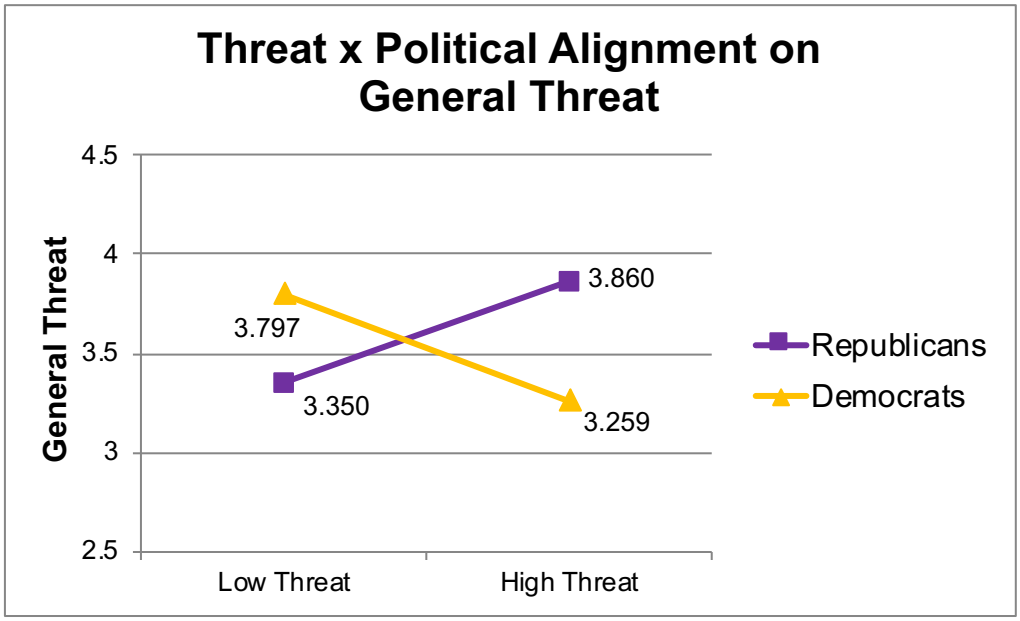


Figure 18

Threat by Political Alignment (Republican/Democrat) on Realistic and Symbolic Threat Measure

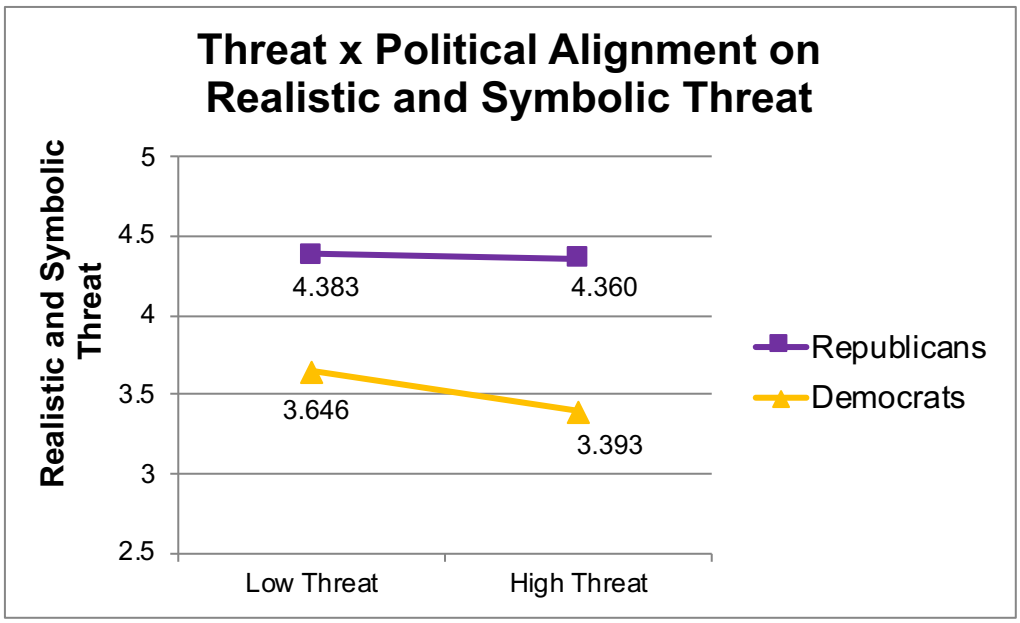
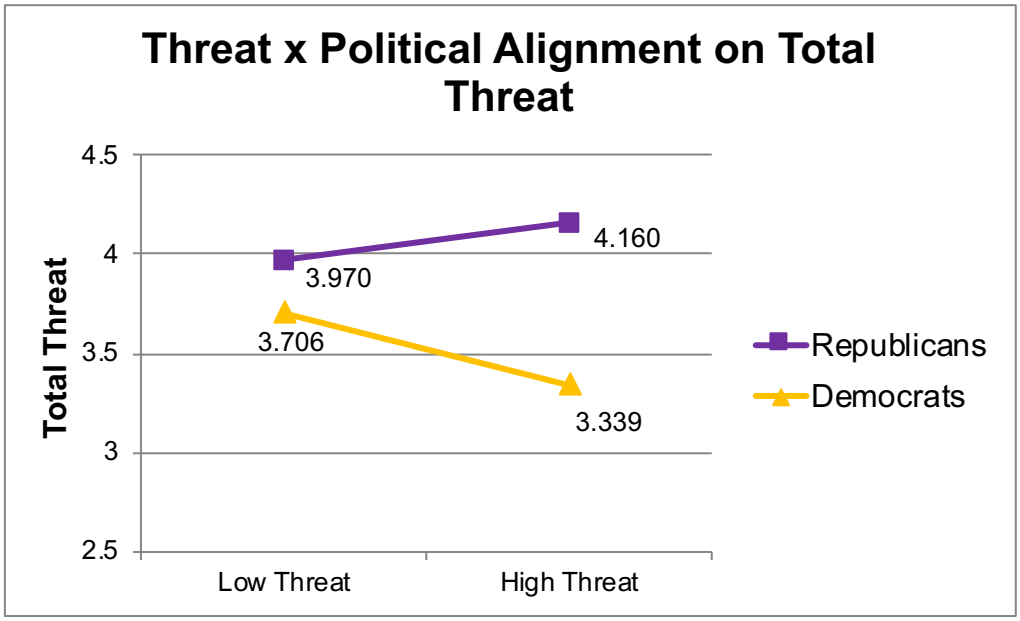


Figure 19

Threat by Political Alignment (Republican/Democrat) on Total Threat Measure



Note: Total threat computed as mean of all General and Realistic and Symbolic Threat items.

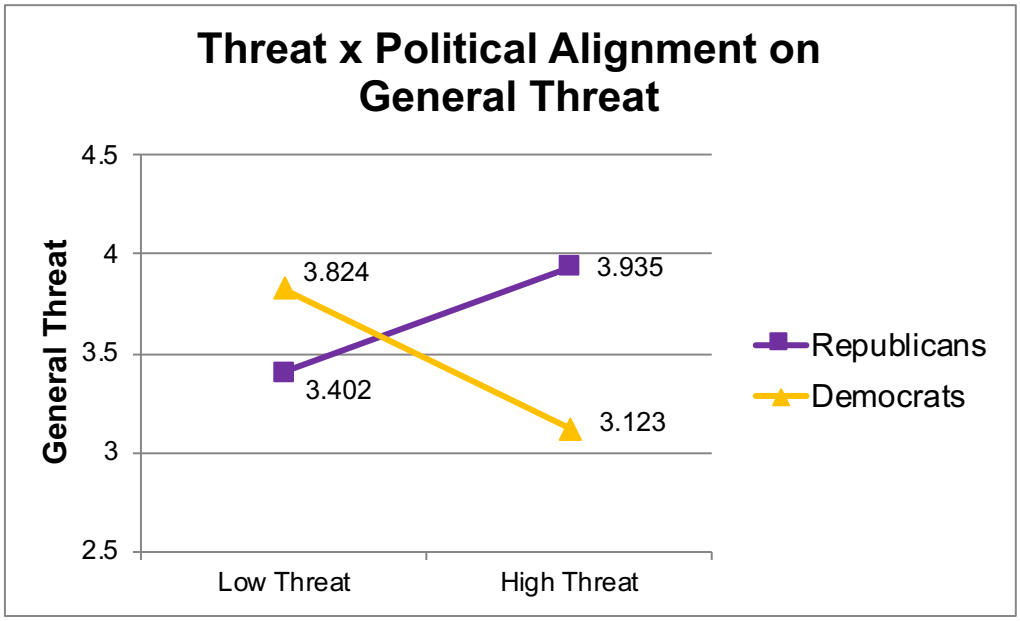
Once again, it is worth reviewing the pattern of results even though the interactions for all three measures were not significant. As seen in Figures above, for General Threat, the interaction replicated the pattern of the first editorial pilot study, with Republicans showing more threat in the High Threat (M = 3.86, SD = 1.69) than the Low Threat Condition (M = 3.35, SD = 1.53). Democrats showed the opposite pattern with less threat indicated in the High Threat (M = 3.26, SD = 1.60) than the Low Threat condition (M = 3.80, SD = 1.64). This pattern of results was replicated for the Total Threat measure, but not for the Symbolic-Realistic Threat measure where the difference was for Republicans who showed equivalent levels of threat in the High Threat condition (M = 4.36, SD = 1.04) and the Low Threat condition (M = 3.38, SD = 0.79).

Reactance. We once again conducted an independent samples t-test on Reactance scores. Results indicated a higher reactance score in Democrats (M = 4.07, SD = 0.81) than Republicans (M = 3.88, SD = 1.13), but this difference was not significant, $t(103) = -0.985$, $p = .327$.

As a result, we re-ran the 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANCOVA on General Threat. For the General Threat measure, we observed a non-significant main effect of Threat, $F(1, 100) = 0.077$, $p = .781$, $\eta_p^2 = .001$, a non-significant main effect of Political Alignment, $F(1, 100) = 0.416$, $p = .521$, $\eta_p^2 = .004$, but a *significant* interaction, $F(1, 100) = 4.188$, $p = .043$, $\eta_p^2 = .043$. Unlike Experiment 3a, Reactance did clarify the findings by allowing us to see the significant Threat x Political Alignment interaction (see Figure 20).

Figure 20

Threat by Political Alignment (Republican/Democrat) on General Threat Measure



Note: Threat (High/Low) x Political Alignment (Republican Democrat) on General Threat measure with Reactance as a Covariate.

In contrast to Experiment 3a, we replicated the pattern observed in Experiment 1 in which Republicans expressed *more* threat in the High Threat condition, whereas Democrats expressed *less* threat in the High Threat condition in comparison to the low threat condition. This clarification of the interaction by the Reactance covariate, however, was not observed for Symbolic-Realistic Threat measure. While Reactance was significant, $F(1, 100) = 12.616$, $p < .001$, $\eta_p^2 = .112$, the Threat x Political Alignment interaction remained non-significant, $F(1, 100) = 0.667$, $p = .416$, $\eta_p^2 = .007$. Republicans still showed equal levels of perceived threat in both threat conditions while Democrats still showed *less* threat in the High Threat condition.

3.6.4 Discussion

Results of the ANOVA and ANCOVA analyses indicate that, overall, the threat manipulation was not successful in eliciting different levels of threat when collapsing across political groups. When accounting for reactance scores, however, in two of the three Editorial Threat manipulations, one pattern emerged for the General Threat measure. In Experiments 1 and 3b, Republicans expressed *more* threat in the High Threat condition while Democrats expressed *less* threat in the High Threat condition compared to the Low Threat condition. While this is somewhat counter to our expectations in regard to Democrats, the finding for Republican participants was in agreement with the literature.

Furthermore, Republicans and Democrats responded differently to editorial threat manipulation in comparison to the stereotype scale manipulation (Experiments 2a and 2b). Importantly, both the Threat main effect and the Threat x Political Alignment interaction were not significant for the Stereotype Scale manipulation experiments. Thus we focused more on the Editorial manipulation, which was more promising, but only for Republicans who were the only group to express more perceived threat following the High Threat manipulation. Due to these inconsistent findings, we designed and tested a third type of threat manipulation.

3.7 Experiment 4: Threat Scale Manipulation

In Experiment 4, we set out to test a third threat manipulation using the full Stephan, Ybarra, & Bachman (1999) 15-item threat from immigrants scale as the high threat manipulation. The difficulty has been adapting this measure to create a control condition, since it was designed to measure specific domains of threat from immigrants. To accomplish this goal, we made the target group mentioned in the scale to be Americans or American society instead of the immigrant target group within the original scale. Given that all

participants were Americans, the American target group should be a group that would not elicit perceived threat.

The format of this scale threat manipulation is based on precedent of the manipulation used by Morrison and Ybarra (2008), but with the novel use of Stephan, Ybarra, & Bachman (1999) 15-time threat from immigrants scale. Morrison and Ybarra (2008) utilized six items from a Negative Attitudes towards Asians scale, and six negative stereotypes towards Asians as the control condition. Our manipulation uses the entire 15-item Threat from Immigrants scale (Stephan et al., 1999) as the high threat condition, and an adapted neutral form of the same questionnaire for the low threat condition.

3.7.1 Participants and Design

Participants. We recruited 137 Republicans and Democrats from Prolific.co, data collection August 2019, and removed six participants who indicated misalignment between their Political Alignment and Political Ideology measures, leaving 131 participants. There were 62 Republicans and 69 Democrats of whom were 42.7% Conservative, 48.1% Liberal, and 9.2% Moderate. There were approximately equal numbers of each in the High Threat (28 Republicans, 33 Democrats) and Low Threat conditions (34 Republicans, 36 Democrats). Participants were between the ages of 18 and 69 (M = 31.44, SD = 10.83), with 75.6% being White, and the remaining 24.4% were of the following ethnicities: 3.8% Southeast Asian, 5.3% Black, 0.8% Native American, 0.8% Pacific Islander, 6.9% Latino or Hispanic, and 6.9% other. Of the participants, 48.9% were Female, 51.1% were Male. Once again, we used a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) between participants design with General Threat as the dependent variable.

3.7.2 Materials

Perceived Threat. We used the same measures of General Threat and Symbolic-Realistic Threat that we had used in previous experiments.

General Threat. All four items were averaged for one General threat score (M = 3.48, SD = 1.76, α = .913; See Appendix J).

Symbolic and Realistic Threat from Outgroups. All six items were averaged to form one score of symbolic and realistic threat (M = 3.68, SD=1.46, α=.895; see Appendix K).

Total threat. All items from the general threat measure and symbolic and realistic threat measure were averaged together for one total threat score to be used in analyses (M = 3.60, SD = 1.38, α=.92).

Scale Manipulation - High Threat. For the high threat condition, we utilized Stephan, Ybarra, & Bachman (1999) 15-item threat from immigrants scale, which has consistently shown to be related to threat (See Appendix P for the full measure).

Scale Manipulation - Low Threat. In an attempt to address a weakness of previous threat manipulations, we altered the 15-item threat from immigrants scale to be neutral. Some sample items are “American culture is overall similar across different businesses” and “Most Americans have a value and belief system regarding work.” See Appendix P for the full measure.

Filler task. For the filler task, we used the same Need for Cognition items as the previous experiments (see Appendix C).

Political Affiliation. We used the same Political Alignment and Political Ideology measures as the previous experiments.

Memory Questions. As part of the attention and memory cover story, participants answered six questions about the content of the Opinion Survey that they had completed (see Appendix L).

3.7.3 Procedure

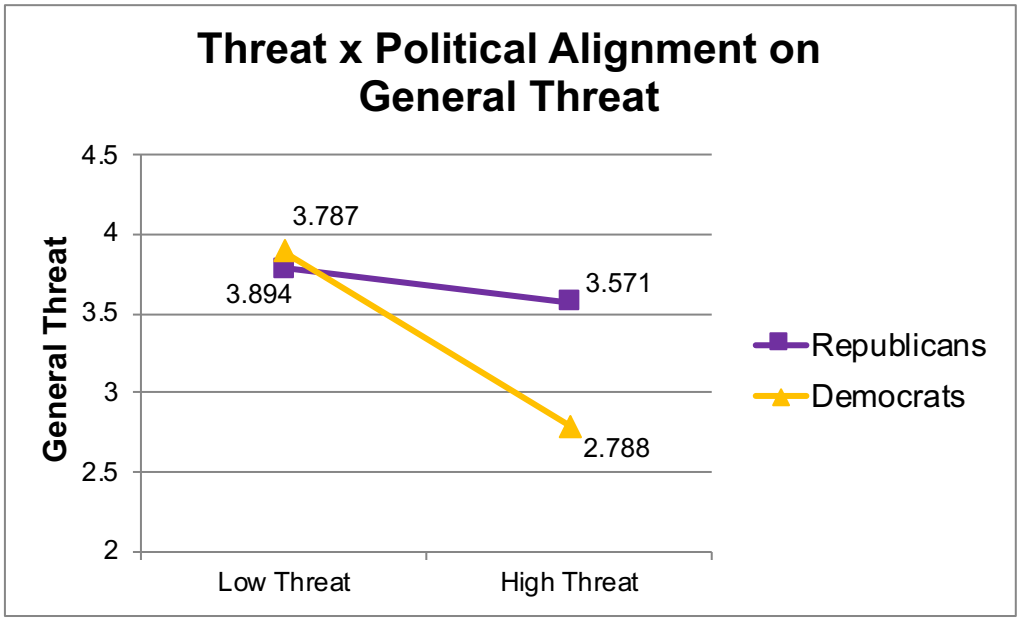
With the exception of the High and Low Threat manipulation, we used the same procedure as Experiments 3a and 3b, without including a measure of Reactance due to the small influence found in the previous study.

3.7.4 Results

In order to test our threat manipulation, a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANOVA was conducted on General Threat. For the General Threat measure, we observed a *significant* main effect of Threat, $F(1, 127) = 4.773$, $p = .031$, $\eta_p^2 = .036$, a non-significant effect of Political Alignment, $F(1, 127) = 1.240$, $p = .268$, $\eta_p^2 = .010$, and non-significant interaction, $F(1, 127) = 2.172$, $p = .143$, $\eta_p^2 = .017$ (see Figure 21). While the Threat manipulation was significant in this experiment, it was once again, in the opposite direction we had intended and expected. Republicans showed equivalent levels of threat in the High Threat ($M = 3.57$, $SD = 1.69$) and the Low Threat Conditions ($M = 3.79$, $SD = 1.70$) while Democrats showed the opposite pattern with less threat expressed in the High Threat ($M = 2.79$, $SD = 1.76$) than in the Low Threat condition ($M = 3.89$, $SD = 1.75$). This pattern of results continues to be baffling and inconsistent with the threat literature and the literature on reactance. Unfortunately, we failed to include in the reactance measures in the experiments using this manipulation, though the reasoning was because including reactance as a covariate did not reveal a successful manipulation of threat in Experiments 3a and 3b.

Figure 21

Threat by Political Alignment (Republican/Democrat) on General Threat Measure



For the Symbolic-Realistic Threat measure, we observed a non-significant main effect of Threat, $F(1, 127) = 2.657$, $p = .106$, $\eta_p^2 = .020$, a *significant* effect of Political Alignment, $F(1, 127) = 31.090$, $p < .001$, $\eta_p^2 = .197$, and non-significant interaction, $F(1, 127) = 0.962$, $p = .329$, $\eta_p^2 = .008$. For the Total Threat measure, we observed a *significant* main effect of Threat, $F(1, 127) = 5.015$, $p = .027$, $\eta_p^2 = .038$, a *significant* effect of Political Alignment, $F(1, 127) = 24.24$, $p < .001$, $\eta_p^2 = .106$, and non-significant interaction, $F(1, 127) = 2.134$, $p = .146$, $\eta_p^2 = .017$; see Figures 22 and 23. The pattern of results for Symbolic-Realistic Threat and Total Threat were similar to those of General Threat.

