Humiliation and International Conflict Preferences

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Abstract

Politicians and scholars often link humiliation to decisions to initiate and escalate international military conflict, yet the microfoundations underlying this link are under-theorized and untested. Can emotions, like humiliation, actually affect international bargaining? If so, through what mechanisms does humiliation operate? Drawing on studies in neuroscience and experimental psychology, this paper offers two new mechanisms through which humiliation may influence conflict preferences: by decreasing sensitivity to the cost of conflict, and by increasing the salience of potential status loss. This change in preferences shrinks the bargaining range, increasing the probability of bargaining breakdown. I test this theory using both survey and lab experiments that exploit the carryover effects of humiliation on unrelated decisions to isolate its effects on conflict preferences. The results provide the first experimental evidence able to distinguish support for different mechanisms through which humiliation increases conflict preferences.

In the early 1990s, the Chinese government launched the Patriotic Education Campaign, which spread the narrative that foreign powers humiliated and took advantage of China during the 'Century of National Humiliation' from 1839–1949. Scholars have suggested this narrative of humiliation has had serious political consequences, namely by increasing the Chinese government's tendency to escalate international disputes (Callahan 2010; Wang 2012, 96).

The influence of humiliation on international hostility is not limited to China. Otto von Bismarck provoked the Franco-Prussian war, which killed nearly 200,000 people, by editing a telegram to give the appearance that the Prussian king was "snubbed" by the French ambassador (O'Neill 1999, 143). The "humiliation" this loss gave rise to in France led to French territorial conquest in Africa (Barnhart 2020, 113–16). Soviet humiliation from US spy plane incursions was an important factor in the rising tension between the US and the USSR at the beginning of the Cold War, and the humiliation Soviet leaders felt over the Cuban Missile Crisis may have contributed to the decision to seek nuclear parity with the United States (Barnhart 2020, 138–39). Further, scholars point to "humiliation" as a motivation for Russia's 2014 annexation of Crimea (Larson and Shevchenko 2014).

Are public statements of humiliation merely bargaining bluster (Weiss 2014), or can humiliation actually increase individuals' willingness for war? The answer matters because if a state's cost of war falls, then the bargaining range shrinks, making conflict more likely (Fearon 1995). Yet, the major theories of international relations take very different stances on this question. Rational choice theories, including bargaining theory, realism, and liberal institutionalism, abstract away from emotions, arguing that one can largely account for important international behavior without resorting to emotional explanations. For these theories, expressions of humiliation can be discounted.

Other scholars have attempted to bring behavioral influences, like emotions, back into international relations theory, yet integrating behavioral insights with rationalist theories remains a challenge (Hafner-Burton et al. 2017). Such scholars have offered various mechanisms through which humiliation might increase an actor's preference for war. Some theorize that humiliation

leads to conflict because humiliated actors seek revenge (Lindner 2006; Löwenheim and Heimann 2008; Wang 2012). Others argue that humiliation causes individuals to dehumanize the humiliator or view the humiliator as an enemy (Leidner et al. 2010; Wang 2012; Leidner, Castano, and Ginges 2013). Still more claim that humiliated actors seek conflict to regain status, dignity, or pride (Saurette 2006; Fattah and Fierke 2009; Barnhart 2017). However, to be able to integrate humiliation with rational bargaining theories and to understand *how* humiliation influences conflict preferences, we must first understand the microfoundations behind humiliation's influence on individual decision makers (Kertzer 2017).

The way humiliation shapes conflict preferences has implications for international bargaining, how nationalism shapes foreign policy, as well as the role of behavioral influences on individual decision making in international relations. This paper presents a novel theory explaining how the emotion of humiliation influences international conflict preferences. Further, it elaborates two mechanisms derived from work in neuroscience and experimental psychology that could explain this effect. The first mechanism is that humiliation decreases sensitivity to the cost of conflict. The second mechanism is that humiliation might increase the propensity for individuals to believe that status is at stake when status is not otherwise salient. Both mechanisms would increase preferences for conflict, reducing the bargaining range and increasing the risk of bargaining breakdown.

Previous empirical studies of humiliation and conflict have either used an international event, such as territory loss (Barnhart 2017), as a proxy to measure humiliation, or examined emotional decision making in case studies (Barnhart 2016; Wang 2012). Both strategies face the challenge that emotions come bundled with international events, such as defeat in conflict, and beliefs about these events that can themselves influence preferences. Further, observational evidence cannot reveal whether humiliation changes or merely reflects preferences. Neither has previous research directly tested the mechanisms through which humiliation influences conflict preferences.