Figure 22

Threat by Political Alignment (Republican/Democrat) on Realistic and Symbolic Threat Measure

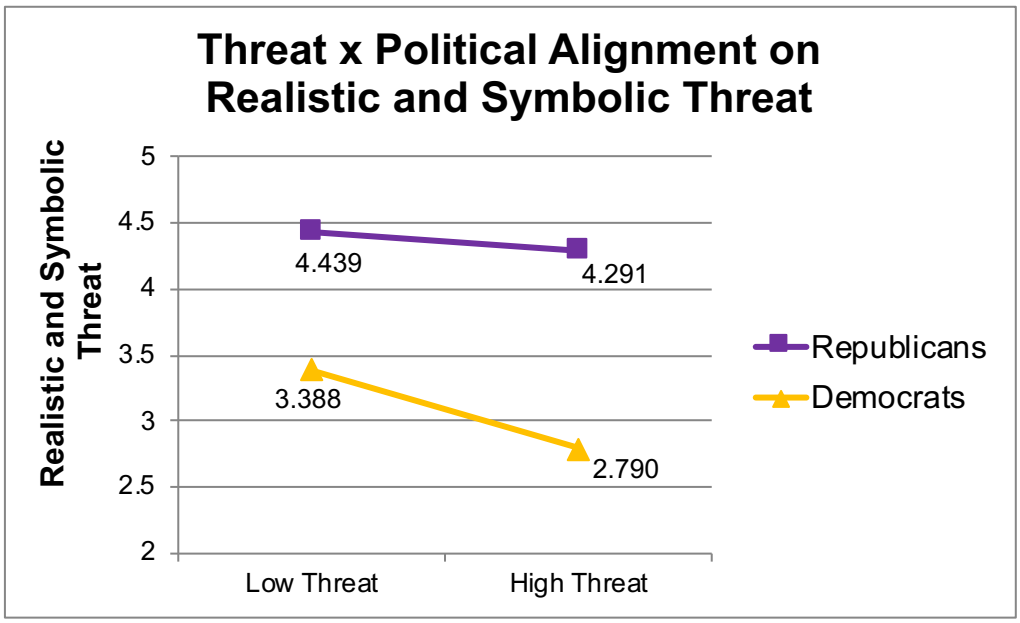
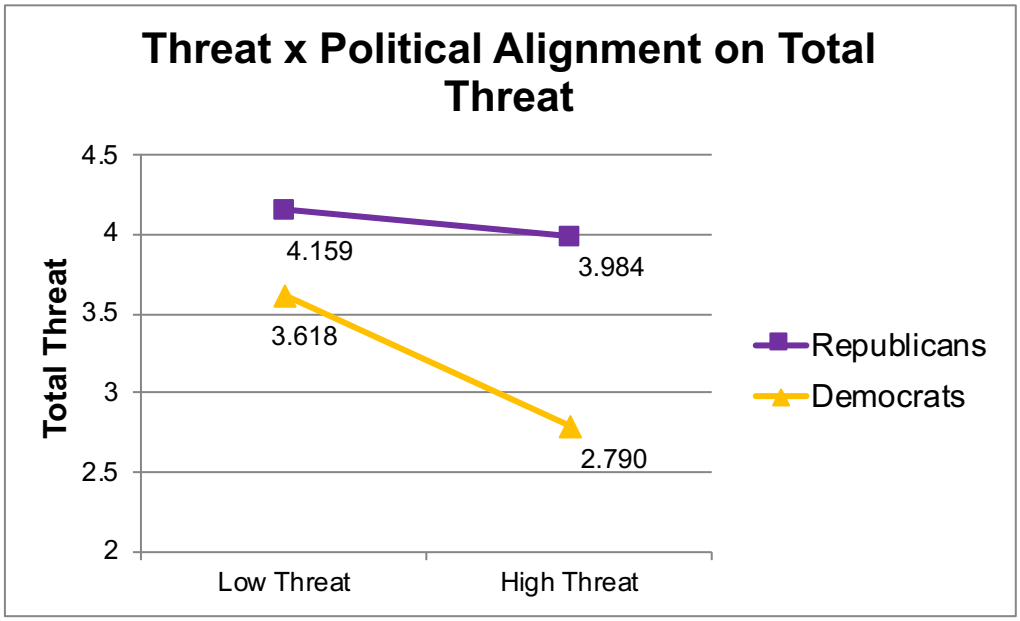


Figure 23

Threat by Political Alignment (Republican/Democrat) on Total Threat Measure

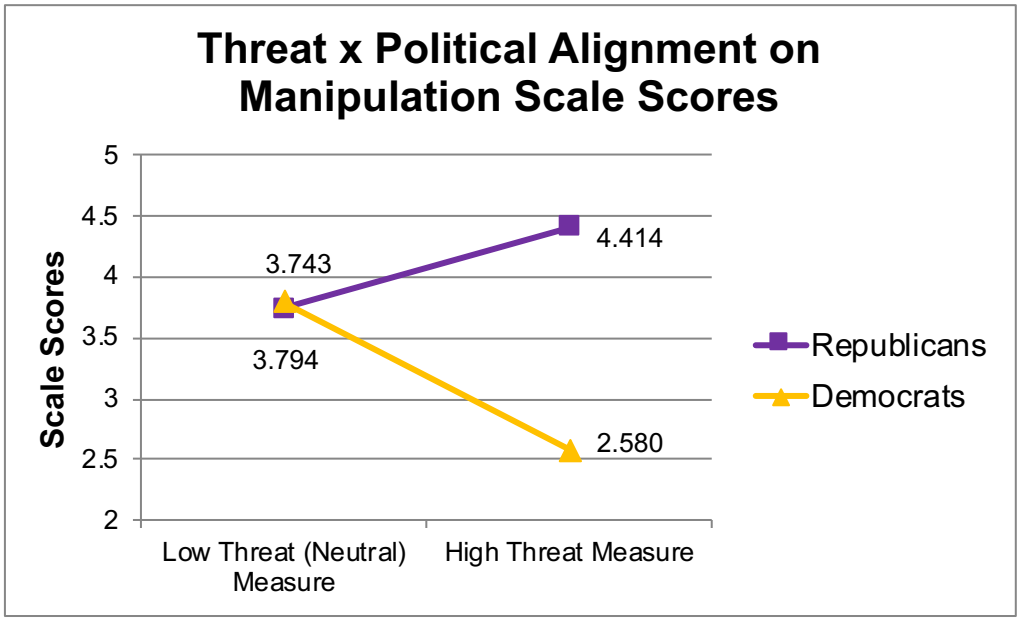


Note: Total Threat computed as mean of all General Threat and Symbolic and Realistic Threat items.

With the odd results of the threat manipulation, we decided to examine the scores on the scales used in the manipulation to determine whether there were any differences between the scale scores in the High Threat and Low Threat conditions. This analysis would function as a manipulation check of whether participants were responding as expected to the manipulation. We conducted a 2 (Threat: High/Low) x 2 (Political Alignment: Republican/Democrat) ANOVA on the scores of the scale items used in the manipulation. Results indicated a non-significant main effect of Threat, $F(1, 127) = 3.593$, $p = .060$, $\eta_p^2 = .028$, a *significant* effect of Political Alignment, $F(1, 127) = 38.678$, $p < .001$, $\eta_p^2 = .233$, but a *significant* interaction, $F(1, 127) = 43.258$, $p < .001$, $\eta_p^2 = .254$ (see Figure 24). Republicans expressed *more* threat in the High Threat ($M = 4.414$, $SD = 1.075$) than in the Low Threat Condition ($M = 3.74$, $SD = 0.26$) while Democrats expressed the opposite pattern with *less* threat in the High Threat ($M = 2.58$, $SD = 1.22$) than in the Low Threat condition ($M = 3.79$, $SD = 0.33$). This is the same pattern that we observed in the two of the three Editorial Threat experiments (Experiment 1 and 3b). Given that the scale scores acted as a manipulation check and that the pattern of results were similar to the editorial manipulation, it is possible that the General Threat dependent measure may have been too explicit, which could have reduced the possibility of seeing the effects of the manipulation. This idea will be tested more fully in Experiment 5 by using the motive asymmetry measure.

Figure 24

Threat by Political Alignment (Republican/Democrat) on Manipulation Scale Scores



Simple Slopes for Republicans and Democrats. We conducted a simple slopes analysis on the scale scores for Republicans, $n = 62$ with 34 in the low threat condition and 28 in the high threat condition. We found a significant Threat effect ($p = .001$, $\eta_p^2 = .172$). Again, there were significantly higher scores in High Threat ($M = 4.41$, $SD = 1.08$) condition than the Low Threat condition than the Low Threat condition ($M = 3.74$, $SD = 0.26$). The simple slopes analysis on the scale scores for Democrats also found a significant Threat effect, ($p < .001$, $\eta_p^2 = .331$). Again, Democrats responded with *less* threat in the High Threat ($M = 2.58$, $SD = 1.22$) than in the Low Threat condition ($M = 3.79$, $SD = 0.33$).

3.7.5 Discussion

Overall, the Threat Scale manipulation produced results similar to those of the Editorial Threat manipulation (Experiments 1 and 3b) in which there was a non-significant effect of threat on Symbolic-Realistic threat, but a significant, though small effect ($\eta_p^2 = .036$)

of threat on General Threat. In Experiment 1 the Threat x Political Alignment interaction was significant, and this interaction was also significant in Experiment 3b, but only with Reactance as a covariate. In both these experiments, Republicans showed more threat in the High Threat condition while Democrats showed less threat in the High Threat condition. We did not replicate this finding with the Threat Scale manipulation, at least not with the General Threat measure in Experiment 4. For this measure, the Threat x Political Alignment interaction was not significant and the pattern did no match. In this case, Republicans responded with equivalent threat while Democrats responded with less perceived threat in the High Threat condition compared to the Low Threat condition.

When we examined the actual scores on the threat scale, which is essentially a manipulation check, we did observe the same pattern as Experiment 1 and 3b. For this check, Republicans reported more threat in their scale answers in the High Threat Condition in comparison to the Low Threat condition while Democrats reported less threat in the High Threat condition.

Results of this third manipulation indicate it was successful in manipulating perceived threat on the scale items for a Conservative subset of the sample, but that this effect did not translate to the main dependent measure of General Threat. Again, the Democratic subsample indicated the opposite response pattern. Considering the topic of this threat manipulation, it is possible that the Democrats' responses are a reflection of their clinging to the values of the prototypical Democrat. E.g., if immigrants should be welcomed into the country, it would make sense for them to not be threatening. This would help explain the response pattern of the Democrats to the third manipulation. Given that the manipulation check showed that the manipulation was acting as expected for Republicans, we decided to proceed with further testing. As one purpose of developing this threat manipulation was to see if a novel

manipulation could be done, we continued with the scale manipulation instead of the editorial manipulation that was slightly more successful with the Republican participants subset. Instead of using the very explicit General Threat dependent measure, we decided to use the Motive Asymmetry Bias measure from Chapter 2. It is likely that the Motive measure may be less clearly linked to threat, which may allow us to see the influence of the Threat Scale manipulation. At the time of conducting these experiments, we did not have access to an implicit measure of threat, which would need to be developed and pilot tested.

Part 2: Manipulated Threat on the Motive Bias

3.8 Experiment 5a: Threat Scale Manipulation on Motive Preference

Given that both the Editorial Threat manipulation and the Threat Scale manipulation showed signs of being effective with a Republican sample, we had to make a choice between these two partially successful manipulations. Either choice had strengths, but in the end, we decided to re-test the Threat Scale manipulation on a Republican sample and on the Motive Asymmetry Bias dependent measure from Chapter 2, which had been the measure we had been working towards using all along. We were interested if, and in what way, manipulated threat influences the Motive Asymmetry Bias and we used the Threat Scale manipulation from Experiment 4. In addition, we conducted this experiment on a sample of Americans who identify as Politically Conservative given the manipulations showing effectiveness with only this sample. When considering the motives of the ingroup and the outgroup, it is important to examine both how the ingroup perceives its own motives, and how the ingroup perceives the outgroup's motives, which the Motive Asymmetry Bias measure allows us to do.

3.8.1 Hypotheses

Motive Asymmetry Bias. Based upon the findings from Waytz et al. (2014) and from those of Chapter 2, we hypothesized that we would find the same Motive Asymmetry Bias

when examining participants' scores on the Love and Hate Composite scales. When explaining why the Other group causes conflict, participants would see the Other group as driven more by hate for our group than for kindness toward their group. When explaining the why our Own group causes conflict, participants in that condition would see their Own group as drive more by kindness towards their own group than hate for the other group.

Explanations for the Influence of Threat: Negativity Bias, Group Threat Effect, or a Combination Effect. In Chapter 2, we tested two explanations for the influence of threat: The Negativity Bias and the Group Threat Effect. We used Motive Preference (i.e., Love ratings minus Hate ratings on motives) as the dependent measure, and had Party Focus (rating Own group/Other group motives) as the between participants factor and Perceived Threat as the continuous measure. A positive Motive Preference indicates that ratings of love and kindness were greater than ratings of hate for the group's motives, while a negative Motive Preference would indicate that ratings of hate were greater. In two, quasi-experimental studies in Chapter 2, we observed support for neither of the proposed explanations. Instead, we observed a combination of the two explanations in which a more negative motive bias (higher ratings of hate than love) was related to higher perceived threat in comparison to lower perceived threat, but only for the ratings of the Other group's motives. For ratings of one's Own group, perceived threat was not significantly associated with ratings; Own group ratings were equally positive as threat increased. In Experiment 5, we wanted to test each of these three explanations: Combination Effect, Group Threat Effect, or a Negativity Bias, but with manipulated threat instead of the measured threat variable used in Chapter 2. Thus, we used a 2 (Party Focus: Own group/Other group) x 2 (Threat: High/Low) between participants design on the Motive Preference (i.e., Love ratings minus Hate ratings on motives) dependent measure.

Negativity Bias. The Negativity Bias explanation is based upon the Phobia literature and we hypothesized that participants' Motive Preference ratings would be more negative in the high threat than low threat condition regardless of ingroup or outgroup focus (i.e., Party Focus). Within the Own Group condition, the ratings of the motives of one's own group would be positive, but would be less positive in the high threat condition compared to the low threat condition. Within the Other Group condition, the ratings would be negative, but would be more negative in the high threat condition. Essentially, high threat would cause ratings to be more negative for both Own group and Other group conditions, hence, the negativity bias terminology.

Group Threat Effect. Based upon the intergroup threat literature, we hypothesized that the difference between participants' Motive Preference ratings would be greater in the high threat as compared to low threat condition and this would be observed for ratings of the Other group and the Own group. Essentially, high threat would cause the Other group to be rated more negatively while the Own group would be rated more positively under high threat compared to low threat (i.e., more ingroup bias under threat).

Combination Effect. Considering the results of our quasi-experimental designs in Chapter 2, as explained briefly earlier, we included a third possible explanation to test in these experiments. We hypothesized that the difference between participants' Motive Preference ratings would increase in a high threat condition (more ingroup bias under threat), and this difference would be viewed only through a change in ratings of the Other group. High threat would cause the Other group to be rated more negatively, and have no significant impact on the Own group ratings.

3.8.2 Participants and Design

Participants. We recruited 97 participants via Prolific.co for monetary compensation, data collection November 2019. Despite parameters set to ensure only participants who are affiliated with the Republican party participated, we had some misalignment on political affiliation. We removed 6 Republican participants who indicated they were Liberal within the Political Ideology ratings or said they were a member of the Democratic party, leaving 91 participants whom 14.3% were Extremely Conservative, 71.5% were Conservative, and 14.3% Moderate. There were approximately equal numbers in the High Threat (n = 42) and Low Threat conditions (n = 49), as well as in the Own Party Focus (n = 44) and Other Party Focus conditions (n = 47). Participants were between the ages of 18 and 69 (M = 36.86, SD = 14.38) where 87.9% were White, and the remaining 12.1% were of the following ethnicities: 2.2% Southeast Asian, 1.1% Black, 5.5% Latino or Hispanic, and 3.3% other. Of the participants, 42.9% were Female, 57.1% were Male. We used a 2 (Party Focus: Own/Other) x 2 (Threat: High/Low) between subjects design with Motive Preference as the dependent variable.

3.8.3 Materials

Threat Scale Manipulation. We used the threat scale manipulation from Experiment 4 (see Appendix P).

High threat. Participants in the high threat condition completed Stephan, Ybarra, & Bachman (1999) 15-item Threat from Immigrants scale, which has been correlated with threat in previous studies.

Low threat. Participants in the low threat condition completed an adapted neutral form of Stephan, Ybarra, & Bachman (1999) scale in which the focus was changed from

immigrants to Americans in order to keep the conditions as similar as possible. Both included a mixture of negatively and positively worded items.

Motive Preference: Love Composite Score. Three items assessing positive motivations for being in conflict (empathy, compassion, kindness) on a 7-point Likert scale of (1) *Not at all* to (7) *Very Much* were averaged for a mean Love score. For those in the Own Party condition, the questions were formatted such as "When your party engages in conflict, how much is your party motivated by empathy towards your political party?" For those in the Other Party condition, the questions were formatted such as "When the other party engages in conflict, how much is their party motivated by empathy towards their political party?" All items were averaged for one Love composite score (M = 4.79, SD = 1.42).

Motive Preference: Hate Composite Score. Three items assessing negative motivations for being in conflict (hatred, dislike, disdain) on a 7-point Likert scale of (1) *Not at all* to (7) *Very Much* were averaged for a mean Hate score. For those in the own party condition, the questions were formatted such as "When your party engages in conflict, how much is your party motivated by hatred towards the other party?" For those in the other party condition, the questions were formatted such as "When the other party engages in conflict, how much is their party motivated by hatred towards your political party?" All items were averaged for one Hate composite score (M = 4.80, SD = 1.42).

Motive Preference. As in previous studies, Motive Preference was a compilation of each participants' Love and Hate score. The mean overall Hate score was subtracted from the mean overall Love score to form one overall Motive Preference score (M = -0.01, SD = 2.39). A higher score indicates a preference for positive motivations for the group causing conflict, as opposed to negative motivations for causing conflict, hate. All items for the Love and Hate

composite scores are included in Appendix B and are the same ones used in the studies in Chapter 2.

Filler Task. Participants completed same 4 filler questions as we had used in Experiments 1, 3a, 3b, and 4; These were four items from Cacioppo et al. (1984) Need for Cognition scale that were unrelated to threat or political ideology (see Appendix C).

Political Affiliation. We used the same two items to measure political affiliation as we had done in Chapter 2 and in Experiments 1 through 4 in Chapter 3. The measure of Political Ideology was on a 7-point Likert scale from (1) *Extremely Liberal* at the top to (7) *Extremely Conservative* at the bottom (M = 5.57, SD = 0.909; see Appendix D).

Memory Questions. As part of the attention and memory cover story, participants again answered the same six questions as Experiment 4 about the content of the Opinion Survey that they had completed (see Appendix L).

3.8.4 Procedure

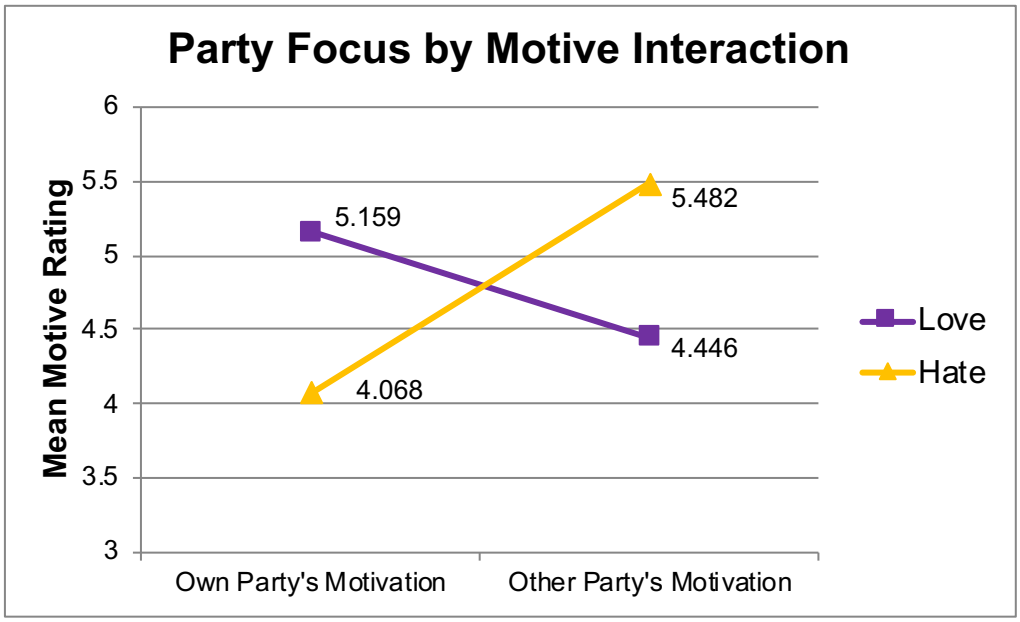
Participants were recruited via Prolific.co, an online research platform, for monetary compensation. We set parameters through the Prolific website to ensure that all participants identified as part of the Republican party and that no participants had completed a similar survey. Once recruited, participants gave informed consent and were redirected to an external survey site. Participants provided demographic information including gender, race, age, country of residence, and Political Ideology. They then completed two of the need for cognition filler items and then were randomly assigned to a high or low threat condition and completed the corresponding materials. After completing two more filler items, participants then completed the motive preference items, memory control items, a final measure of Political Alignment, were then debriefed and thanked for their time.