I test the theory about whether and how humiliation influences conflict preferences with both survey and lab experiments. To manipulate humiliation, I administer an autobiographical essay task. This approach takes advantage of the emotional carryover effects of humiliation to isolate

its effects from aspects of the international environment that might be associated with humiliation and also influence conflict preferences through other means. I then independently manipulate the mechanisms of cost and status in a hypothetical international crisis to assess how much of humiliation's effect operates through each mechanism. I confirm that the emotion of humiliation increases individuals' preferences for conflict and find evidence supporting the mechanism of suppressing sensitivity to cost but not the mechanism of increasing the salience of status. I further examine this cost mechanism in a lab experiment that finds additional evidence for the cost mechanism in an environment in which individuals face real, monetary costs.

This paper proceeds as follows. The first section provides a theory of how humiliation affects conflict preferences. The second describes the design of the survey experiment and analyses its results. The third analyzes the lab experiment testing humiliation's effect on conflict behavior. The fourth section discusses external validity, and the final section offers concluding comments.

1 Humiliation and International Conflict

Foreign policy decisions are ultimately made by individuals. International relations research is increasingly focusing on how these individuals behave and how this behavior systematically departs from the predictions of baseline rational models (Hafner-Burton et al. 2017; Little and Zeitzoff 2017). An especially promising strand of work focuses on how emotions affect international decisions. Actors in 'hot' or emotional states do not makes decisions the same way as actors in 'cold' states (Loewenstein 1996; McDermott 2004; Sayette et al. 2008, 698). Emotions can influence decisions by changing the salient aspects of a situation, changing preferences, and influencing what actors remember (McDermott 2004; Lerner et al. 2015). Each of these violates the typical assumptions of rational models that actors use all available, relevant information, have stable preferences, and share common knowledge of history (Golman, Hagmann, and Loewenstein 2017).

This emerging field has linked various emotional states and traits to conflict attitudes. For example, Renshon, Lee, and Tingley (2017) show that emotional arousal can cause actors to make suboptimal decisions in bargaining. Halperin et al. (2011) find that individuals who hate the out-

group are less likely to compromise in negotiations when angry. Zeitzoff (2014) finds that anger increases the propensity to punish among Israelis living in areas more exposed to rocket fire. Hatemi et al. (2013) find that individuals high in social fear have more negative opinions about out-groups. Stein (2015) finds that democracies with citizens that value revenge are more conflict prone.

In addition to the work on humiliation and conflict decision making mentioned in the introduction, there is also a substantial literature on humiliation and terrorism. Terror management theory argues that humiliation of one's world view leads to violent revenge (Pyszczynski, Motyl, and Abdollahi 2009, 19; Motyl, Rothschild, and Pyszczynski 2009, 157). Similarly, the significant quest theory of terrorism argues that humiliation of one's group identity produces a need for cognitive closure that motivates extremism (Webber et al. 2018, 271–272). Webber and Kruglanski (2018) posit humiliation combined with a narrative of blame morally justifies extremism (132). McCauley (2016) contends that the humiliation of ethnic minorities is an important motivation for terrorism in Iraq and Syria. He also suggests that terrorists can humiliate governments that fail to retaliate against their acts of terror (McCauley 2017, 263).[1]

I build on previous work on humiliation and conflict by separating humiliation as an emotion from *events* that are experienced as humiliating (Wang 2012; Badie 2017; Barnhart 2017). Distinguishing humiliation as an emotion from events that may cause it has several advantages. First, if humiliation is just the result of international events, then it cannot independently affect foreign policy decisions. Separating humiliation from events allows theorization of the mechanisms through which humiliation influences conflict preferences. Second, this approach allows us to examine whether particular events actually cause humiliation in the first place. Events do not come with emotions attached. The cognitive meaning individuals attribute to events (appraisal) plays an important role in determining what emotion individuals experience (Frijda 2007, 97).

Third, understanding humiliation's emotional aspects provides micro-foundations for theories about humiliation and conflict preferences. Theorizing the effect of humiliation on individual preferences avoids the pitfalls of attributing emotions to the state (Hafner-Burton et al. 2017, 18). This

[1] In contrast to the above, Sageman (2004) finds no evidence that terrorists were motivated by childhood humiliation or trauma in his analysis of terrorist biographies.

makes it possible to examine individual-level differences in humiliation as well as how humiliation spreads socially through national narratives.