3.8.5 Results

Motive Bias. Data were first analysed to examine whether they replicated the Motive Bias findings in Waytz et al. (2014), and our previous studies on the motive bias in Chapter 2. A 2 (Party Focus: Own/Other) x 2 (Motive: Love/Hate) mixed model ANOVA with Motive as the within-participants factor revealed a significant interaction, $F(1, 89) = 22.129$, $p < .001$, $\eta_p^2 = .199$ (see Figure 25), which replicates both our previous findings and Waytz et al. (2014). The data consistently show that participants attribute more positive motives than negative motives as the ingroup's reason for causing conflict, and attribute more negative motives than positive motives as the outgroup's reason for causing conflict.

Figure 25

Visual Representation of the Motive Bias, Experiment 5a



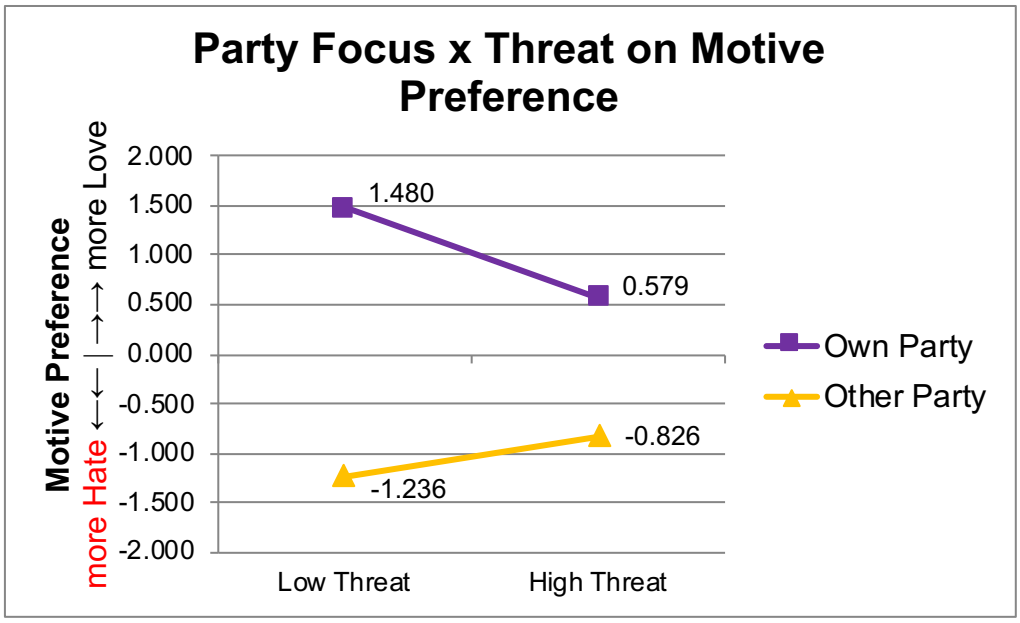
Note: Party Focus (Own, Other) by Motive rating (Love, Hate) Interaction with Motive as a within-participants factor. Significant interaction, $p < .001$, $\eta_p^2 = .199$

Perceived Threat on Motive Preference. To test the influence of the Party Focus and threat manipulations, we computed the Motive Preference score (Positivity ratings minus Negativity ratings) as we had done in Chapter 2. We then conducted a 2 (Party Focus: Own/Others) x 2 (Threat: High/Low) between participants ANOVA on Motive Preference as the outcome variable. Data revealed a significant main effect of Party Focus, $F(1,87) = 20.650$, $p < .001$, $\eta_p^2 = .192$, a non-significant effect of Threat, $F(1,87) = 0.293$, $p = .590$, $\eta_p^2 = .003$, and a non-significant interaction, $F(1,87) = 2.090$, $p = .152$, $\eta_p^2 = .023$ (see Figure 26). Results indicate neither a negativity bias nor a group threat effect and is supportive of neither hypothesis 2 nor 3. While the interaction was non-significant and it cannot be interpreted, the pattern is different from the Combination Effect pattern that we saw in Chapter 2. In the Combination Effect pattern, measured Threat was not associated with ratings in the Own party condition, but was associated with ratings in the Other party condition. For the Other party, higher perceived threat was related to more negative ratings. In this experiment with manipulated Threat, we observed the opposite pattern for Other party condition in which the trend was for less negative ratings in the High Threat condition. Of course, these are non-significant trends, but they are trends in the wrong directions for the Other party condition. The trend for the Own party condition is in line with a Negativity Bias interpretation, but the simple slope for the Own party is non-significant, $p = .118$, $\eta_p^2 = .057$, though it was a medium sized effect. For the current data, it is also possible to conduct a MANOVA, though the interpretation of the separate graphs for Love and Hate scores makes this analysis less useful (Love and Hate Graphs included in Appendix Q). The MANOVA, however, does produce nearly identical results, and it finds a significant effect of Party Focus, $F(2,86) = 11.242$, $p < .001$, $\eta_p^2 = .207$, a non-significant effect of Threat, $F(2,86) = 0.959$, $p =$

.387, η_p^2 = .022, and a non-significant Party x Threat interaction, $F(2,86) = 1.035$, p = .360, η_p^2 = .023.

Figure 26

Party Focus (Own, Other) by Threat (High, Low) Interaction on Motive Preference



3.8.6 Discussion

We examined the individual motive composite scores for love and hate to test whether the Motive Bias was observed in this sample. The significant interaction of these motives, $p <$ .001, η_p^2 = .199, provided evidence of the Motive Bias in which Own party motives were ascribed more to love than hate, but the Other party's motives were ascribed more to hate than love. We next tested the influence of Party Focus and Threat on the Motive Preference index (love scores minus hate scores). We found a main effect of Party Focus (η_p^2=.192), but then found a non-significant main effect of Threat (η_p^2=.003) and non-significant interaction (η_p^2=.023), which did not replicate the findings of significant Party Focus x (measured) Threat

interactions in Study 1 (R^2 = .062) and Study 2 (R^2 = .054) of Chapter 2. In addition, not only was manipulated Threat and the Party x manipulated Threat interaction non-significant, but visualization of the interaction indicates that views of the Own party and Other party were more similar in the high threat condition than in low threat instead of the Other party ratings becoming more negative under High Threat compared to Low Threat. This trend is different than the patterns seen in previous studies on the Motive Preference.

The odd pattern of results, while non-significant, indicates that ratings between Own and Other party are more similar in the High than Low threat condition. Considering the timing of this study, there could be an outside explanation for these results. This study was conducted in December, and it is possible that the ratings for Other party were more positive due to the holiday season. Previous research indicates individuals are more positive and charitable overall during and around holiday seasons (Business Wire, 2010; Bunis et al., 1996), demonstrate increased tipping at the holidays (Greenberg, 2013), and individualists show increased giving around Christmas (Mueller & Rau, 2019). If so, in the high threat condition individuals may be more likely to view others in a more positive light. In contrast, the Threat manipulation may have been unsuccessful or it may have been as unsuccessful with the Motive dependent measure as it was with the General Threat measure. Whatever the reason, the results did not match all previous studies investigating Motive Preference. To clarify our findings and to test whether this pattern would be replicated outside of a holiday season, we re-ran the study with a second sample of American Republicans.

3.9 Experiment 5b: Threat Scale Manipulation on Motive Bias (Replication of Experiment 5a)

Due to the inconsistent results of the previous study, and potential confounds from the time the study was conducted, we ran the study again to confirm or reject our results of the

threat manipulation on motive preference. All materials and procedures in Experiment 5b were the same as Experiment 5a.

3.9.1 Participants and Design

Participants. We recruited 103 Republicans via Prolific.co for monetary compensation, data collection January 2020, and removed 8 Republican participants who indicated they were Liberal within the Political Ideology ratings or said they were a member of the Democratic party, leaving 95 participants whom 20.0% were Extremely Conservative, 72.7% were Conservative, and 7.4% Moderate. There were approximately equal numbers in the High Threat (n = 53) and Low Threat conditions (n = 42), as well as in the Own Party Focus (n = 45) and Other Party Focus conditions (n = 50). Participants were between the ages of 18 and 72 (M = 37.65, SD = 14.40) where 85.3% were White, and the remaining 14.7% were of the following ethnicities: 4.2% Black, 1.1% Indian, 1.1% Native American, 6.3% Latino or Hispanic, and 2.1% other. Of the participants, 48.4% were Female, 51.6% were Male. We again used a 2 (Party Focus: Own/Other) x 2 (Threat: High/Low) between subjects design with Motive Preference as the dependent variable.

3.9.2 Materials and Procedure

All materials, methods, and procedures were the same as those used in Experiment 5a. Parameters set in the Prolific website ensured that no participants who completed the previous experiment were eligible to participate in this replication experiment.

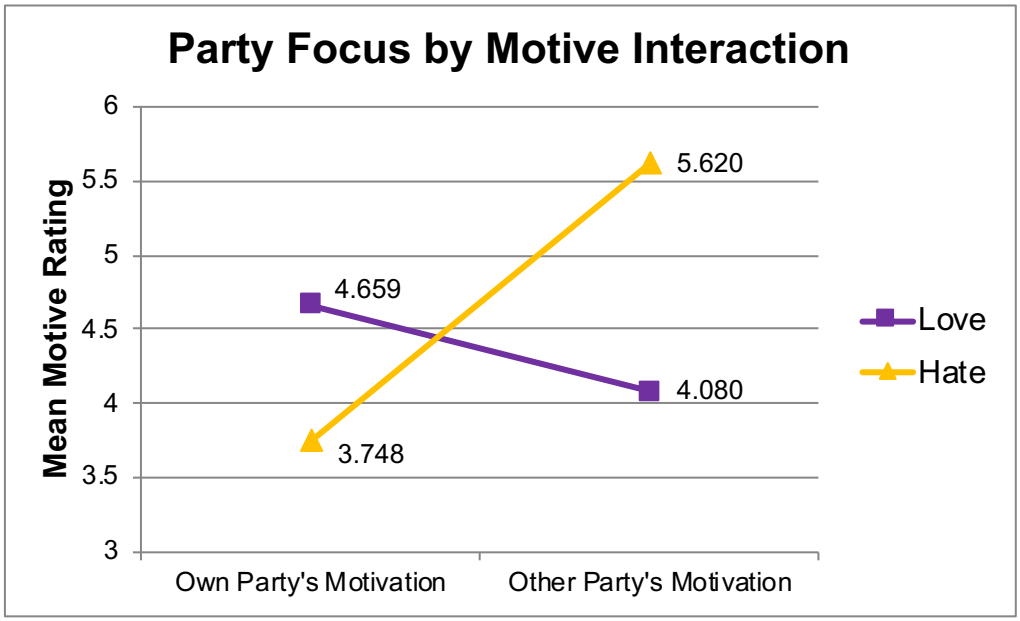
3.9.3 Results

Motive Bias. Data were first analysed to see if they replicated the Motive Bias findings of Waytz et al. (2014), the previous experiment, and the previous longitudinal studies from Chapter 2. A 2 (Party Focus: Own/Other) x 2 [Motive: Love/Hate] mixed model ANOVA with Motive as the within-participants factor revealed a significant interaction, F(1,

93) = 22.094, $p < .001$, $\eta_p^2 = .192$ (see figure 27), which replicates both our previous findings and those of Waytz et al. (2014).

Figure 27

Visual Representation of the Motive Bias, Experiment 5b



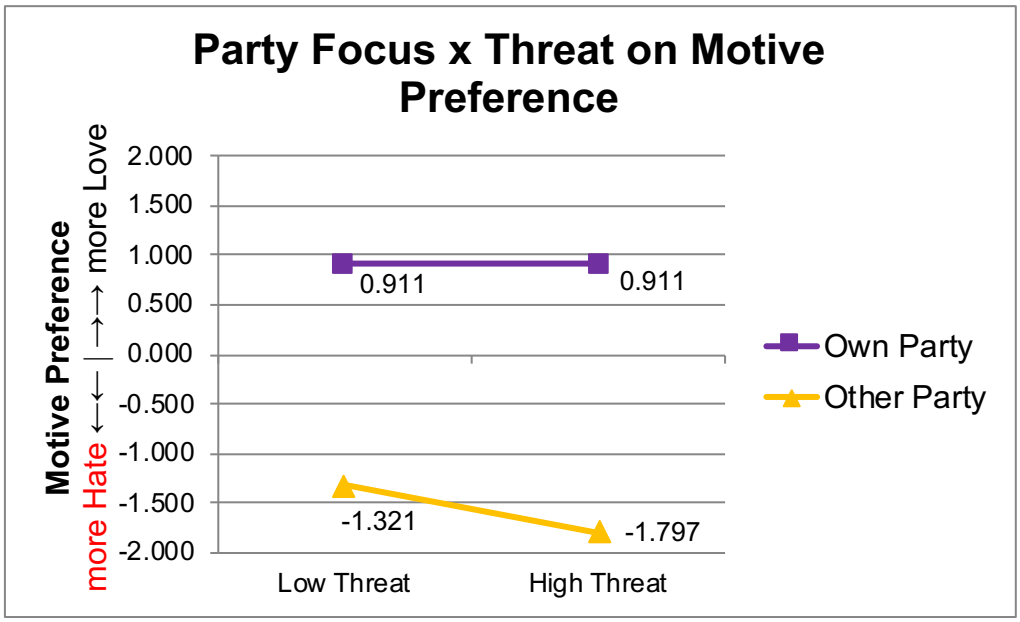
Note: Party Focus (Own, Other) by Motive rating (Love, Hate) Interaction with Motive as a within-participants factor; significant interaction p < .001, η_p^2=.192

Perceived Threat on Motive Preference. To examine the influence of the Party Focus and Threat manipulations on the motive bias, a 2 (Party Focus: Own/Other) x 2 (Threat: High/Low) between-participants ANOVA was conducted on Motive Preference. Data revealed a significant main effect of Party Focus, $F(1,91) = 20.639$, $p < .001$, $\eta_p^2 = .185$, a non-significant effect of Threat, $F(1,91) = 0.192$, $p = .663$, $\eta_p^2 = .002$, and a non-significant interaction, $F(1,91) = 0.192$, $p = .663$, $\eta_p^2 = .002$ (see Figure 28). Once again, results supported neither a negativity bias nor a group threat effect, but the trend in the non-

significant interaction was in accordance with the Combination Effect observed in Chapter 2 (see Figure 28). As in study 5a we conducted a MANOVA, though the interpretation of the separate graphs for Love and Hate scores makes this analysis less useful (Individual Party Focus x Threat on Motive interaction Graphs included in Appendix Q). The MANOVA, however, does produce nearly identical results, and it finds a significant effect of Party Focus, $F(2,90) = 14.746$, $p < .001$, $\eta_p^2 = .247$, a non-significant effect of Threat, $F(2,90) = 0.614$, $p = .543$, $\eta_p^2 = .013$, and a non-significant Party x Threat interaction, $F(2,90) = 0.568$, $p = .569$, $\eta_p^2 = .012$.

Figure 28

Party Focus (Own, Other) by Threat (High, Low) Interaction on Motive Preference



3.9.4 Discussion

We examined Motive Preference scores by threat condition and party focus. While there was a significant main effect of Party Focus, $p < .001$, $\eta_p^2 = .185$, there was not a

significant main effect of threat, η_p^2 = .001, or a significant Party x Threat interaction, η_p^2 = .002. The significant Party Focus has been observed across all studies, supporting literature that Own group and Other group are seen differently, with the own group ratings consistently more positive than the other group ratings. Since the interaction is non-significant, we cannot interpret the pattern definitively. However, a visualization of the interaction is similar to results in Studies 1 and 2 in Chapter 2 using measured threat. Other party ratings were lower in the high than low threat condition, while there was no statistically significant difference between the Own party ratings in the high and low threat conditions. This trend is in line with the Combination Effect, but is not in line with either the Negativity Bias nor the Group Threat effect explanations. However, given that the interaction was not significant, we cannot conclude that there was support for the combination effect and we cannot conclude that the threat manipulation was successful.

3.10 Overall Discussion

3.10.1 Manipulated Threat and the Motive Asymmetry Bias

The results of experiments 5a and b provided consistent support for the Motive Asymmetry Bias through a significant Party Focus (Own/Other) x Motive rating (Love/Hate) interaction (Experiment 5a: η_p^2 = .199; Experiment 5b: η_p^2 = .192). In combination with the results of Waytz et al. (2014), and the results in the Chapter 2 studies, there is strong support for the Motive Asymmetry Bias. In Experiments 5a and 5b, we however failed to find support for the predicted influence of manipulated threat on this bias; the threat effect was non-significant in both experiments. In contrast, both experiments found that Party Focus was a significant predictor of Motive Preference (Love scores minus Hate scores) in which the Own Party ratings were consistently more positive than the Other Party ratings, which was expected. However, the trend of the Threat x Party Focus interaction was different between

the Experiments, though the interactions in both experiments were not significant so interpretations are only speculative. Experiment 5a failed to replicate the Combination Effect pattern observed in Studies 1 and 2 of Chapter 2 that had used measured threat instead of manipulated threat and unlike Chapter 2, the interaction in 5a was not significant. This result may have been due to the timing of the study being during the December holidays. Thus, Experiment 5b was conducted during a non-holiday time and it replicated the pattern of results found in Chapter 2, but once again, the interaction was not significant.

Overall, we observed some similarities between the studies in Chapter 2 on measured threat and Experiment 5b on manipulated threat, but only for the pattern of the interaction and not its statistical significance. Given that the Threat effect and the Threat x Party Focus interactions were not significant, it suggests that the influence of measured threat and manipulated threat on the Motive Asymmetry Bias may not have been similar. This point will need to be re-examined if a robust manipulation of perceived threat is found, which we failed to find in this line of research even though we attempted to use direct and conceptual replications of threat manipulations from the published literature. The inability to find a reliable manipulation of threat that increased perceived threat for all participants in Experiment 1 through 4, as opposed to only Republicans, is troubling and we will address this issue later in this discussion section.

Across the six experiments (Experiment 1, 2a, 2b, 3a, 3b, and 4) that tested three threat manipulations, we failed to find that Conservatives expressed significantly more perceived threat than Liberals. While Conservatives expressed more perceived threat on the General Threat measure in all 6 experiments, in only 2 experiments (Experiment 1 and Experiment 2a) was the effect statistically significant. Thus, while the general trend was supportive of a wide body of literature on political ideology and threat perception, only 2

experiments were statistically supportive, which is contrary to large body of research. We explored this line of inquiry into group differences due to confusion concerning the unsuccessful threat manipulations. We wanted to explore whether group differences could be one explanation as to why the threat manipulations were overall unsuccessful. Regarding the different threat manipulations used, we also failed to find support for the causal influence of Threat. In Experiments 1, 2a, 2b, 3a, and 3b, we observed a non-significant main effect of Threat. In Experiment 4, we observed a significant main effect of threat, but it was in the wrong direction (i.e., higher perceived threat in the Low Threat condition compared to the High Threat condition). Table 5 provides an overview of the results of all studies. Overall, these results were very surprising because we used as direct of a replication of the Stereotype Scale and the Editorial threat manipulations as we were able to conduct given that the original materials were not reported nor did the authors have access to the original materials (Morrison & Ybarra, 2008; 2009). While the current research is suggestive of the idea that liberals and conservatives do not express different levels of threat to threat manipulation, the failure to demonstrate a consistent threat effect while collapsing across ideology may explain the lack of an observed political difference. At this time, no conclusions can be made regarding either of these ideas. Given these findings, we turned to our analyses the interaction between political ideology and threat to test whether Republicans and Democrats differed in their responses to the threat manipulation.

Table 5

Summary of Threat Manipulation Experiments 1-4: significance and effect sizes of main effects and interactions from 2(High/Low Threat) x 2(Political Alignment) ANOVA

#	Threat Manipulation	N	DV	Threat	Political Alignment	Threat x Political Alignment
1	Editorial Paragraph	61	Gen Threat	Nsig (η_p^2=.021)	Sig *** (η_p^2=.270)	Sig ** (η_p^2=.123) Reps more Threat in High than Low; Dems less Threat in High than Low
2a	Stereotype Scale	94	Gen Threat	Nsig (η_p^2=.003)	Sig * (η_p^2=.052)	Nsig (η_p^2=.008) Reps less in High than Low, Dems opposite
2b	Stereotype Scale 2	87	Gen Threat	Nsig (η_p^2=.001)	Nsig (η_p^2=.033)	Nsig (η_p^2=.003) Reps less in high than low, Dems opposite
3a	Editorial Paragraph	98	Gen Threat	Nsig (η_p^2=.000)	Nsig (η_p^2=.019)	Nsig (η_p^2=.000) Both Reps and Dems Equal threat in High and low
3b	Editorial Paragraph	105	Gen Threat	Nsig (η_p^2=.000)	NSig (η_p^2=.001)	Nsig (η_p^2=.026) Reps more in high than low, Dems opposite
4	Threat Scale	131	Gen Threat	Sig * (η_p^2=.036)	Nsig (η_p^2=.010)	Nsig (η_p^2=.017) Reps more in high than low, Dems same

Note: General Threat computed as the mean of four general threat items; same measure used across all experiments

**p < .05; **p < .01; ***p < .001*

Across the six experiments, we also failed to observe a consistent interaction pattern between manipulated Threat and Political ideology. For the Stereotype Scale manipulations in Experiments 2a and 2b, we observed non-significant Threat x Political Ideology interactions.