1.1 Defining Humiliation

Before theorizing about humiliation's effects, it is necessary to define humiliation independently from international events. Hartling and Luchetta (1999) define humiliation as "the deep dysphoric feeling associated with being, or perceiving oneself as being, unjustly degraded, ridiculed, or put down—in particular, one's identity has been demeaned or devalued" (264). This definition fits with other psychological research on humiliation and includes the role of identity in humiliation. The humiliated perceive that the humiliator has committed a grave injustice. This distinguishes humiliation from shame because when ashamed one feels that it is oneself who did something unjust (Leidner, Sheikh, and Ginges 2012). Experimental evidence supports this distinction between shame and humiliation based on moral valence (Fernández, Saguy, and Halperin 2015, 5). This distinction contrasts my approach with psychoanalytic accounts of humiliation, which often treat humiliation and shame as interchangeable (Steinberg 1996, 8; Fontan 2006, 218).

Although humiliation is an emotion experienced individually, triggers for humiliation target one's identity, and identities may be shared socially. This does not imply that aggregate groups or states experience emotions. Because emotions take place within individuals' brains, emotional reactions can only occur at the individual level (McDermott 2014, 562). However, this does not deny that individuals who share an identity can have an increased propensity to have similar emotional responses at times when these identities are activated (Mercer 2014; Sasley 2011).

1.2 Humiliation and Conflict Preferences

Here I derive expectations about humiliation's influence on conflict preferences. Just as is common with rational theorizations of bargaining, I abstract away from the specific issue at stake between states (Fearon 1995). I do this in order to focus on the way that the emotional state of humiliation affects individual-level conflict preferences, regardless of specific foreign-policy goals. To

understand the effects of humiliation on decision making, I turn to neuroscience and experimental psychology.

First humiliation is an intense emotion. An experiment that recorded electro-encephalograms (EEG) while subjects read stories associated with various emotions found that "humiliation is indeed a particularly demanding emotional experience at the level of neuro-cognitive and emotional processing, more so than other approach-related emotions such as happiness and anger" and that "humiliation is a more intense emotional experience than happiness, shame, or anger" (Otten and Jonas 2014, 29, 32). This is important because more intense emotions are more likely to influence motivations (Frijda 2007, 25-26). More cognitively demanding emotions are more likely to take control precedence, which inhibits processing of information antithetical to the action tendency of these emotions (Frijda 2007, 41).

Second, humiliation is an emotion that motivates action in pursuit of goals. There are two systems that govern human behavior (Carver and White 1994). One is referred to as the behavioral inhibition system (BIS). This system inhibits the pursuit of goals and signals impending punishment, and emotions associated with it are sometimes referred to as avoidance emotions. The behavioral activation system (BAS) motivates the pursuit of goals and signals imminent reward. Emotions associated with the BAS are sometimes referred to as approach emotions. When deciding whether to engage in conflict over a disputed issue (goal), approach emotions should, on average, increase propensity for conflict by focusing attention on the value of pursuing the goal and away from the costs of this pursuit (conflict) while avoidance emotions should do the opposite (Corr 2002).

While both approach and avoidance responses have been recorded with humiliation (Atran and Ginges 2008; Torres and Bergner 2010, 200–201; Walker and Knauer 2011, 726), there are several reasons to expect an approach rather than a avoidance response in an international relations context. Violent, approach responses from humiliation are more likely when an individual identifies as an "outsider who has become an enemy of the community" (Torres and Bergner 2010, 200–01). Approach responses to humiliation are also more likely when it involves intense anger, which alone is not sufficient for violence (Walker and Knauer 2011, 727; Leidner, Sheikh, and Ginges 2012, 4).

In international relations, the role of enemy is well defined and readily available, and actors often see other nations as out groups. An injustice appraisal that increases the emphasis on the moral outrage (anger) component of humiliation is particularly likely in in-group/out-group comparisons because motivated reasoning leads people to see their own group as the victim (Herrmann 2017, 67). This perception that the humiliating action is unjust increases the probability of approach reactions (Fernández, Saguy, and Halperin 2015, 6).

Third, unlike similar emotions, such as shame, humiliation includes the perception of a hostile perpetrator (Fernández et al. 2018, 2). Because emotions direct attention to actions that remedy the emotional concern at stake (Mesquita and Frijda 2011, 782), humiliation motivates action against perceived perpetrators. Further, this hostility is not limited to perceived humiliators but can extend to other actors as well (Barnhart 2017, 319; Frijda 2007, 274).