In these experiments, Republicans responded with *less* threat in the High Threat condition compared to the Low Threat condition, whereas Democrats responded with slightly *more* threat in the High Threat condition. While these were non-significant interactions, the patterns were counter to the literature on symbolic and realistic threat and political ideology. For Experiments 1, 3a, and 3b using the Editorial Threat manipulation, the Threat x Political interaction was significant in Experiment 1 and in Experiment 3b when including the Reactance covariate, which was not used in Experiment 1. In both of these experiments, only Republicans responded with more Threat in the High Threat condition compared to the Low Threat condition. Democrats responded with less threat, which was contrary to expectations. We had anticipated that Democrats would express either equal levels of threat or slightly more threat in the High Threat condition, but to a lesser extent than Republicans. In Experiment 3a, the Threat x Political interaction was non-significant, even with the reactance covariate *and* the pattern was different than Experiment 1 and 3b. In 3a, *both* Republicans and Democrats expressed *more* threat in the High Threat condition, but again, this effect was tiny (η_p^2 = .001) and non-significant. In Experiment 4 using the Threat Scale manipulation, we also observed a non-significant Threat x Political Ideology interaction. Even though the interaction was non-significant the pattern was also counter to expectations in which the simple slopes analysis showed that Republicans expressed equal levels of threat, η_p^2 = .004, p = .620, while Democrats perceived much less threat in the High Threat condition compared to the Low Threat condition, η_p^2 = .093, p = .011. Given these results, it remains possible that those who adopt a conservative political ideology are more responsive and sensitive to threats overall. Further research will need to determine why these threat manipulations were too weak to produce changes in the general threat measure and on the motive asymmetry bias

measures, which may have reduced our ability to see a Threat x Political Alignment interaction if one existed.

We conducted further analyses to check these results by performing Threat x standardized Political Ideology Regressions on the General Threat measure. We entered effects-coded Threat, zPolitical Ideology, and the interaction into the regression model for Experiments 1, 3a, 3b, and 4. The effects-coded Threat x zPolitical interaction was non-significant in Experiment 1 ($R^2 = 0.032$, $t = 1.623$, $p = .110$), Experiment 3a ($R^2 = 0.001$, $t = 0.329$, $p = .743$ with the Reactance covariate), and Experiment 4 ($R^2 = 0.014$, $t = 1.370$, $p = .173$). In only Experiment 3b, was the effects-coded Threat x zPolitical interaction significant ($R^2 = 0.049$, $t = 2.466$, $p = .015$ with the Reactance covariate). Thus, we did not find a consistent, significant interaction using either Political Alignment (Republican/Democrat) or using the continuous measure of Political Ideology.

3.10.2 Political Ideology and Threat

Previous research on political ideology indicates that there are a number of characteristics that vary among those that ascribe to different political ideologies. Some of these differences include need for cognitive closure, dislike of uncertainty, and a focus on threat management (Jost, Glaser, et al., 2003; Jost, Stern, et al., 2017). Overall, more research has found that conservatives *do* attend to and respond to threats more than do liberals. This effect has been found for threats to meaning, values, and resources (Dodd et al., 2012; Hibbing et al., 2014; Jost, Stern, et al., 2017), and an even stronger effect has been found for physical threats of death or bodily harm (Burke et al., 2013; Crawford, 2017). Additionally, conservatives show heightened threat activity and neural sensitivity to threat (Jost & Amodio, 2012; Oxley et al., 2008; Vigil, 2010), and increased threat has been associated with more conservativism (Nail et al., 2009; Thorisdottir & Jost, 2011). The Uncertainty-Threat model

by Jost et al. (2007) posits that the appeal of politically conservative opinions and leaders is strengthened when the psychological need to decrease uncertainty and threat are relatively high, and the appeal of politically liberal opinions is strengthened with the opposite conditions. Therefore, under a high threat condition, politically conservative opinions are likely to be more appealing, and under low threat condition politically liberal opinions are likely to be more appealing. This suggests that there is more of a link between higher threat, and politically conservative viewpoints. With these considerations, it would make sense that those who tend to adopt a more conservative viewpoint would indicate more perceived threat in our studies, and also that they would be responsive to a threat manipulation or on a measure of perceived threat.

The experiments in Chapter 3 failed to consistently demonstrate a difference on our manipulations of threat, yet we know that liberals and conservatives experienced a difference in the threat scale manipulation. We created a Measured Threat score for the 61 participants that completed the Symbolic-Realistic Threat Scale as part of the High Threat manipulation. When we checked the correlation of measured Political Ideology with the Measured Threat scores, we observed a significant correlation, $r = .732$, $p < .001$ with conservatives showing more perceived threat. Thus, even though liberals and conservatives showed differences on the threat scale, those differences did not translate to a difference on the General Threat measure. One explanation of these findings is that our threat manipulations were ineffective and did not actually manipulate threat as intended or that the general threat measure was too explicit and it caused Republicans and Democrats to respond in opposite directions that cancelled out the effect of the manipulation. Including a measure of psychological Reactance, unfortunately, did not provide an explanation for the nature of this difference. A second explanation is that there is a fundamental difference between temporarily activating symbolic-

resource threat and measuring symbolic-resource threat. Perhaps our measure of threat tapped into more chronic, strong, or rigid attitudes whereas the temporary activation did not. Chronically held attitudes may be stronger than temporarily activated attitudes, which may be the reason for the reliable effect in Chapter 2. Until we can successfully manipulate threat, we cannot answer the question of whether the two types show differences on intergroup attitudes or on the motive asymmetry bias.

There is also additional evidence suggesting a difference between Liberals and Conservatives with respect to four different characteristics, which may relate to threat perception: uncertainty orientation (UO), need for cognitive closure (NCC), intolerance of uncertainty (IO), and intolerance of ambiguity (IA) (Rosen et al., 2014). Uncertainty orientation is the categorization of people into those who are either (a) uncertainty-oriented [find uncertainty desirable and are motivated to resolve it] or (b) certainty-oriented [avoid uncertainty and prefer to maintain clarity] (Rosen et al., 2014). Increased levels of uncertainty avoidance are associated with the endorsement of politically conservative viewpoints (Jost et al., 2007), which coincides with being certainty-oriented. NCC is the desire for a firm answer to questions and an aversion to ambiguity (Rosen et al., 2014). Conservatives are typically higher in this attribute, dislike uncertainty, and tend to come to conclusions quickly rather than to hold views in the face of challenging information (Federico & Malka, 2018). Dislike for uncertainty is a set of cognitive, emotional, and behavioural reactions to situational uncertainty associated with the tendency to interpret ambiguous or uncertain situations as threatening (Rosen et al., 2014). Increased levels are related to overestimation of the likelihood of negative outcomes and overestimation of the consequences of negative outcomes (Bredemeier & Berenbaum, 2008). In overestimating the likelihood of negative outcomes, this could lead to an increased likelihood of threat perception from an outgroup. If

an individual feels there will be a negative outcome, they are more likely to be threatened by that situation. Intolerance of ambiguity is the tendency of individuals to interpret ambiguous situations as a source of threat or discomfort (Rosen et al., 2014). These four characteristics are associated with a tendency to adopt politically conservative viewpoints (Caparos et al., 2014; Jost, Glaser, et al., 2003; Jost et al., 2007). Higher levels of uncertainty avoidance (Jost et al., 2007), need for cognitive closure (Hibbing et al., 2014), dislike of uncertainty (Jost et al., 2007), and intolerance of ambiguity (Caparos et al., 2014) are overall related to political conservatism. With these considerations, it follows that those who adopt a more conservative viewpoint would be more likely to perceive threat, and have more of a reaction overall to threatening stimuli.

3.10.3 Threat Manipulation

The threat manipulations we had used failed to induce threat within our experiments. Part of these failures were due to Republicans and Democrats responding in opposite ways to the threat manipulation, thus, cancelling out the overall effect. In 5 of the 6 experiments, these groups responded in opposite directions. In delving more deeply into these results, we did note that the Threat Scale manipulation in Experiment 4 may not have been quite as unsuccessful as we had thought. This final manipulation was successful regarding the direction of the effect for a subset of American Republicans, with the responses to the Scale Manipulation itself. When we included the Threat Scale as the dependent measure (i.e., scores on the threat and neutral scales), as a post-hoc exploratory analysis, we observed a significant Political Alignment (Republican/Democrat) x Threat manipulation (High vs Low) interaction, $F(1, 127) = 43.258$, $p < .001$, $\eta_p^2 = .254$. Republicans expressed *more* threat in the High Threat ($M = 4.41$, $SD = 1.08$) than in the Low Threat Condition ($M = 3.74$, $SD = 0.26$) while Democrats expressed the opposite pattern with *less* threat in the High Threat ($M = 2.58$, $SD =$

1.22) than in the Low Threat condition (M = 3.79, SD = 0.32). This pattern of results suggests that the High Threat manipulation was effective, but only for the Republicans in the sample. Thus, we had included only Republicans in Experiments 5a and 5b. Unfortunately, the Threat Scale manipulation ultimately turned out to be ineffective in inducing changes in responses on the Motive Bias measure in the later experiments.

Given that research in intergroup bias can sometimes fail to observe effects on more explicit measures of prejudice and bias, perhaps we failed to see effects on our threat measures because they were explicit measures. Unfortunately, implicit measures of threat were not available at the time that we conducted these experiments (March et al., 2020). We would have had to develop and test our own implicit measure of threat before continuing our experiments, which would have taken too much time for a thesis given that the Chapter 3 experiments were in the latter half of the three-year PhD. To investigate this effect further, it may be necessary to create such an implicit measure or to use other implicit measures of prejudice or bias that may be used as proxies for threat outcome. Additionally, noting that the different threat manipulations seem to be more effective with one subset of participants over the other, future research could attempt to isolate and understand is the mechanisms for these threat effects. We attempted to use the Reactance measure to elucidate a potential mechanism, but we were unsuccessful.

Considering that 2 of our 3 manipulations were close replications of published studies, one possible limitation could be that our replication was not close enough because the published studies failed to provide the original materials. We could have missed an important aspect of the manipulation that rendered our replications unsuccessful. However, another possible limitation is that temporarily activating symbolic-resource threat may not elicit the same level of threat as experiencing the threats chronically (i.e., trait threat); investigating

these differences may be beneficial. Perhaps a much more time-intensive threat manipulation is needed to activate the same level of trait threat. When failing to successfully manipulate a variable, there are usually more questions created than answered and this is the case for Chapter 3. There are many avenues to pursue and it will take further empirical testing to identify the cause of the problems we experienced.

3.10.4 Conclusion

In this chapter, we presented 8 experiments on manipulated symbolic and realistic threat: Part 1 outlined six experiments testing three different threat manipulations, and Part 2 outlined two experiments utilizing the third novel threat manipulation to examine manipulated threat and the Motive Bias in a sample of American Republicans. Within the first six experiments, there were consistent patterns in the interactions between political alignment and threat condition within manipulation type, but not between manipulation types and not with the same responses for Republicans and Democrats. With the last novel manipulation, we were able to not only measure threat through outcome variables, but also explore the threat scale scores as a manipulation check through post-hoc exploratory analyses. In doing so, we discovered it was successful in the subset of participants who identified as Republican. Future research could explore this difference, as well as continue to develop more effective threat manipulations.

Results from studies 5a and 5b attempted to extend the findings from Chapter 2 on the relationship between perceived threat and the Motive Bias for a sample of American Republicans. Results from these studies indicate that the Threat x Motive Bias pattern observed in Chapter 2 was replicated in only one of two experiments (i.e., 5b). Thus, we cannot conclude that the relationship of measured threat and Motive Bias in Chapter 2 was replicated in Chapter 3.

CHAPTER 4: OVERALL DISCUSSION

This thesis focuses on the relationship between perceived symbolic and realistic threat and the Motive Asymmetry Bias. We do so through two lines of research: measured perceived threat and manipulated perceived threat. These novel lines of research combine previous literature on ingroup bias and threat with the research on the Motive Asymmetry Bias (Waytz et al., 2014), which has not been investigated in relation to threat.

4.0 Intergroup Threat Theory, Intergroup Bias, and Motive Bias

Chapter 1 introduced the literature on Intergroup Threat Theory (ITT), different types of threat, intergroup bias, how threat and bias are related, and introduced the Motive Asymmetry Bias (Waytz et al., 2014). To recap, ITT posits that perceived threat leads to prejudice/bias, and there are two main types of threat: symbolic threat and resource (i.e., realistic) threat at both the individual- and group-level (Stephan & Stephan, 2016; Stephan & Renfro, 2000). Brewer (1999; 2016) posits that discrimination is a behavioural form of prejudice and that either prejudice or intergroup bias may lead to discrimination. Thus, bias may also be influenced by perceived threat in the way outlined in ITT for prejudice.

4.0.1 Intergroup Threat Theory (ITT)

ITT posits that individual and group level elements, such as anxiety and stereotypes lead to perceived threat, which can lead to prejudice. We explored perceived threat as it relates specifically to the Motive Asymmetry Bias – a bias, which may be considered relevant within ITT due to the similar aspects of prejudice and bias, explored briefly here. Prejudice has often been considered a negative attitude toward a group or member of a group (Allport, 1954; Nelson, 2009; Rios et al., 2018). Allport's (1954) original definition of prejudice involved "thinking ill of others without sufficient warrant" (p. 6), and "an antipathy based upon a faulty and inflexible generalization. . . directed toward a group as a whole, or toward

an individual because he is a member of that group" (p. 9). This narrow focus on negative aspects within the definition of prejudice makes it clear to understand and acknowledges the negative connotation which now surrounds prejudice, yet leaves out the possibility of a positive prejudgment – such as a prejudice towards a member of the ingroup. Prejudice, at its core, it is a prejudgment of an individual or group based on some characteristic – be that physical, cultural, racial, occupational, etc. Brown (2010) notes that, logically, as a prejudgment, prejudice can be either positive or negative. This is reflected in more recent work that incorporates a more inclusive view of prejudice (Brewer, 2016; Brown, 2010) and in research showing that ingroup positivity/bias is much more prevalent than outgroup derogation (Brewer, 1999; 2016; Dang et al., 2020; DeSteno et al., 2004; Greenwald & Pettigrew, 2014; Halevy, Bornstein, & Sagiv, 2008).

The above literature adds credibility to the conclusion that prejudice may involve both positive and negative elements. The link between prejudice, discrimination, and bias gives further clarification to our use of ITT as a theoretical framework of the relationship between threat and bias. Both prejudice, positive or negative evaluation, and ingroup bias, more positivity toward the ingroup than the outgroup, can be increased if threats to symbolic values or resources are experienced or perceived. The current thesis measures both positive and negative ratings of ingroups and outgroups to assess the existence of a Motive Asymmetry Bias, which is a positive bias towards the view of the ingroup's motives and negative bias towards the view of the outgroup's motives. The current research considers how perceived threat from the outgroup may relate to and influence the Motive Bias (Stephan & Stephan, 2016; Stephan & Renfro, 2000).

4.0.2 Intergroup Bias

Previous research within intergroup relations has established the existence of a strong intergroup bias where the ingroup generally favoured over an outgroup. This is seen not only in naturally formed groups, but also in experimental groups, and even in minimal groups paradigms, where there is no prior attachment or meaning to the groups in question outside of the experimental setting (Aberson, 2015; Brewer, 1999; Brewer, 2016; Molina et al., 2016; Parker & Janoff-Bulman, 2013; Weisel, 2015). Intergroup bias refers to the overall bias in which the ingroup and outgroup are perceived differently, although it is generally accepted that the ingroup is favoured over the outgroup. Ingroup bias is the specific element where the ingroup is viewed more favourably. Across all studies in this thesis, analyses support the existence of ingroup bias in the form of a main effect of Party Focus on Motive Preference: Study 1, Chapter 2, R^2 = .285, p < .001; Study 2 T1, Chapter 2, R^2 = .272, p < .001; Study 2 T2, Chapter 2, R^2 = .336, p < .001; Experiment 5a, Chapter 3 η_p^2 = .192, p < .001; Experiment 5b, η_p^2 = .185, p < .001. These findings are supportive of decades of research in social psychology and intergroup relationships.

Intergroup bias, as a difference in views between groups, can be seen in three ways: Type one includes more positivity towards the ingroup, Type two includes more negativity towards the outgroup, and Type three is a mixture of the two (Brewer, 2016). It would follow that intergroup bias may be made of two elements: the way the ingroup is seen and the way the outgroup is seen. With this in mind, our research included a measure of the Motive Bias that considers both the view of the ingroup (Ratings of ingroup's motives on positive and negative dimensions), and the view of the outgroup (Ratings of the outgroup's motives on positive and negative dimensions). As stated previously, intergroup bias was shown to be consistent across all studies and conditions. We were able to make some inferences about how

intergroup bias was related to perceived threat by examining the interaction between Threat and Party Focus on the Motive Bias at different levels of threat.

4.0.3 Motive Bias

According to ITT, perceived threat can lead to prejudice and bias. If there is a bias that generally favours the ingroup over the outgroup then it may be seen in cases of conflict. Waytz et al. (2014) identified the Motive Asymmetry Bias, which occurs when the motives ascribed to each group in conflict are biased towards the ingroup. The ingroup is more likely to be perceived as being in conflict due to positive reasons (i.e., empathy, compassion, or kindness towards the ingroup), and the outgroup is more likely to be perceived as being in conflict due to negative reasons (dislike, disdain, or hatred towards our group; Waytz et al., 2014). In other words, the ingroup is in conflict due to a desire to protect their group, protect their group's interests, and neither hates the outgroup nor wants to cause them harm. However, the outgroup is seen to be in conflict due to a hatred of the ingroup and desire to cause them harm, rather than a similar motive of desiring to protect their own group. This bias has not been examined in relation to perceived threat, and we were interested in examining how perceived threat may relate to and influence this bias.

In all studies examining the Motive Bias, we first analysed participants' Love and Hate scores regarding motives for their Own Group and the Other Group being in conflict. We conducted regression analyses on measured threat in Study 1 (cross-sectional) and Study 2 (longitudinal) and they provided support for the Motive Bias, indicating this Asymmetry was constant across studies and time. We observed a significant Party Focus x Motive Interaction: Study 1, $p < .001$, $\eta_p^2 = .285$; Study 2 Time 1, $n = 641$, $p < .001$, $\eta_p^2 = .263$; Study 2 Time 2, $n = 500$, $p < .001$, $\eta_p^2 = .324$. Participants indicated that when in conflict their Own Group was motivated more by Ingroup Love than Outgroup Hate, and that the Other Group

was motivated more by Outgroup Hate than Ingroup Love. Regression analyses from Experiments 5a and 5b on the Motive Preference Scores in Chapter 3 also found consistent support for the Motive Bias. We observed a significant Party Focus x Motive interaction: Experiment 5a, $p < .001$, $\eta_p^2 = .199$; Experiment 5b, $p < 0.001$, $\eta_p^2 = .192$. Given strong and consistent support for the Motive Bias, we continued to investigate how both measured and manipulated threat related to or influenced the Motive Bias. At this point our research branched into two unique lines: Measured Threat and the Motive Bias in Chapter 2, and Manipulated Threat on the Motive Bias in Chapter 3.

4.1 Threat and the Motive Bias

4.1.1 Measured Threat and the Motive Bias

Chapter 2 investigated measured threat and how it relates to the Motive Bias between American Republicans and Democrats – two groups in intractable conflict. We utilized both cross-sectional (Study 1) and longitudinal (Study 2) designs to investigate perceived threat. The Motive Bias was found in Study 1, Study 2 part 1, and Study 2 part 2.

Study 1 investigated measured symbolic and realistic threat from the outgroup at a single time point in relation to the Motive Bias. Regression analyses revealed that measured threat significantly related to the Motive Bias, $R^2 = .069$, $p < .001$, and this relationship was qualified by a significant interaction between measured threat and party focus, $R^2 = .062$, $p < .001$. A higher Motive Bias score indicated more positive motivations, and a lower score indicated more negative motivations for being in conflict. For participants who rated their Own group, level of perceived threat did not relate significantly to Motive Preference ratings. The threat simple slope was non-significant, $R^2 < .001$, $p = .760$, with participants expressing equivalent ingroup positivity on the motive preference measure when perceiving lower threat ($M = 1.14$) or higher threat ($M = 1.07$). Participants who rated Other Party motivations,

however, did show significant differences, R^2 = .116, p < .001 related to perceived threat. Those who perceived lower threat expressed little bias (M = -.50) while those who perceived higher threat expressed significantly more bias (M = -2.85). This pattern of results supported neither the Negativity Bias nor the Group Threat effect. Instead, the results were a Combination of the two predicted patterns. We conducted a second study to test whether this Combination Effect would replicate and whether it would persist over time.