This leads to the hypothesis that:

Hypothesis 1 (H1) *The emotional state of humiliation increases individuals' preferences for conflict.*

How does humiliation do this? Understanding the mechanism is vital to provide microfoundations to the theory, to understand when the theory is most likely to apply, and to provide guidance to future observational research about case selection and which mechanisms to examine.

Broadly speaking there are two ways that emotions can influence preferences about conflict. They can either increase the perceived benefits of conflict or decrease the restraint of the cost of conflict.[2] Emotions alter human cost-benefit calculations in ways that were adaptively useful in the past by helping individuals deter aggression and maintain beneficial placements in status hierarchies (McDermott, Lopez, and Hatemi 2017, 71; Sznycer et al. 2016, 2625). It is likely that humiliation has some effect on both cost and benefit considerations, but its effect on one may be stronger than the other. This makes it useful to theorize expectations of humiliation's effect on conflict propensity when the benefits vs. the cost component of the effect dominates. I will

[2]Another alternative to rationalist models of emotional decision making is the sacred values approach in which individuals are unwilling to compromise their sacred values no matter what the cost (Ginges et al. 2011).

refer to mechanisms that decrease the restraint of the cost of conflict as cost-side mechanisms and mechanisms that increase the perceived benefits of conflict as benefits-side mechanisms.

Whether cost-side or benefits-side mechanisms dominate humiliation's effect on conflict preferences has implications for the magnitude of the increase in conflict preferences due to humiliation across different costs of conflict. At low values of cost, the cost component cannot decrease the restraint of the cost of conflict much because it is already low. At higher values of cost, there is more room for cost-side mechanisms to decrease the influence of cost on decision making. In contrast, benefits-side mechanisms increase conflict preferences uniformly across all values of cost because higher benefits make individuals more likely to choose conflict independently of cost.

If the effect of humiliation is mostly cost driven, then humiliation would only have a minor effect at low costs of conflict because only the smaller benefits-side effect is operating, but once the cost of conflict rises beyond a certain point, the effect of humiliation on conflict propensity would start to increase as non-humiliated individuals choose conflict at lower rates but humiliated individuals are less sensitive to this rising cost. In other words, humiliation would have a small effect on conflict preferences when costs are low but a large effect when costs are high. In contrast, if the effect of humiliation on conflict preferences is mostly benefits driven, humiliation would increase propensity for conflict across all values of the cost of conflict. Any increase in humiliation's effect as the cost of conflict increases would be relatively minor, since most of the effect comes from benefits-side mechanisms. In other words, humiliation would generally increase preferences for conflict and any differences in the magnitude of this increase across the cost of conflict would be slight.

I offer two new mechanisms, one on the cost side and one on the benefits side, through which humiliation may influence conflict preferences. These mechanisms are not exhaustive. However, they have the strongest theoretical case for influencing preferences at the individual level. These mechanisms are neither dependent on each other nor mutually exclusive. It must be determined empirically whether one, either, or both operate.

First, humiliation should increase individuals' preferences for conflict by making them less

sensitive to the cost of conflict. To be clear, what I mean by lower sensitivity to cost is that humiliated individuals are willing to pay higher costs in order to perform the action their humiliation is motivating them to commit. To illustrate one possible form such a mechanism could take, let an individuals' payoff for choosing war w be a function of their probability of winning the conflict p and the 'actual' cost of conflict in terms of fatalities and money c, so that $w = p - c$. We can add a new term σ that functions as a weight on c to represent sensitivity to cost.

$$w = p - (\sigma \times c) \tag{1}$$

In this example, when an individual is not emotionally aroused, $\sigma = 1$, and the individual weighs the cost of conflict the same as they would if no σ term where present. The cost-side mechanism suggests that for humiliated individuals, $\sigma < 1$, which implies that the same level of cost has a lower impact on the utility function of a humiliated individuals, decreasing the importance of information about cost in their decision making.

The reason for the cost mechanism is that emotions have a corresponding action readiness that prepares the person experiencing them to achieve a particular aim (Frijda 2007, 27). These action tendencies are "reward insensitive", meaning that "Foresight of bad outcomes tends not to deflect from their purpose [...For example,] in urge for revenge, you risk sacrificing your life [...]" (Frijda 2007, 46). This is particularly the case for strong emotions (Elster 2012, 156-58).