Study 2 extended the investigation of measured and symbolic threat in relation to the Motive Bias utilizing a longitudinal design. First, it provided support for the relationship between perceived threat and the Motive Bias. Regression analyses again revealed that measured threat significantly related to the Motive Bias at Time 1, R^2 = .045, p < .001. This relationship was also observed at Time 2, R^2 = .03, p < .001, and was qualified by a significant interaction between measured threat and party focus, Time 1: R^2 = .054, p < .001; Time 2: R^2 = .037, p < .001. When perceived threat was higher, the ingroup viewed itself as more positively motivated, and viewed the outgroup as more negatively motivated. In this research, we had also included a measure of social identification to test whether higher social identification with one's group would moderate this relationship. This idea was not supported, and we observed a non-significant Threat x Party Focus x Social Identity interaction.

Second, with the longitudinal design, we were able to explore measured threat in relation to the Motive Bias over time. Regression analyses revealed measured threat at Time 1 was significantly related to the Motive Bias three months later at Time 2, R^2 = .01, p = .025, and this relationship was also qualified by a significant interaction, R^2 = .02, p = .003. These results are suggestive that the measure of threat we used might be tapping into chronic or state threat perceptions, but further research needs to be conducted to explore this idea. Regardless of whether or not this tapped into chronic or state threat perceptions, the relationship between

measured threat and the Motive Bias measured three months later was similar to the relationship between measured threat and the Motive Bias measured at the same time. Overall, participants viewed the outgroup more negatively when perceived threat was high compared to low. No such relationship was observed for the Own group – the Own group was viewed positively regardless of perceived threat level.

The research outlined in Chapter 2 both provided support for the Motive Bias and showed a consistent pattern in how perceived threat related to the Motive Bias with groups in conflict. However, the mechanism by which this effect occurs is not clear because neither a priori hypothesis was supported. Instead, there was a pattern that was a combination of the Negativity Bias and the Group Threat Effect. Perceived threat appeared to influence the Motive Bias not by how the ingroup sees itself, but how the ingroup views the outgroup. In Chapter 3, we extended this work and investigated whether manipulated threat would influence the Motive Bias in a similar way or whether we would observe results matching one of the a priori hypotheses.

4.1.2 Manipulated Threat and the Motive Bias

Chapter 3 extended from the research in Chapter 2 by investigating manipulated perceived threat on the Motive Bias. We tested three different threat manipulations, which were replications of manipulations used in previously published studies. The first six experiments tested three different types of threat manipulations, using samples of American Republicans and Democrats. Unfortunately, most of the manipulations were not very successful. In Experiments 1, 2a, 2b, 3a, and 3b, we failed to observe a significant effect of the threat manipulation. However, we observed a weak main threat effect in Experiment 4, η_p^2 =.036, but this effect showed the high threat manipulation producing *less* threat in participants, based on responses to the threat measures used. Generally, we failed to find a

reliable threat manipulation even though we used fairly close replications of 2 manipulations from published studies and also using a third manipulation that was a conceptual replication of a published study. One bright note was that the final threat manipulation from Experiment 4 was shown to have acted as expected for the subgroup of American Republicans when examining the ratings participants made on the threat scale that was the manipulation for high threat. The Threat x Political Alignment interaction on the manipulation Scale Scores was significant, $F(1, 127) = 43.258$, $p < .001$, $\eta_p^2 = .254$, with Republicans indicating less threat in the Low Threat ($M = 3.74$) than the High Threat condition ($M = 4.41$). Since we had not found a reliable threat manipulation, and since our General Threat measure may have been too explicit to detect differences, we conducted Experiment 5a using the Threat Scale manipulation from Experiment 4. Experiments 5a and 5b examined manipulated Threat on the Motive Bias at two different time points. In the first experiment, we had conducted it during the December holiday season and this study was the only one out of 5 (Study 1, Study 2 Time 1, Study 2 Time 2, and Experiments 5a and 5b) that failed to show a negative relationship between perceived threat and ratings of the other party. Given this anomaly we conducted the second Experiment (5b) to account for any influence of the holiday season had on participants' responses in Experiment 5a and observed the expected negative relationship. We first analysed participants' Love and Hate scores in regard to motives of Own Party and Other Party for being in conflict to confirm the Motive Bias, which we observed in both experiments.

We then conducted a 2 (Party Focus: Own/Other) x 2 (Threat: High/Low) between participants ANOVA on Motive Preference scores. Results were consistent across both experiments with the sample of American Republicans. In Experiment 5b, Party Focus did influence the Motive Bias, $F(1,91) = 20.639$, $p < .001$, $\eta_p^2 = .185$ while Threat did *not* ,

$F(1,91) = 0.192$, $p = .663$, $\eta_p^2 = .002$. These effects were, unfortunately, *not* qualified by a significant interaction, $F(1,91) = 0.192$, $p = .663$, $\eta_p^2 = .002$. While the outgroup was consistently viewed as more motivated by negative reasons (outgroup hate) than positive (ingroup love), this slope was not significant. This trend of responses is similar to the pattern seen in the significant Party Focus x Measured Threat interactions in Chapter 2. So, while we observed a consistent pattern for measured threat, the trend for manipulated threat was much less reliable. This result could be due to the failure to find a reliable manipulation of threat, or there may be a difference between trait and state threat or chronically-activated threat and temporarily-activated threat that has not been discovered in the literature. We turn to a discussion of this topic in the next section.

4.2 Longitudinal Threat and Cross-Sectional Threat

Chapters 2 and 3 explored measured threat and manipulated threat and the Motive Bias, and observed different relationships for measured threat and for manipulated threat. Perceived threat was reliability related to the motive bias for measured threat, but not for manipulated threat. While it is entirely possible that the observed differences may have been due to the failure to replicate the influence of manipulated threat from several published studies, there are also other explanations for a difference. One such possibility is a difference between chronically-activated threat (i.e., trait threat) and temporarily-activated threat (i.e., state threat). If the perception of threat to one's groups becomes habitual, it may be more impactful or have a different impact than a temporary activation of threat through priming. This would be akin to chronic/trait anxiety having a different impact than state anxiety (Dias et al., 2012; Skinner & Brewer, 2002) or trait anxiety being more impactful than temporary activation of anxiety. Recent evidence has also shown that trait anxiety and state anxiety are associated with activation of different brain regions and different neuroanatomy (Saviola et

al., 2020). In relation to threat, other researchers have demonstrated that individuals vary in their responsiveness to perceived threats (Jost et al., 2007; Jost, Stern, et al., 2017). This greater responsiveness may become habituated to create a chronic pattern of response to perceived threats. In the next few sections, we review this possibility for threat.

4.2.1 Chronic Threat from the Outgroup

Chapter 2 investigated the relationship between measured threat and the Motive Bias, utilizing both cross-sectional and longitudinal quasi-experimental designs. Study 2 utilized a longitudinal design and allowed us to examine perceived threat over time and how it related to the Motive Bias. Examining threat perception from Time 1 on the Motive Bias at Time 2, indicated that perceived threat from three months ago relates similarly to the Motive Bias as perceived threat measured at one point in time. When perceived threat was higher, the Motive Bias was larger. This larger bias may have been due more to the outgroup perceptions, because the outgroup perceptions were more negative for high perceived threat compared to low perceived threat while the same association was not significant for the own group perceptions. While we would need to conduct further research to differentiate whether the measure of perceived threat was in fact a measure of State/Chronic Threat, we have some preliminary evidence to support this idea. In particular, the evidence that perceived threat predicted Motive Bias over a three-month gap does indicate that it may tap into chronic motivations that persist over time.

4.2.2 Measured Threat from the Outgroup

Each cross-sectional study in Chapter 2 (Study 1, Study 2 part 1, and Study 2 part 2) garnered similar results: significant main effects of Party Focus and Threat, and a significant Party Focus x Threat interaction. This indicates that measured threat did relate significantly to the Motive Bias and that higher perceived threat related to a greater Motive Bias. Examining

the graphs of each study suggests that the mechanism for this effect may relate to the way the outgroup is viewed since the threat slope was significant for only Other group ratings.

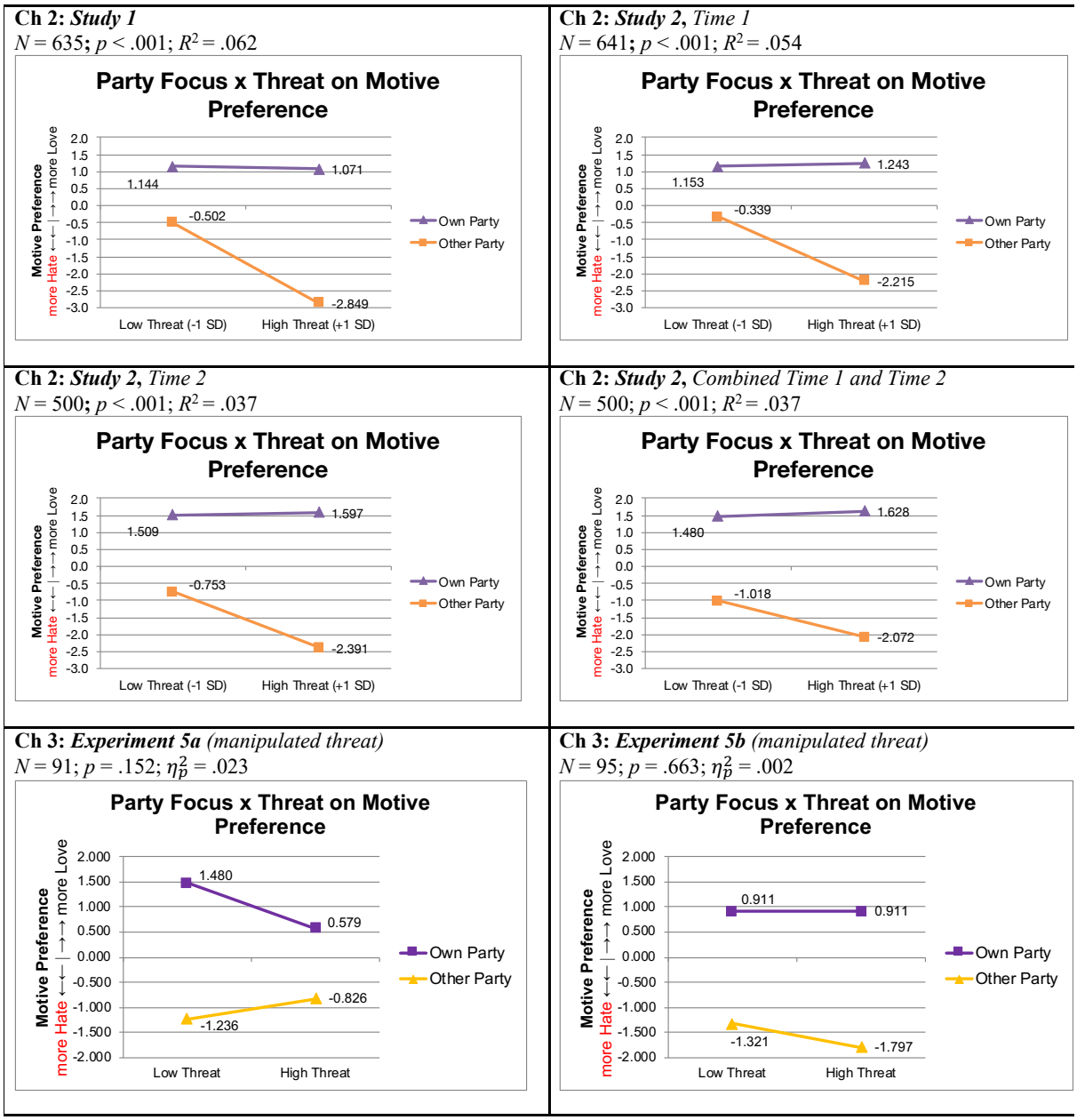
Chapter 3 attempted to extend the findings of Chapter 2 by examining the influence of temporarily-activated perceived threat on the Motive Bias. We developed a threat manipulation based on manipulations from the published literature. Studies 1 through 4 examined 3 different threat manipulations, two of which were replications of manipulations conducted by Morrison and Ybarra (2008; 2009). The final threat manipulation was developed after Experiments 1, 2a, 2b, 3a, and 3b failed to replicate the results of Morrison and Ybarra (2008; 2009), even though we used as direct of replications as was possible without access to the original materials.

Altogether, the results of Chapters 2 and 3 indicate that realistic and symbolic threat relate to Motive Bias and that they may influence it through the people's view of the outgroup. The interaction of Party Focus and Threat on the Motive Bias in experiments 5a and 5b were non-significant so, on their own, any interpretation is speculation. However, taken together with the significant interactions of Party Focus and Threat in the studies in Chapter 2, there is consistent evidence that measured threat may be more important for the view of the outgroup than the ingroup, at least for the measure of perceived threat that we used. Figure 29 shows the Party Focus x Threat on the Motive Preference interaction graphs of perceived (Chapter 2) and manipulated (Chapter 3) threat to visualize this relationship. As seen in Figure 29, in almost all studies the view of the Outgroup is more negative when perceived threat is higher (top 4 panels), and for one of the two experiments that manipulated high threat (bottom right panel). The only aberration is study 5a (bottom left panel), but we have addressed the possible confound of conducting that experiment during the December holidays by conducting a second one (5b) outside of the holiday time. The interaction trend in

experiment 5b matched the interactions patterns of Chapter 2, though the interaction was not significant. Overall, the Ingroup was viewed similarly regardless of perceived threat level for the studies of Chapter 2 or threat level of the experiments of Chapter 3. The Other group, however, was viewed more negatively when perceived threat was higher in all studies of Chapter 2 (Study 1, $R^2 = .116$, $p < .001$; Study 2 Time 1, Study 1, $R^2 = .091$, $p < .001$; Study 2 Time 2, Study 1, $R^2 = .06$, $p < .001$) and in Experiment 5b of Chapter 3, though again, the slope was not significant (Study 1, $R^2 = .010$, $p = .488$).

Figure 29

Compilation of Party Focus (Own, Other) by Threat (Low, High) Interaction on Motive Preference Figures with Significance and Effect Size



Note: Upper four panels show interaction from regression analyses with standardized Threat measured at -1 and +1 SD; lower two panels show interaction from ANOVA analyses at Low and High threat.

4.3 Potential Explanations and Mechanisms

4.3.1 Maximizing Differences

Chapters 2 and 3 outline the results of a number of studies on measured and manipulated threat. The more that threat was perceived, the more likely the ingroup considered the outgroup to be motivated by outgroup hate than ingroup love for being in conflict, and the more likely the ingroup considered itself to be motivated by ingroup love for being in conflict. This could be due to ingroup bias, a more positive view of the ingroup, or outgroup derogation, a more negative view of the outgroup. We reviewed different types of threat: mortality threats, identity threats, abstract/concrete threats, and realistic/symbolic threats. It is possible that for example, identity threats are more likely to influence the view of the ingroup than the view of the outgroup. Realistic and symbolic threats, such as the ones we used in our studies, may bring to mind elements of the outgroup and so influence the view of the outgroup rather than the view of the ingroup. However, this explanation would make sense only if threat was measured prior to measuring the Motive Asymmetry Bias. Since we counterbalanced the measurement of threat, we could test this for Studies 1 and 2 of Chapter 2. Overall, we observed no difference in the pattern when threat was measured before or after the motive bias. We observed the Combination Effect in all cases; threat was related to only ratings of the Other group. While much of the research on intergroup relationships shows that Ingroup Bias is more prevalent than Outgroup Derogation (Brewer, 1999; 2016), those examinations were not focused on cases of threat or groups in conflict.

One possible explanation for our results is that when including threat, the Motive Bias is influenced mainly by the way the outgroup is seen. This is plausible considering research investigating explanations for ingroup bias. These include a Maximizing Differences (MD) strategy, which focuses on relative gain of the ingroup, and a Maximizing Ingroup Profit

(MIP) strategy, which focuses on absolute gain of the ingroup, and Maximum Joint Payoff (MJP) strategy, which maximizes the gain of both groups through equal allocation (Vaughan et al., 1981). Vaughan et al. (1981) investigated children's allocation of monetary resources, ingroup bias, and whether they were more likely to utilize an MD, MIP, or MJP strategy. They found that children were more likely to utilize an MD strategy in allocating resources. Ten years before, Tajfel et al. (1971) found similar results in which participants were more likely to favour the ingroup with a maximum difference between the groups being most important. Participants were more likely to distribute payments for participation in the experiment in a manner which led to a maximum difference between the ingroup and relevant outgroup, at the expense of a greater objective individual or ingroup gain. Recently, Moscatelli and Rubini (2013) also found that groups were more likely to pursue a maximizing differences approach even when allocating negative outcomes to the ingroup and outgroup. They investigated group entitativity on the allocation of negative resources – while entitativity is not the focus of the current research, they did find interesting results that the ingroup still favoured a maximizing differences approach when allocating these negative resources to the ingroup and outgroup. Taken together, these results support the possibility of ingroup bias due to maximizing the difference in the way that the ingroup and outgroup are viewed: the difference is maximized in higher threat due to the outgroup being seen as more negatively motivated. In relation to our research, the difference between ingroups and outgroups might be maximized by the outgroup being seen more negatively. Of course, in our studies, participants focused on rating either their own group or the other group. Yet, when they make their ratings for the other group, they might bring their group to mind as a comparison and this might lead them to more negative ratings of the outgroup in order to maximize differences.

Related to this, research utilizing the Intergroup Prisoner's Dilemma (IPD) and Intergroup Prisoner's Dilemma – Maximizing Differences (IPD-MD) paradigms indicate that the more likely method behind ingroup bias is a Maximizing Differences strategy (Dang et al., 2020; DeDreu et al., 2015; Halevy, Bornstein, & Sagiv, 2008). Individuals are more likely to utilize a strategy that maximizes the difference between the ingroup and the outgroup rather than help only the ingroup. The goal is not to make the ingroup seen as more positive on its own, but to ensure that the ingroup is, and stays, more positive than the outgroup, even if the ingroup is not objectively viewed more positively than before. This is evident from the studies in Chapter 2: the difference in Motive Preference scores ascribed to the ingroup and outgroup was larger for those who perceived more threat. To examine this idea, we conducted analyses in which we examined the Party slope for those perceiving high threat (+1 SD). We found a significant difference between Own group and Other group ratings in Study 1 for both those who perceived low threat $R^2 = 065$, $p < .001$ and high threat $R^2 = .282$, $p < .001$, though the slope was much larger for those who perceived high threat. We found a similar pattern in study 2 for those who perceived low threat $R^2 = 061$, $p < .001$ and high threat $R^2 = .270$, $p < .001$. Thus, there is some preliminary evidence that maximizing differences may be occurring.

4.3.2 Intergroup Differences

Our research indicated that threat is related to bias through the way the outgroup is seen. It is possible that for those individuals who perceive high threat from the outgroup (i.e., other party), they direct more cognitive processing toward the Other group when making judgments. This processing might cause them to have more concern for the other group's motivations or provide more extreme ratings, which may produce more negative ratings of the other group while generally not changing ratings of their own group. This might be particularly true for groups in conflict. Given we used Chapter 3 to attempt to manipulate

threat and to replicate the measured threat findings from Chapter 2, we did not spend resources uncovering the mechanisms for perceived threat relating to only ratings of the Other group. In follow up research, we will need to investigate potential mechanisms, which to date, we have not found a satisfactory explanation for the results of Chapter 2. However, given that ratings of the Other group appear to be the source of the larger motive bias for participants who perceive higher threat, one area of research around intergroup similarities and differences indicates a potential intervention.

Research on intergroup relationships has found that focusing on similarities between groups can reduce intergroup bias and could reduce it here. Garcia-Retamero et al. (2012) examined the influence of value similarity and power on perceived threat, and found that the more value similarity there was, the less threat perceived. This was qualified by an interaction between value similarity and power, with those of weak power and similar values eliciting the least amount of perceived threat. Given these results, a focus on the similarities between groups may reduce the Motive Bias; if the outgroup is seen as more similar, it could follow that their motives for being in conflict would be judged as similar to the ingroup's motives. However, there is an issue that this approach would work only if the groups had equal status. For example, if one group experiences disadvantages, the similarities approach would reduce a focus on the disadvantages. While it would improve intergroup attitudes, the actual disadvantages would be obscured and there would be less support for reducing the disadvantages and less willingness to support or advocate for collective action that reduces those disadvantages (Choma & McKeown, 2019; Dixon et al., 2011; Dovidio, Saguy, et al., 2014). Future research could explore the potential in improving intergroup attitudes and relations through these mechanisms: outgroup focus, intergroup differences, similarities, and

bias reduction. Another avenue to explore, related in some ways to intergroup differences, is intergroup contact.

4.3.3 Intergroup Contact

Our findings provide interesting viewpoints on the relationship between threat and the Motive Asymmetry Bias. Studies within clinical phobia literature and within the group threat literature (Integrated Threat Theory) provided two different hypotheses regarding how threat may relate to the Motive Asymmetry Bias. The Negativity Bias perspective indicates that both the view of the ingroup and the view of the outgroup will be more negative when people perceive higher threat. The second Group Threat Bias perspective indicates that the view of the ingroup will be more positive, and the view of the outgroup will be more negative with higher threat. Our research provided full support for neither of these hypotheses, and instead, suggests a third possibility: perceived threat does not influence or relate to the ingroup's view of itself, but it does relate to the view of the outgroup in which higher threat is related to more negative ratings. Considering that our main findings showed that the view of the outgroup is more likely to be influenced by threat, research surrounding intergroup contact could provide some insight into reducing bias and improving intergroup relationships.

Previous research has investigated the influence of outgroup contact on bias and threat between groups. Intergroup Contact Theory posits that increased contact with an outgroup reduces prejudice (Allport, 1954). Pettigrew and Tropp (2006) conducted a meta-analysis on 515 studies, with the overall results that intergroup contact does typically reduce prejudice and is further strengthened with optimal conditions of equal status between groups, personal interactions between group members, social norms of equality, and having a common interaction goal. Research on positive, negative, and virtual intergroup contact shed additional light on this area (Aberson et al., 2020; Abrams et al., 2017; Kim & Wojcieszak, 2018).

Abrams et al. (2017) investigated whether objective threat (economic, safety, and symbolic) mediated the relationship between intergroup contact and prejudice. They found that threat mediated contact and prejudice where more intergroup contact reduced perceived threat; thus, one intervention would be to set up intergroup contact (real or imagined) using some of the optimal condition in order to reduce the negative perceptions of the other group in the conflict. This process, of course, is extraordinarily challenging because some of the conditions (e.g., equal status) between groups are extremely hard to accomplish, especially over a short time. Alongside the challenge of accomplishing such conditions as equal status in a short time, some previous research indicates that intergroup contact and threat may function differently between groups of differing status (McKeown & Taylor, 2017). There would be likely be situations in which groups of unequal status come into contact, and the question of how to best improve intergroup relations in this situation remains. Aberson et al. (2020) noted that there are additional challenges because there is a positive-negative contact asymmetry with negative contact increasing prejudice more than positive contact decreases it. While a focus on the type of outgroup contact may be important in improving intergroup relations, there are major challenges to overcome and many of those challenges are to systems and statuses that are difficult to change in the short term.

4.3.4 Political Ideology and Threat Perception

Research into intergroup contact and maximizing differences can provide some insight into our findings with threat and the Motive Bias. However, it is also interesting to directly consider the manipulations that we tested, and the participants. Two of the three manipulations were replications of successful manipulations in published studies while the third was a variation of the manipulation used in Experiments 2a and 2b. Yet, these manipulations were unsuccessful in inducing high threat within our participant groups overall.

When the data were split by political affiliation, it became clearer why the threat manipulation was overall nonsignificant and seemingly unsuccessful. Participants who ascribed to different political ideologies tended to either respond oppositely to each other and they cancelled each other out or their responses to the manipulation were not strong enough to be significant. These group differences may be one avenue of research to explore further.

Overall, those who ascribe to different political ideologies, whether Conservative or Liberal, tend to respond differently to threats. We explored the previous literature and found that Conservatives tend to be more likely to attend to threats (Dodd et al., 2012; Hibbing et al., 2014; Oxley et al, 2008), show heightened threat activity (Vigil, 2010), indicate greater neural sensitivity to threat (Jost & Amodio, 2012), and show more responsiveness to threats (Jost, Stern, et al., 2017; Nail et al., 2009; Thorisjottir & Jost, 2011). Those who ascribe to conservative or liberal ideologies also show differences in characteristics that may increase threat perception and lead to more responsiveness to threats, such as uncertainty orientation, need for cognitive closure, intolerance of uncertainty, and intolerance of ambiguity (Rosen et al., 2014). In the two experiments from Chapter 3 using the threat items as the threat manipulation and the stereotype scale as the control condition, a significant effect of threat was observed in the first experiment (2a), but this was not replicated in the second experiment. In the first experiment, there was a significant effect of political alignment in which Republicans responded with less threat in the High Threat condition, however, this effect was not replicated in the second experiment (2b). In the three experiments using the editorial threat manipulation, we never observed a significant effect of threat, but we did observe a Threat x Political Alignment interaction in 2 of the 3 experiments (Experiments 1 and 3b). In these two experiments, Republicans responded with more threat while Democrats responded, unexpectedly, with less threat in the High Threat condition. In general, the

editorial threat manipulations matched the literature while the scale threat experiments did not, though there was little consistency throughout these experiments so conclusions are very difficult to make from them.

4.4 Limitations

Within each of the previous chapters, we considered some of the limitations related to individual study design, potential future directions, and individual methodological considerations. There are also some limitations that may be considered across chapters. The measures that we used in each of the studies may have been too explicit, especially the General Threat measures used to test the threat manipulations in Chapter 3. If the General Threat measure was too obvious, participants may have responded in ways they would not have had the measures been more implicit. This might explain why Democrats responded with less threat in the High Threat conditions of Experiments 1, 3a, 3b or equal levels of threat in Experiments 2a, 2b, and 4, or why Republicans responded with less threat in the High Threat conditions of Experiments 2a & 2b. We acknowledge this as a possibility. While we make this acknowledgement, the published studies by Morrison and Ybarra (2008; 2009) had used similar measures to test their threat measures prior to using them in their main studies with social dominance orientation. Thus, we had good reason to expect that we could use the same measures while testing the threat manipulations. The other issue was that at the time that we had conducted the experiments implicit measures of threat did not exist, so we would have had to spend a substantial amount of time creating and testing the implicit measure at the same time we were testing the threat manipulations (March et al., 2020). There is also the possibility that our threat manipulation was simply unsuccessful, and had we found a reliable measure, we may have observed results similar to those of Chapter 2. While neither experiment using the threat manipulation and Motive Bias were significant, we did observe a

similar pattern in 1 of the 2 experiments. With these considerations, it may be that a more subtle measure of perceived threat could be useful to explore in future research.

Along similar lines, a large amount of research indicates Republicans and Democrats respond differently to threats or that Republicans tend to be more responsive to threat, both threats to one's group and other types of threats. It may be that other measures of threat, such as measures of other types of physical threats could reveal these differences more reliably within our paradigm. Our focus on Realistic and Symbolic threat is partially based in our theoretical framework of Intergroup Threat Theory (ITT), and partially with the thought that these types of threat are more likely to be encountered in daily life between and among groups, and are most commonly studied in research on intergroup threats (Stephan & Stephan, 2016). However, threat research encompasses other subtypes such as identity, physical, mortality, and more. A closer examination into these subtypes may help clarify how threat relates to bias even more.

Another potential limitation to explore within the study design is a consideration of the sample sizes within Chapter 3 testing the 3 different threat manipulations. Experiment 1 included a relatively small final sample of $n = 61$, and results indicated it was unsuccessful in manipulating threat. Experiments 2a, 2b, 3a, 3b, and 4 were also unsuccessful with larger sample sizes, with their differing threat manipulations. A priori power analyses, based in Morrison and Ybarra's (2008; 2009) findings, indicated that at least 66 participants would be adequate for the expected effect sizes with all our threat manipulations. Even with these power analyses, it is possible that a larger sample size could have detected differences within our groups, and that the sample was underpowered. However, considering the tiny effect sizes found within our experiments ($\eta_p^2 = .024$ Experiment 1; $\eta_p^2 = .003$ Experiment 2; $\eta_p^2 = .001$

Experiment 3) and the sample sizes required to detect those effects, we instead continued to test and explore different Threat Manipulations.

4.4.1 Use of Measures

One question to be explored further is why the threat manipulation measure used in Experiments 4, 5a, and 5b (Chapter 3) did not produce differences in the outcome measure. As discussed in Chapter 3, Republicans and Democrats show differences on their responses to the items for the Threat Scale manipulation and the Control condition. When examining the ratings of the scale items, Republicans responded with much more threat on the Threat Scale items compared to the Control items while Democrats responded with less threat on the Threat Scale items compared to the Control items. This analysis served as a manipulation check that participants were responding differently to the scale items. The main issue for these experiments (4, 5a, and 5b) was that Republicans and Democrats were responding in opposite directions as opposed to the expected responses. We expected Republicans to respond with more threat in the High Threat condition and Democrats to respond with more threat in the high threat condition, but less than Republicans or equal amounts of threat in the High Threat versus the Control condition, and not less threat. Perhaps a different measure of perceived threat would be useful to explore.

Our bias measure has been supported in both Chapters. Regression analyses demonstrated significant Motive Asymmetry Bias across all studies (1 & 2) of Chapter 2 and experiments (5a and 5b) of Chapter 3. The Asymmetry Bias measure that we used was an explicit measure, yet our explicit measure of perceived threat did relate significantly to this explicit measure of the asymmetry bias, though only in how the outgroup was viewed. Thus, these explicit measures did produce results in line with expectations while the explicit measure of general threat did not. It would be interesting to test in follow up research whether

a more implicit measure of the motive asymmetry bias could 1) be developed and 2) whether it would replicate the results of the explicit motive bias measure. This could help shed light on this bias and may help us to develop a better threat manipulation (Bruneau & Saxe, 2010; Greenwald et al., 2003).

4.4.2 Approaches and Groups

This thesis begins to add to our understanding of how perceived threat relates to the Motive Bias, a bias that includes assessment of ingroup bias and outgroup bias. It seems that perceived threat increases the Motive Bias through how the outgroup is seen, and this pattern is consistent whether measured at one time point or longitudinally. The ingroup does not alter how it sees itself when feeling more threatened (with realistic and symbolic threat). It may be that a focus on the outgroup could be beneficial focus for intergroup relations.

4.5 Future Directions

The main line of inquiry throughout this thesis is whether, and if so in what way, perceived threat relates to the Motive Bias with groups in conflict. The previous section explores some of the limitations of this research across chapters. One aspect not considered as closely within each chapter is our consistent finding that the Motive Bias does exist and is consistently found within and between the groups. As the focus of this thesis is threat and how it influences the Motive Bias we did not consider this further beyond the fact the Motive Bias is supported. However, as this is a relatively new concept (coined by Waytz et al. (2014)), and the findings have been so robust, it is worthwhile to consider next steps relating to this. Future research could explore the best way to educate more widely on this phenomenon to help decrease bias.

4.5.1 Differences and Threat

The previous section explored some of the research around intergroup differences and threat. Future research could explore exactly how, and in what situation(s) differences between groups are made salient and seen as threatening. As individuals come together to form groups with others they see as like-minded or similar (Shellhaas & Dovidio, 2016), this implies the existence of groups that are not like-minded or similar (and by definition, different). The solution would not be to disband groups, nor to ignore differences, but to find a way to alter the perception that differences are threatening. There has been some research into two solutions of bringing together groups, with their differences (a dual identity approach that focuses people on their ingroup identity while also making salient the outgroup). A dual identity manipulation may reduce the Motive Asymmetry Bias and it would be interesting to test whether it reduced this bias by reducing negativity to the outgroup only or whether it also changed participants ratings of the ingroup to be less biased towards positive ratings.

Considering Wiesel and Böhm's (2015) findings that outgroup derogation was the "predominant behavioural motivation" for ingroup members' behaviours in conflict, when the cost of these was not blatant harm to the outgroup, there is some support for further research into our findings that outgroup ratings may be the mechanism which drives the effect found. The most reliable findings from Chapter 2, that the outgroup ratings drove the increase in Motive Bias, could be later explored using modified Intergroup Prisoner's Dilemma – Maximizing Differences (IPD-MD) similarly to Halevy, Bornstein, and Sagiv (2008). We could also explore implicit measures of threat, and whether an implicit measure of the Motive Bias could be developed. If so, these could be used within the IPD-MD and could help tease apart whether the view of the outgroup actually drives this effect.

The experiments within Chapter 3 explored briefly some individual differences (political affiliation) as they could relate to our main finding that the view of the outgroup is what seems to "drive" the difference in Motive Bias as perceived threat increases. While this exploration was driven by post-hoc questions around our results and curiosity as to whether some individual differences could have driven what we viewed as strange results, it could be useful to explore this further. Future research could focus more explicitly on these individual differences, and explore whether or not individual differences actually do matter in the rating of motives for being in conflict. Intergroup Threat Theory also includes an element of intergroup anxiety (Stephan & Renfro, 2002), which was not a focus of our study. However, considering the relationship between intergroup anxiety, and how there could be individual differences in this, it may be worthwhile to also include this in future research. As intergroup anxiety is now considered an antecedent to threat, perhaps it could be worthwhile to zoom out even more and explore whether it is intergroup anxiety that also relates more to perceived threat, and whether that whole relationship changes how the Motive Bias is expressed or felt.

As we have an idea of what the relationship may be between measured threat and the Motive Bias, we could test this model using SEM, while adding in a measure of implicit threat. Regress measures of perceived threat, both implicit and explicit, onto ingroup ratings, outgroup ratings, and the two combined into one Motive Preference score. If we compare the relationship of ingroup ratings and Motive Preference to outgroup ratings and Motive Preference, this could help show whether one or the other better predicted/explained the Motive Preference Score. One strength of this is that threat could also be investigated in whether it relates more to the ingroup ratings, or the outgroup ratings to confirm or clarify our findings.

4.6 Conclusion

A great deal of evidence shows that humans are social creatures, have a strong need to belong to groups, and are drawn to others who are seen as similar. This naturally creates splits and groups for whom more affinity is felt and groups who may be perceived as threatening. Disbanding groups or trying to downplay the importance of being a part of a group is not a feasible solution, nor would it be beneficial in the long run. This is especially true considering the work on Intergroup Threat Theory.

As evidenced by the recent pandemic, even when it is necessary to be separate from most people, we still interact and find ways to belong and be part of different groups – be it through social media, video calling, and other ways to connect. Perceived threat from an outgroup does increase intergroup bias, but that gives some idea on how to move forward and to consider how we can improve relations between and among groups, lessen bias, and improve intergroup relations. This thesis attempts to move the field forward in that direction through an investigation of perceived threat and the Motive Bias with groups in conflict. The main finding comes from Chapter 2 and from experiments 5a and 5b of Chapter 3. We consistently found support for the existence of a large Motive Asymmetry Bias effect and we found that measured threat was related to a larger bias. This effect was mainly observed on ratings of the Other group. Future research could build on these findings to help improve intergroup relations. In the end, there should always be hope.

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Appendices

Appendix A

Perceived Threat from the Other Party Scale

1. The other party holds too many positions of power and responsibility in this country.
   - Disagree Strongly
   - Disagree Moderately
   - Disagree Somewhat
   - Neither Agree nor Disagree
   - Agree Somewhat
   - Agree Moderately
   - Agree Strongly
2. The other party dominate American politics more than they should.
3. When the other party is in positions of authority, they discriminate against my party when making hiring decisions.
4. Too much money is spent on educational programs that benefit the other party.
5. The other party has more economic power than they deserve in this country.
6. The other party receives too much of the money spent on healthcare and childcare.
7. Too <u>little</u> money per student is spent on education for the other party.
8. The tax system favors the other party.
9. Many companies hire less qualified members of the other party over more qualified members of my party.
10. The other party has more political power than they deserve in this country.
11. Public service agencies favor the other party over my party.
12. The legal system is more strict on the other party than on my party.
13. My party has very different values than the other party.
14. The other party has no right to think they have better values than my party.
15. The other party wants their rights to be put ahead of the rights of my party.
16. The other party doesn't understand the way my party views the world.
17. The other party does not value the rights granted by the Constitution (life, liberty, and the pursuit of happiness) as much as my party does.
18. The other party and my party have different family values.
19. The other party doesn't value the traditions of their party as much as my party does.
20. The other party regard themselves as morally superior to my party.
21. The values of the other party regarding work are different from those of my party.
22. Most members of the other party will never understand what members of my party are like.
23. The other party should not try to impose their values on my party.
24. My party does not get as much respect from the other party as they deserve.

Appendix B

Motive Preference Scale

Rate Your Own Party – Positive Motives

- When your party engages in conflict, how much is your party motivated by empathy towards your political party?
  - 1 – Not at all
  - 2
  - 3
  - 4 – Moderately
  - 5
  - 6
  - 7 – Very Much
- When your party engages in conflict, how much is your party motivated by compassion towards your political party?
- When your party engages in conflict, how much is your party motivated by kindness towards your political party?

Rate Your Own Party – Negative Motives

- When your party engages in conflict, how much is your party motivated by hatred towards the other party?
- When your party engages in conflict, how much is your party motivated by dislike towards the other party?
- When your party engages in conflict, how much is your party motivated by disdain towards the other party?

Rate the Other Party – Positive Motives

- When the other party engages in conflict, how much is their party motivated by empathy towards their political party?
- When the other party engages in conflict, how much is their party motivated by compassion towards their political party?
- When the other party engages in conflict, how much is their party motivated by kindness towards their political party?

Rate the Other Party – Negative Motives

- When the other party engages in conflict, how much is their party motivated by hatred towards your party?
- When the other party engages in conflict, how much is their party motivated by dislike towards your party?

- When the other party engages in conflict, how much is their party motivated by disdain towards your party?

Appendix C

Short Form of the Need for Cognition Scale

Instructions: For each of the statements below, please indicate to what extent the statement is characteristic of you. If the statement is extremely uncharacteristic of you (not at all like you) please write a "1" to the left of the question; if the statement is extremely characteristic of you (very much like you) please write a "5" next to the question. Of course, a statement may be neither extremely uncharacteristic nor extremely characteristic of you; if so, please use the number in the middle of the scale that describes the best fit. Please keep the following scale in mind as you rate each of the statements below: 1 = extremely uncharacteristic; 2 = somewhat uncharacteristic; 3 = uncertain; 4 = somewhat characteristic; 5 = extremely characteristic.

1. I would prefer complex to simple problems.

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

3. Thinking is not my idea of fun. a

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

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

6. I find satisfaction in deliberating hard and for long hours.

7. I only think as hard as 1 have to. a

8. I prefer to think about small, daily projects to long-term ones?

9. I like tasks that require little thought once I've learned them?

10. The idea of relying on thought to make my way to the top appeals to me.

1 I. I really enjoy a task that involves coming up with new solutions to problems.

12. Learning new ways to think doesn't excite me very much?

13. I prefer my life to be filled with puzzles that I must solve.

14. The notion of thinking abstractly is appealing to me.

15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.

16. 1 feel relief rather than satisfaction after completing a task that required a lot of mental effort?

17. It's enough for me that something gets the job done; I don't care how or why it works?

18. I usually end up deliberating about issues even when they do not affect me personally.

Note. From "'The Efficient Assessment of Need for Cognition," by J. T. Cacioppo, R. E. Petty, and C. F. Kao, 1984, *Journal of Personality Assessment, 48,* pp. 306-307. Copyright 1984 by Lawrence Erlbaum. The number of response options on the scales used across studies has typically ranged from five to nine, and the labels for these response options have varied from agreement—disagreement to extremely uncharacteristic-extremely characteristic. Although these variations across studies may influence the total scores obtained, they have not had dramatic effects on the relationships between interindividual variations in need for cognition and other variables in a given study.

a Reverse scored.

Appendix D

Measures of Political Affiliation

Political Alignment

What political party do you feel more closely aligned with?

- Republican
- Democrat

Political Orientation

Please rate your, personal political orientation

- Extremely Liberal
- Moderately Liberal
- Somewhat Liberal
- Moderate
- Somewhat Conservative
- Moderately Conservative
- Extremely Conservative

Appendix E

Demographics and Filler Questions

Demographics

Please indicate your gender by using the mouse to click on the appropriate box.

- Female
- Male

Please indicate your race or ethnicity.

- Southeast Asian
- White
- African American/Afro-Caribbean
- Middle Eastern or North African
- Pakistani
- Indian or Indian Sub-continent
- Native American
- Pacific Islander
- Latino or Hispanic
- Other

Please type in your age

In what country do you live?