Humiliation could also decrease the impact of perceived costs on decision making. Emotions interfere with the processing of information that is antithetical to their action tendency (Frijda 2007, 41). The especially intense cognitive demands humiliation poses make it particularly likely to interfere (Otten and Jonas 2014, 29, 32). BAS, the behavioral regulation system associated with humiliation, activation is associated with greater impulsivity and less sensitivity to punishment (Corr 2002).

Hypothesis 2a (H2a) *Humiliation increases conflict preferences through decreasing individuals' sensitivity to the costs of conflict.*

There are two reasons why this cost mechanism is distinct from prospect theory's prediction that individuals facing losses will become more risk acceptant (Levy 1992). First, the emotional experience of humiliation is not the same as facing losses with regard to the decision at hand. One could be humiliated for reasons that are not directly tied to the dispute. Humiliated individuals might be confronted either with the prospect of gains or losses, but as long as one is in this state, one is less sensitive to the cost of conflict in general. Second, *cost sensitivity* and *risk preference* are not the same. Given two options with the same expected value, a risk acceptant person will choose the riskier option. In contrast, being less sensitive to cost changes the expected value of the options because cost now has a lower impact on the utility function. If you are less sensitive to cost, then you are more likely to choose a strategy that could result in costly conflict, independently of the likelihood that strategy will lead to conflict (the risk).

The second mechanism is a benefits-side mechanisms involving status. Humiliation can make individuals think they stand to gain status if they prevail in a conflict and lose status if they back down. I will refer to this mechanism of leading individuals to attribute status value to the dispute when they otherwise would not as increasing the salience of status. Humiliated people express heightened fears of future humiliation (Hartling and Luchetta 1999, 263, 270). Because status loss can result in humiliation (Otten and Jonas 2014), humiliated individuals should particularly be alert for situations where they might lose status. This could cause them to attribute status implications to dispute outcomes when they would not otherwise.

This explanation supposes that humiliation increases the *salience* rather than the *value* of status. This is important because people in general tend to value status. However, many issues are at stake in conflict decision making, and individuals cannot keep them all in mind at once. Instead they assess how a policy will affect one or two salient values and this influences their assessment of the policy's other impacts (Jervis 1976, 137). Emotional arousal makes some risks more salient than others (Vertzberger 1998, 45). In situations where the status implications of a dispute are not obvious, humiliated individuals are more likely to believe that status is at stake. This can increase their assessment of the stakes and, hence, the perceived benefits of choosing conflict.

However, does increasing the salience of status increase the appeal of conflict, or does it simply displace other motivations for conflict? The way humiliation increases status's salience should, on average, increase the likelihood of conflict. The belief that one stands to lose status if one concedes on the dispute increases the payoff of fighting relative to backing down. Other considerations that status could displace may or may not make conflict more appealing. In the case where status displaces another consideration that equally points toward conflict, it will not increase the probably of conflict, but when it displaces neutral considerations or considerations that point against choosing conflict, it will increase the appeal of conflict. Therefore, on average, increasing the salience of the status lost by backing down increases the appeal of conflict.

Hypothesis 2b (H2b) *Humiliation increases conflict preferences through increasing the salience of future status loss.*

1.2.1 Elite and Public Emotional Responses

While one might imagine that emotions affect decision making differently for leaders than for the general public, the evidence is stacking up against the idea that elites are more rational or less biased decision makers than the public (Hafner-Burton et al. 2014; Sheffer et al. 2018). Experiments conducted on leader and public perceptions about conflict have "obtained nearly identical results" (Kertzer, Renshon, and Yarhi-Milo 2019, 18). If anything, politically sophisticated individuals are more likely to have emotional responses to politics and these responses have a greater influence on their behavior (Miller 2011). Regarding bargaining, that elites are even more likely than the public to reject unfavorable offers that are still better than no deal (LeVeck et al. 2014). This does not imply that leaders act *irrationally* in the sense of acting against their preferences (Little and Zeitzoff 2017, 524). Rather, it means preferences can be affect by factors other than material cost and benefit considerations, including emotional states.

Even China's top leadership discussing the United States' 1999 bombing of a Chinese embassy in Belgrade—accidental according to U.S. accounts—behind closed doors speculated that the US intended the bombing to humiliate China (Zong 2002). Because this discussion was not

intended to be public, leaders' connection of national humiliation to this incident was not simply for propaganda purposes and likely reflected their true beliefs.