- USA
- UK
- Other

Filler Questions

Mathematics Questions: 50 x 7 = ____; 13 + 24 = ___

Appendix F

Post Hoc Exploration by Presentation Order for Chapter 2

Study 1

The counterbalanced study design accounted for any order effects of presentation of the Threat measure and the Motive Bias measure. However, since the results indicated neither a full negativity bias, nor a full group threat effect, we were interested in analysing and visualising the data by presentation order to further examine if there were any trends. We split the groups by presentation of the threat and bias measures (i.e., Threat measured first or second), and re-ran the analyses on each subsample. When Threat was presented first, there was a significant interaction of Party Focus and Threat level on Motive Preference, $n = 312$, $R^2 = .085$, $\beta = .254$, $t = 5.339$, $p < .001$, (see Figure F1). The Threat simple slope for the Own Party condition was not significant ($R^2 < .003$, $\beta = .083$, $p = .294$), but the Threat slope was significant for the Other Party condition ($R^2 = .192$, $\beta = -.439$, $p < .001$). Once again, neither hypothesis was supported because the Own Party slope was not significant, but the trend and direction of the slopes were closer to a group threat effect. When Threat was presented after the Motive Bias measurement, there was a significant Party Focus x Threat interaction on Motive Preference, $n = 323$, $R^2 = .085$, $\beta = .254$, $t = 5.339$, $p < .001$, (see Figure F2). The Threat simple slope for the Own Party condition was not significant ($R^2 < .005$, $\beta = -.098$, $p = .187$), while the slope was significant for the Other Party condition ($R^2 = .242$, $\beta = -.492$, $p < .001$). Neither hypothesis was supported, even though the overall pattern of interaction was similar to a negativity bias (see Figure F2).

Figure F1

Party Focus by Standardized Threat Interaction on Motive Preference – Threat Measure Presented Before Motive Bias Measure

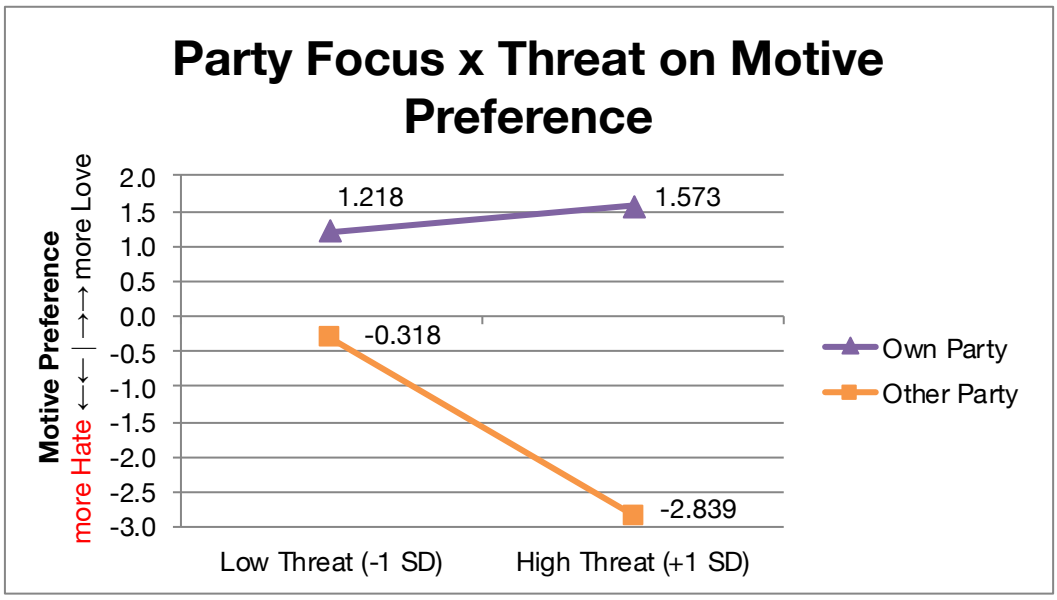
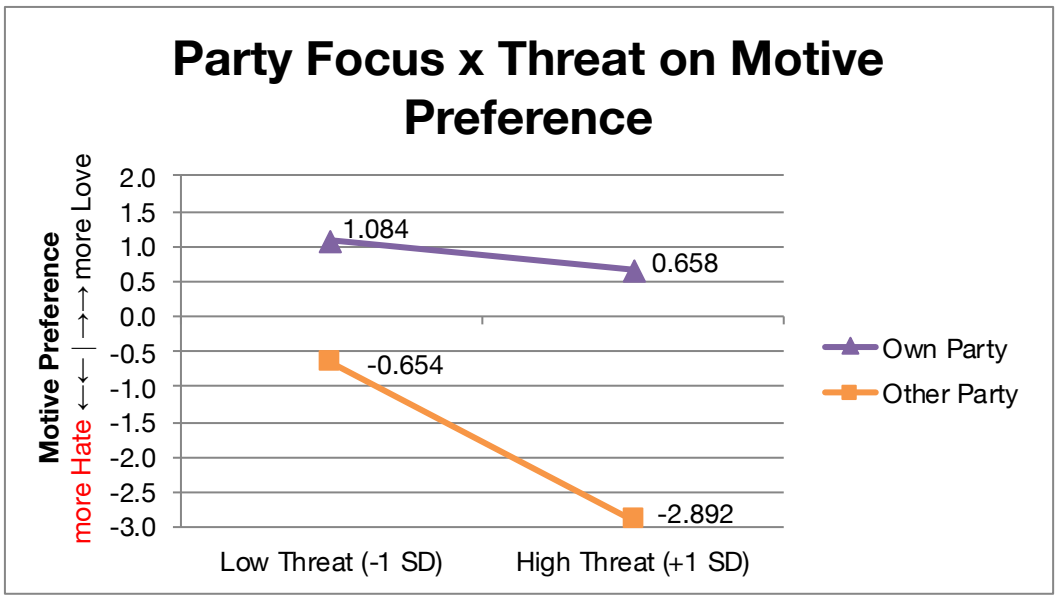


Figure F2

Party Focus by Standardized Threat Interaction on Motive Preference - Threat Measure Presented After Motive Bias Measure



Study 2, Time 1

Even though the counterbalanced design accounted for order effects, we were interested in visualising the effects by presentation order because we did not observe either a negativity bias or a group threat bias pattern of results. We conducted analyses on each Order subsample (i.e, Threat first or Motive Bias first). When considering only participants that received the threat measure first, there was a significant Party Focus x Threat interaction on motive preference, $n = 309$, $R^2 = .056$, $\beta = .199$, $t = 4.236$, $p < .001$. Once again, the Threat slope for Own Party was not significant ($R^2 < .001$, $\beta = .047$, $p = .561$) while the slope for Other Party was significant ($R^2 = .145$, $\beta = -.381$, $p < .001$), which revealed neither a negativity bias nor a group threat bias (see Figure F3). When considering only participants that received the threat measure second, there was a significant Party Focus x Threat interaction on motive preference, $n = 332$, $R^2 = .056$, $\beta = .199$, $t = 4.23$, $p < .001$. The Threat slope for Own Party was not significant ($R^2 = .001$, $\beta = .008$, $p = .920$) while the slope for Other Party was significant ($R^2 = .162$, $\beta = -.402$, $p = <.001$; see Figure F4).

Figure F3

Party Focus by Standardized Threat Interaction on Motive Preference - Threat Measure Presented Before Motive Bias Measure. Study 2, Time 1

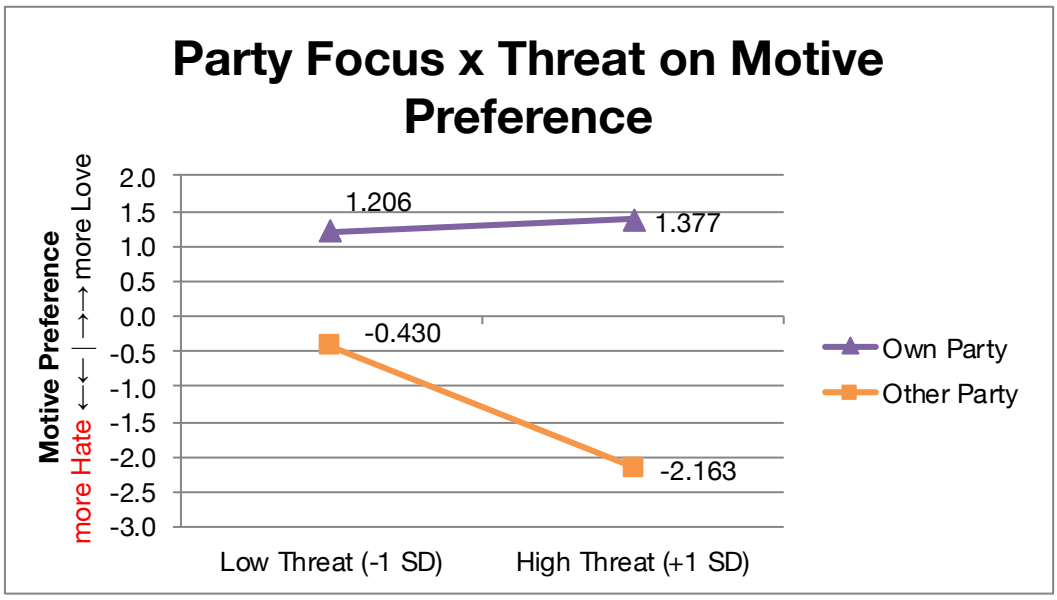
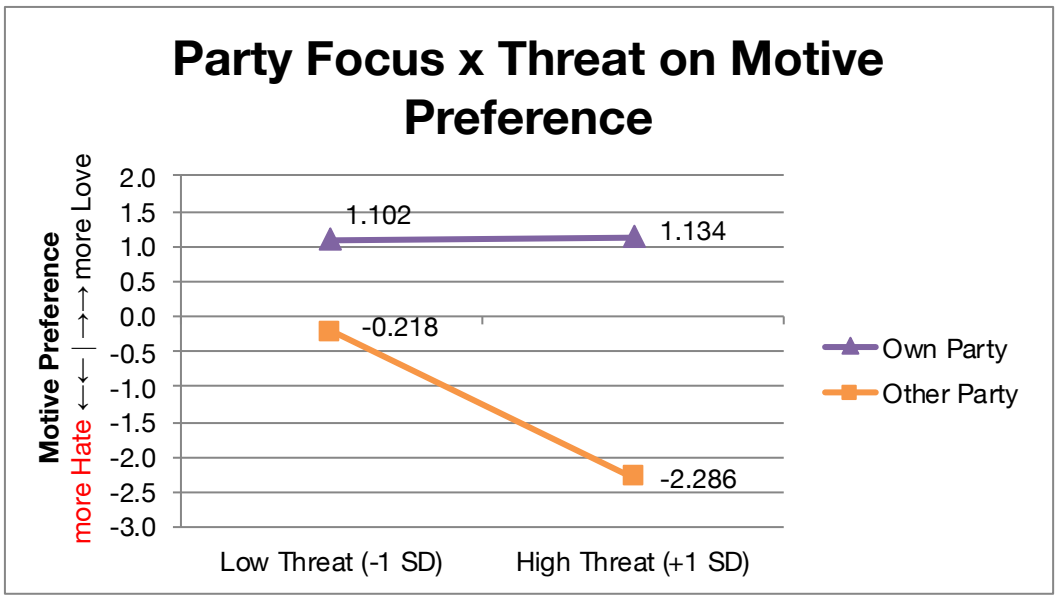


Figure F4

Party Focus by Standardized Threat Interaction on Motive Preference, Threat Measure Presented After Motive Bias Measure. Study 2, Time 1



Study 2, Time 2

Given that we observed neither a Negativity Bias nor a Group Threat Effect, we were interested in visualising the data by counterbalanced threat presentation. When considering only participants that received the Threat measure first, there was a significant Party Focus x Threat interaction on motive preference, $n = 241$, $R^2 = .03$, $\beta = .142$, $t = 2.712$, $p = .007$. Neither a negativity bias nor a group threat effect was observed. The Threat slope for Own Party was not significant ($R^2 = .003$, $\beta = -.058$, $p = .535$) while the slope for Other Party was significant ($R^2 = .120$, $\beta = -.347$, $p < .001$; see Figure F5). When considering only participants that received the Threat measure second, there was a significant Party Focus x Threat interaction on motive preference, $n = 259$, $R^2 = .046$, $\beta = .175$, $t = 3.515$, $p = .001$. The Threat slope for Own Party was not significant ($R^2 = .008$, $\beta = .088$, $p = .322$) while the slope for Other Party was significant ($R^2 = .113$, $\beta = -.336$, $p < .001$; see Figure F6).

Figure F5

Party Focus by Standardized Threat Interaction on Motive Preference - Threat Measure Presented Before Motive Bias Measure. Study 2, Time 2

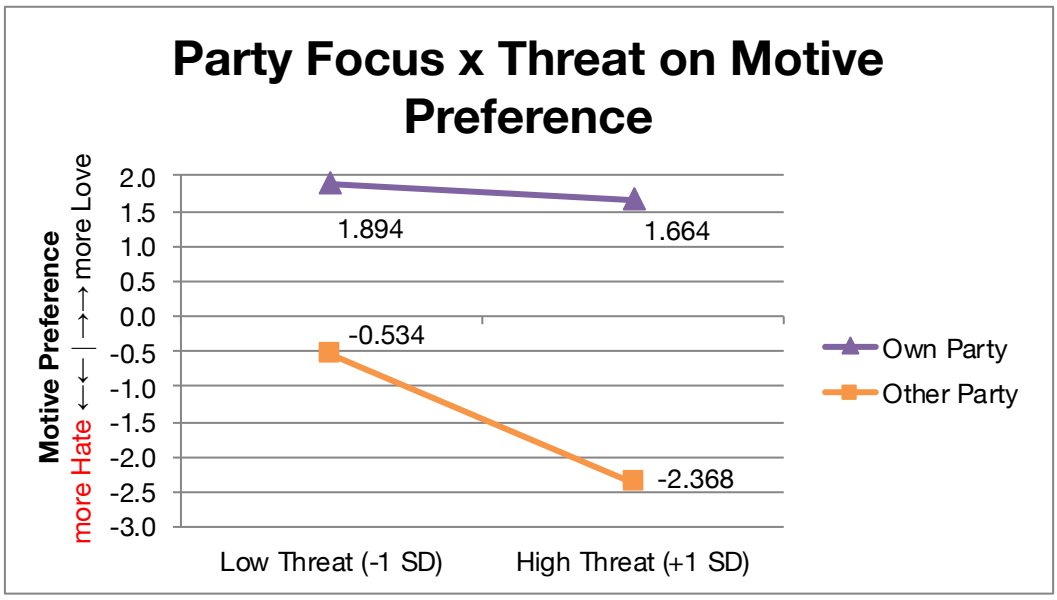
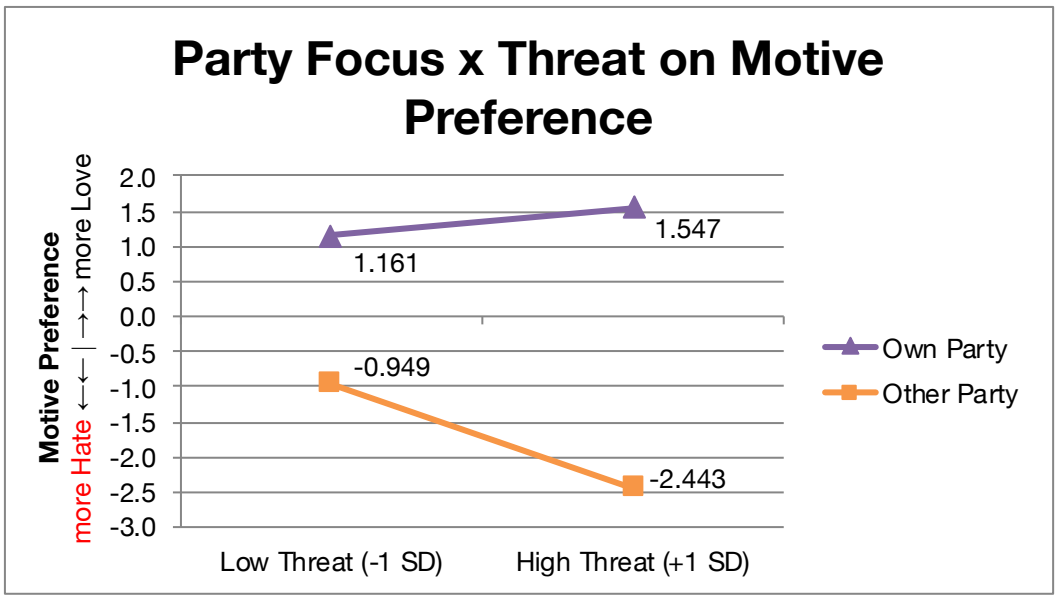


Figure F6

Party Focus by standardized Threat Interaction on Motive Preference - Threat Measure Presented After Motive Bias Measure. Study 2, Time 2



Appendix G

Social Identification Measure

I identify strongly with other people in my political party.

Being a member of my political party is an important part of who I am.

I feel strong ties with other people in my political party.

I feel a sense of solidarity with other people in my political party.

Disagree Strongly
Disagree Moderately
Disagree Somewhat
Neither disagree or agree
Agree Somewhat
Agree Moderately
Agree Strongly

Appendix H

Table of Threat Manipulations Explored for Chapter 3

Table of Threat Manipulations Explored for Chapter 3

Author (Date)	Threat Manipulation	Type of Threat	N	Significance	Effect Size
Bromgard & Stephan (2006)	Profile stating belonging to either the Gay, Lesbian, and Friends Club of NMSU or NMSU Student Life Committee	Symbolic threat: specifically gays pose to non stigmatized individuals	47	$p < .05$	
Morrison & Ybarra (2009)	Newspaper editorials stating positive outcome for outgroup, and negative for in-group, with Democrats as the outgroup	Symbolic	50		Statistics not reported
	Newspaper editorials with Republicans as the outgroup	Symbolic	32		
	Newspaper editorial referencing relative ingroup and outgroup political parties in the US	Symbolic	49 (pretest)	$p < .07$	$\eta_p^2 = .048$ (*Cohen's d* = .450)
		Symbolic	89 (study)		

Author (Date)	Threat Manipulation	Type of Threat	N	Significance	Effect Size
Craig and Richeson (2014)	Manipulation of racial-shift salience to see if it affects political leanings and ideology (more threat, greater shift)	Symbolic	369	$p = .081$	
	Group-status threat **measured** from - Manipulation of racial-shift salience and how it influences support of conservative policy	Symbolic	620	$p < .001$	$\eta_p^2 = .03$
	Group-status threat **manipulated** from - Manipulation of racial-shift salience and how it influences support of conservative policy - 3 conditions: racial shift, control, or one designed to allay concern about group status	Symbolic and Realistic	3a: 170 3b: 188	3a: $p = .008$ 3b: $p = .023$	3a: $\eta_p^2 = .06$ 3b: $\eta_p^2 = .04$
Haas and Cunningham (2014)	Open-ended questions based on the mortality salience manipulation	Realistic/Existential	83	$p < .05$	
	Scenario where a person was trying to break into the home or not - imagine how you would feel	Realistic/Physical	144	$p < .05$	

Author (Date)	Threat Manipulation	Type of Threat	N	Significance	Effect Size
Haas (2016)	Asked to imagine and write about a scenario that had either high (home invasion) or low (person ringing the doorbell) threat; and high (outside the door) or low (in the house) uncertainty	Perceived; threat and uncertainty	210		ß = .034
	Asked to imagine and write about a scenario that had either high (home invasion) or low (person ringing the doorbell) threat; and high (trying to get in/unsure who it is/unsure who it is but could be the mailman) or low (in the house/friend for the birthday/mailman) uncertainty; added a third positive condition	Perceived; threat and uncertainty	343		
Corley et al. (2016)	Video shown to participants that showed either a strong reaction to the task (high threat) or neutral reaction to the task (low threat) - the task was the cold water task	perceived, realistic; pain	132(participants) 128(partners)	Participants: p = .02 Partners: p = .001	Participants: η_p^2 = .044 Partners: η_p^2 = .091
Morrison & Ybarra (2008)	"Opinion survey" with different items in the experimental and control groups which correspond to an increase in perceived threat	Perceived realistic	51	p = 0.01	Study 2: *Cohen's d* = 0.761

Author (Date)	Threat Manipulation	Type of Threat	N	Significance	Effect Size
					Study 3: *Cohen's d* = 1.20
Morrison et al. (2009)	Exposure to a full-color photograph of the front-runner presidential candidate of either the in-group (low threat) or outgroup (high threat)	Perceived	28	$p < .05$	
Zhu et al. (2015)	Participants read an article that either stating that high SES Chinese thought it a waste of time for low SES Chinese to attend university because it was a waste of time (high threat) or the geographic location of a province (low threat) - affront to thought that low SES could increase status through hard work	Symbolic	73	$p < .001$	$\eta^2 = .332$

Author (Date)	Threat Manipulation	Type of Threat	N	Significance	Effect Size
	Participants read an article that either stating that high SES Chinese were more likely to receive educational resources and find a well-paying job more easily than low SES Chinese (high threat) or the geographic location of a province (low threat)	Realistic	74	$p < .001$	$\eta^2 = .436$
Greenstein et al. (2016)	Participants viewed a ring moving towards a dot; in the high threat condition they were told the dot was a store clerk and the ring was a robber going to attack the clerk; in the low threat condition they were told the dot was a store clerk and the ring was a customer taking an item to hand to the clerk to purchase.	Realistic	34 (norming) 68(experiment)	$p < .001$ (norming)	

Appendix I

Editorial Threat Manipulation

Low Threat

We are testing your attention and memory regarding a written editorial paragraph when other interfering information is also presented. We are piloting this for another related study to be conducted at a later date. You will be asked to answer some questions about the paragraph after reading it.

This is a short excerpt from the editorial in a major US newspaper that has been written by an American citizen. Please read it carefully because your memory of it will be tested.

The U.S. is at a key juncture in its history, and Americans are facing many issues that must be examined. We have made gains in our status and resources as well as our fundamental values. We have also gained jobs recently and have kept our portion of public benefits. Overall, Americans have coexisted side-by-side and relatively peacefully for decades. The important issues that exist today will need to be resolved over the coming years, and this will require the interaction of every American. How this interaction unfolds will be important for the U.S. …

High Threat

We are testing your attention and memory regarding a written editorial paragraph when other interfering information is also presented. We are piloting this for another related study to be conducted at a later date. You will be asked to answer some questions about the paragraph after reading it.

This is a short excerpt from the editorial in a major US newspaper that has been written by an American citizen. Please read it carefully because your memory of it will be tested.

The U.S. is at a key juncture in its history, and Americans are facing many issues that must be examined. We need to protect our fundamental beliefs, values, and resources more than ever. Our jobs are being taken by outsiders and we are losing out on public benefits. Overall, the absence of a true balance of belief systems can ultimately lead to divisiveness. The important issues that exist today will need to be resolved over the coming years, and this will require the interaction of every American. How this interaction unfolds will be important for the U.S. …

Appendix J

General Threat Measure

For each of the following statements, please indicate how much you agree or disagree with the statement.

1. I feel a threat to my beliefs and values.

- Disagree Strongly
- Disagree Moderately
- Disagree Slightly
- Neither Agree nor Disagree
- Agree Slightly
- Agree Moderately
- Agree Strongly

2. I feel a threat to my power and economic resources.

3. I feel a threat to my group's resources and power within society.

4. I feel a threat to my group's beliefs, values, and resources.

Appendix K

6-Item Symbolic and Realistic Threat Measure

Symbolic threat item

1. Outgroups pose a threat to my group's beliefs and values.
2. Outgroups have very similar values to my group.
3. Outgroups want their rights to be put ahead of the rights of my group.

Realistic threat item

4. Outgroups are a threat to my group's power and status.
5. Outgroups have more economic power than they deserve in this country.
6. The legal system is stricter with Outgroups than with my group.

Appendix L

Memory Control Questions

Experiment 1, Experiment 3a, Experiment 3b

Did the essay discuss the idea that ...

... Americans have coexisted side-by-side and relatively peacefully.

... Americans have made gains in their status and resources, as well as their values.

... Americans have gained jobs recently, and have kept their portion of public benefits.

... Americans need to protect their party's fundamental beliefs, values, and resources.

...Americans' jobs are being taken by outsiders, and they are losing out on public benefits.

...the absence of a true balance of belief systems can ultimately lead to divisiveness.

Experiment 2a

Did the Essay discuss the idea that…

…the values and beliefs of immigrants regarding work are basically quite similar to those of most Americans.

…immigrants should <u>not</u> have to accept American ways.

…immigration has increased the tax burden on Americans.

…immigrants are insecure.

…immigrants are unreliable.

…immigrants are clumsy.

Experiment 2b

Did the Opinion Survey discuss the idea that…

…the values and beliefs of immigrants regarding work are NOT similar to those of most Americans.

…immigrants should not have to accept American ways.

…immigration has increased the tax burden on Americans.

…immigrants are insecure.

…immigrants are unreliable.

…immigrants are clumsy.

Experiment 4, Experiment 5a, Experiment 5b

Did the Opinion Survey discuss the idea that…

…Immigration is undermining American culture.

…Immigrants are <u>not</u> displacing American workers from their jobs.

…The values and beliefs of immigrants regarding work are basically quite similar to those of most Americans.

…American culture is overall similar across different businesses.

…Workers have a particular role in each job.

…Most Americans have a value and belief system regarding work.

Appendix M

Negative Stereotype Correlations

Experiment 2a Pilot

Stereotypes used: proud, cowardly, insecure, unreliable, clumsy, restrictive

1) Lowest overall correlation with threat measure – stereotype items

	Stereotype1	Stereotype2	Stereotype3	Stereotype4	Stereotype5	Stereotype6	Stereotype7	Stereotype8
Threat	-.440**	**-0.034**	-.484**	-.481**	-.523**	-.447**	-.377**	-.453**
SThreat	-.555**	-0.051	-.584**	-.549**	-.504**	-.514**	-.447**	-.531**
Rthreat	-.302*	-0.018	-.352*	-.374**	-.476**	-.344*	-.280*	-.340*

	Stereotype9	Stereotype10	Stereotype11	Stereotype12	Stereotype13	Stereotype14	Stereotype15	Stereotype16
Threat	-.439**	-.427**	**-0.267**	-.461**	-.401**	-.353*	**-0.100**	-.358*
SThreat	-.477**	-.434**	-.339*	-.573**	-.426**	-.441**	-0.134	-.410**
Rthreat	-.359*	-.372**	-0.181	-.321*	-.335*	-0.244	-0.063	-0.277

	Stereotype17	Stereotype18	Stereotype19	Stereotype20	Stereotype21	Stereotype22	Stereotype23	Stereotype24
Threat	-.600**	-.323*	-.301*	-.446**	-.515**	-.366**	-.548**	-.523**
SThreat	-.626**	-.410**	-.375**	-.514**	-.547**	-.463**	-.622**	-.617**
Rthreat	-.510**	-0.219	-0.209	-.341*	-.430**	-0.249	-.427**	-.389**

2) Correlation of mean of 6 stereotype items (proud, cowardly, insecure, unreliable, clumsy, restrictive) with mean of specific threat items, based on individual stereotype item-threat item correlations:

	Threat Items Included	Correlation
Threat6Test	S2, S3r, S5r R3, R4r, R6	-0.262
Threat6Test2	S2, S3r, S5r R3, R4r, R7r	-0.121
Threat6Test3	S3r, S5r, S7r R3, R4r, R7r	0.037

Experiment 2b Pilot

* Only use non-reverse scored threat items *

Stereotypes used: proud, forgetful, insecure, clumsy, restrictive, helpless

Stereotype Items – from pilot study 1	Threat Items Included	Correlation
Proud, cowardly, insecure, unreliable, clumsy, restrictive	S3, S5, S7 R3, R4, R7	-0.459

1) Lower correlations of stereotypes with threat items:

	Stereotype1	Stereotype2	Stereotype3	Stereotype4	Stereotype5	Stereotype6	Stereotype7	Stereotype8
Threat	-.528**	0.047	-.516**	-.285*	-.493**	-.511**	-.546**	-.506**
SThreat	-.535**	0.055	-.520**	-0.258	-.456**	-.478**	-.545**	-.444**
Rthreat	-.497**	0.038	-.488**	-.291*	-.498**	-.511**	-.521**	-.528**

	Stereotype9	Stereotype10	Stereotype11	Stereotype12	Stereotype13	Stereotype14	Stereotype15	Stereotype16
Threat	-.699**	-.608**	-.469**	-.662**	-.606**	-.546**	-.388**	-.563**
SThreat	-.681**	-.615**	-.452**	-.661**	-.529**	-.522**	-.346*	-.547**
Rthreat	-.679**	-.574**	-.459**	-.632**	-.634**	-.537**	-.400**	-.547**

	Stereotype17	Stereotype18	Stereotype19	Stereotype20	Stereotype21	Stereotype22	Stereotype23	Stereotype24
Threat	-.607**	-0.201	-.683**	-.635**	-0.197	-.626**	-.327*	-.572**
SThreat	-.565**	-0.213	-.620**	-.577**	-0.173	-.612**	-.312*	-.530**
Rthreat	-.609**	-0.182	-.696**	-.647**	-0.205	-.606**	-.322*	-.575**

2) Correlations of mean of 6 new stereotype items and mean of 6 non-reverse scored threat items

Stereotype Items	Threat Items Included	Correlation
Proud, forgetful, insecure, clumsy, restrictive, helpless	S3, S4, S5 R3, R6, R7	-0.293

Appendix N

Stereotype Scale Manipulations

Study 2a

High Perceived Threat – All 6 items randomized

For each of the following statements, please indicate how much you agree or disagree with the statement.

Perceived Symbolic (all Symbolic and Realistic items presented in a random order)

7. The values and beliefs of immigrants regarding work are NOT similar to those of most Americans.
    - Strongly Disagree
    - Moderately Disagree
    - Somewhat Disagree
    - Neither Disagree nor Agree
    - Somewhat Agree
    - Moderately Agree
    - Strongly Agree
8. The values and beliefs of immigrants regarding family issues and socializing children are NOT similar to those of most Americans.
9. Immigrants should not have to accept American ways.

Perceived Realistic

10. Immigration has increased the tax burden on Americans.
11. Immigrants are displacing American workers from their jobs.
12. The quality of social services available to Americans decreased due to immigration.

Low Threat/Control – All 6 items randomized

Please indicate how much you agree or disagree with the following statements.

7. Immigrants are proud.
    - Strongly Disagree
    - Moderately Disagree
    - Somewhat Disagree
    - Neither Disagree nor Agree
    - Somewhat Agree
    - Moderately Agree
    - Strongly Agree

8. Immigrants are cowardly
9. Immigrants are insecure
10. Immigrants are unreliable
11. Immigrants are clumsy
12. Immigrants are restrictive

Study 2b

High Perceived Threat – All 6 items randomized

For each of the following statements, please indicate how much you agree or disagree with the statement.

Perceived Symbolic (all Symbolic and Realistic items presented in a random order)

7. The values and beliefs of immigrants regarding work are NOT similar to those of most Americans.
    - Strongly Disagree
    - Moderately Disagree
    - Somewhat Disagree
    - Neither Disagree nor Agree
    - Somewhat Agree
    - Moderately Agree
    - Strongly Agree
8. The values and beliefs of immigrants regarding family issues and socializing children are NOT similar to those of most Americans.
9. The values and beliefs of immigrants regarding moral and religious issues are NOT compatible with the beliefs and values of most Americans. .

Perceived Realistic

10. Immigration has increased the tax burden on Americans.
11. Social services have become less available to Americans because of immigration.
12. The quality of social services available to Americans decreased due to immigration.

Low Threat/Control – All 6 items randomized

Please indicate how much you agree or disagree with the following statements.

7. Immigrants are proud.
    a. Strongly Disagree
    b. Moderately Disagree

    c. Somewhat Disagree
    d. Neither Disagree nor Agree
    e. Somewhat Agree
    f. Moderately Agree
    g. Strongly Agree
8. Immigrants are forgetful
9. Immigrants are insecure
10. Immigrants are restrictive
11. Immigrants are clumsy
12. Immigrants are helpless

Appendix O

Hong Reactance Scale

Hong & Faedda (1996) – Refined 11-item

1. Regulations trigger a sense of resistance in me.
2. I find contradicting others stimulating.
3. When something is prohibited, I usually think “that’s exactly what I am going to do.”
4. I consider advice from others to be an intrusion
5. I become frustrated when I am unable to make free and independent decisions.
6. It irritates me when someone points out things which are obvious to me.
7. I become angry when my freedom of choice is restricted.
8. Advice and recommendations induce me to do just the opposite.
9. I resist the attempts of others to influence me.
10. It makes me angry when another person is held up as a model for me to follow.
11. When someone forces me to do something, I feel like doing the opposite.

Factors:

- Emotional Response Toward Restricted Choice: 5, 6, 7
- Reactance to Compliance: 1, 2, 3
- Resisting Influence From Others: 9, 10, 11
- Reactance Toward Advice and Recommendations: 4, 8

Appendix P

Threat Scale Manipulation

Original	Neutral
1. Immigrants should learn to conform to the rules and norms of American society as soon as possible after they arrive.	The rules and norms of American society inform the way in which Americans live their lives.
2. Immigration is undermining American culture	American culture is overall similar across different businesses.
3. The values and beliefs of immigrants regarding work are basically quite similar to those of most Americans.	Most Americans have a value and belief system regarding work.
4. The values and beliefs of immigrants regarding moral and religious issues are not compatible with the beliefs and values of most Americans.	Most Americans have a value and belief system regarding moral and religious issues.
5. The values and beliefs of immigrants regarding family issues and socializing children are basically quite similar to those of most Americans.	Most Americans have a value and belief system regarding family issues and children's socialization.
6. The values and beliefs of immigrants regarding social relations are not compatible with the beliefs and values of most Americans.	Most Americans have a value and belief system regarding social relations.
7. Immigrants should not have to accept American ways.	Businesses should not have to adopt the structures of other similar businesses.
8. Immigrants get more from this country than they contribute.	American workers both contribute and gain from being a part of the American economy.
9. The children of immigrants should have the same right to attend public schools in the United States as Americans do.	All children should have the same right to attend public school.
10. Immigration has increased the tax burden on Americans.	The tax burden on Americans has stayed relatively the same.
11. Immigrants are not displacing American workers from their jobs.	Workers have a particular role in each job.
12. Immigrants should be eligible for the same health-care benefits received by Americans.	Health care benefits are available to eligible workers in the business world.
13. Social services have become less available to Americans because of immigration.	Social services are available to many Americans.
14. The quality of social services available to Americans has remained the same, despite immigration.	The quality of social services available to businesses is the same as others.

15. Immigrants are as entitled to subsidized housing or subsidized utilities (water, sewage, electricity) as poor Americans are.	There is subsidization available for housing and utilities for those in need.

Appendix Q

MANOVA Results Graphs Experiments 5a, 5b

Figure P1

Experiment 5a: Graph of MANOVA Analysis, Threat x Party Focus on Mean Love Score

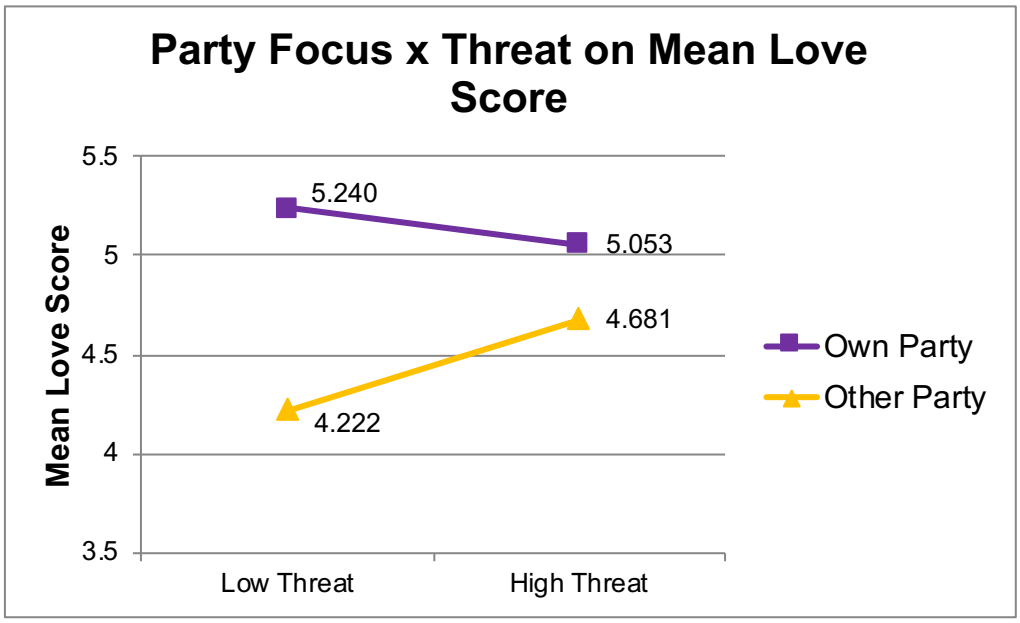


Figure P2

Experiment 5a: Graph of MANOVA Analysis, Threat x Party Focus on Mean Hate Score

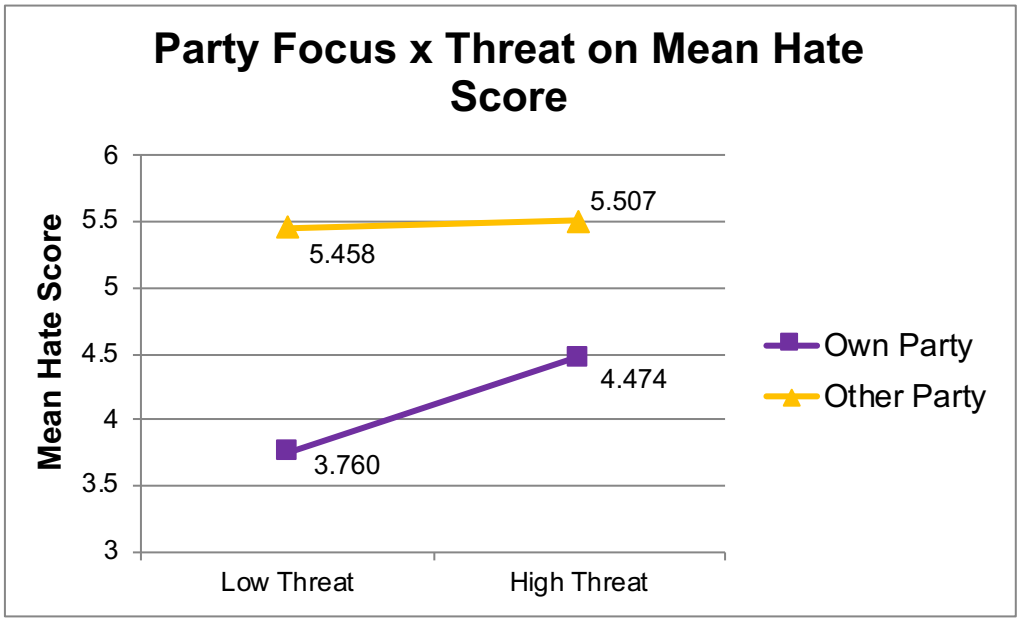


Figure P3

Experiment 5b: Graph of MANOVA Analysis, Threat x Party Focus on Mean Love Score.

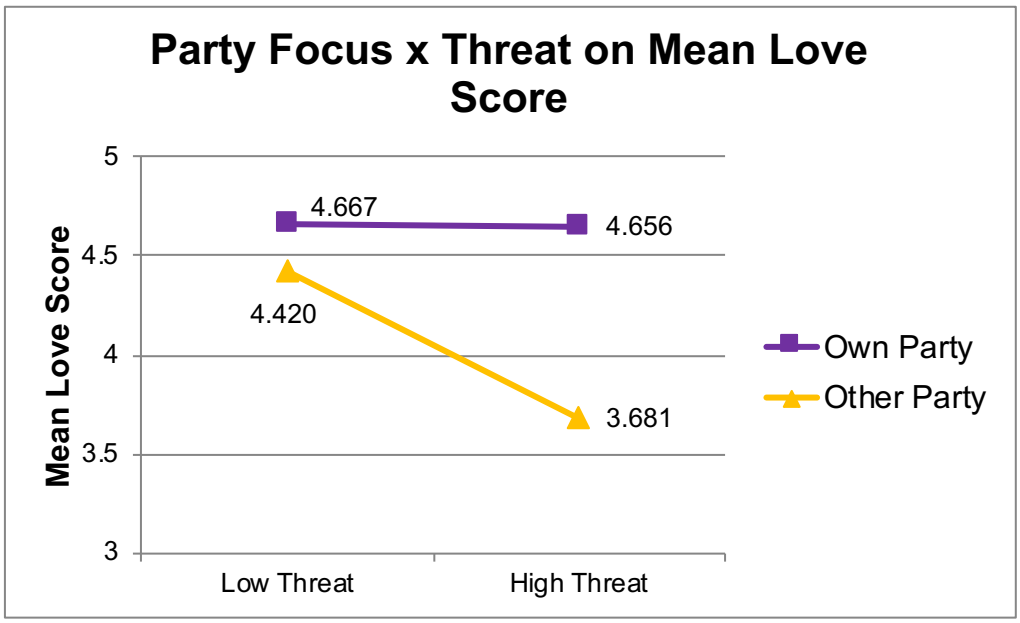


Figure P4

Experiment 5b: Graph of MANOVA Analysis, Threat x Party Focus on Mean Hate Score.