While individuals can delay their decisions to limit the effect of extreme emotions (McDermott 2004), elites are not necessarily motivated by the high stakes of their decisions to use better information processing techniques, even when they are not under time pressure (Vertzberger 1998, 390). Leaders may be unable to avoid emotional influences even with conscious effort. Individuals in hot states struggle to imagine how they would think in cold states (Loewenstein 1996, 281-284). This makes it difficult to recognize whether and how emotions are impacting one's judgment.

However, even if leaders themselves are somehow isolated from the influences of emotions, public pressure can force them to behave as though they are influenced. This is not limited to democracies. The Japanese premier who signed the Washington System treaties, which limited the build-up of naval forces in the Pacific prior to WWII, was shot and killed by a nationalist, suggesting that leaders in authoritarian systems have reasons to fear their emotionally aroused citizens (Campbell 2016, 109). Chinese officials are wary of moderating China's South China Sea claims for fear of being proclaimed a "traitor who suggests backing down" (Lynch 2015, 196). Some contend that nationalism and the emotions it evokes are more influential in authoritarian regimes than in democracies because nationalism is often the only accepted form of public criticism (Shen 2010, 103). Further, it is difficult for leaders to change nationalist narratives in the short term, and authoritarian regimes that draw legitimacy from nationalism risk instability when they repress nationalists (Gries 2005, 46, 120). This may be particularly the case when nationalist narratives are themselves tied to humiliation (Wang 2012). Even if the probability of losing office is lower for autocrats, they are sensitive to it because they face harsher consequences, such as death and imprisonment, than democratic leaders who lose office (Debs and Goemans 2010).

2 Testing Humiliation's Impact on Expressed Conflict Preferences

Observational research faces two challenges in disentangling humiliation's effect on conflict preferences. First, humiliation in international relations always comes bundled with international

events appraised as humiliating as well as beliefs about these events and the actors involved. It is impossible to tell whether it is the emotion of humiliation or these events and/or beliefs that are driving responses (Renshon, Lee, and Tingley 2015, 570). Second, retrospective accounts of emotional decision making are unreliable. These accounts may be strategic self-justifications. Further, individuals can misunderstand emotional influences on their own decisions (Nisbett and Wilson 1977; Frijda 2007, 96). These limitations do not imply observational research is unimportant. Instead, they highlight the value of experiments to build on this research and help to triangulate a difficult to observe phenomenon. An experiment can assign emotional states independently of information about the international environment to identify the effect of humiliation on conflict preferences.

Even in a design that can isolate the effect of humiliation from other factors, independent manipulation of the causal mechanisms is critical (Acharya, Blackwell, and Sen 2018). This is because humans give accounts "post hoc that serve to explain or justify the emotion" they experienced (Frijda 2007, 96). For example, if asked after the outcome question whether or not they believed that US status was at stake in the dispute or that intervening would be of low cost, individuals whose decision to intervene was emotionally driven might readily seize on these logical justifications, making it impossible to tell if these causal mechanisms actually drove their preferences for conflict.

2.1 Survey Experiment Design

The first of two experiments reported here is a survey experiment on the effect of humiliation on Americans' preference for conflict, specifically military intervention, in a hypothetical scenario. The survey experiment was conducted with 804 adult American respondents recruited through Amazon Mechanical Turk (MTurk) from April 16th to May 4th 2018.[3] The experiment is a $3 \times 2 \times 2$, (shame, humiliation, control) $\times$ (costly, not costly) $\times$ (status invoked, status not invoked), factorial design (see Appendix section P for a diagram).

[3] See section 4 for more information on the sample.

The use of autobiographical essays tasks to elicit emotions in experiments originates with Ekman, Levenson, and Friesen (1983) who found that such tasks elicited autonomic and facial responses consistent with the target emotions. Subsequent research further supports the idea that rumination leads individuals to relive their past emotions (Anestis et al. 2009).[4] Myers and Tingley (2016) brought this type of treatment to political science and use it to successfully elicit targeted negative emotions in respondents. Following this work, I use autobiographical essay tasks to manipulate emotions and the Positive and Negative Affect Schedule (PANAS-X) to measure emotions (Watson and Clark 1999). Respondents are randomly assigned to write about a time in their life when they were humiliated, a time when they were shamed, or their last trip to the grocery store, which is the control condition (see Appendix section G for the full essay prompts and survey instrument).

The shame manipulation is included to rule out the possibility that negative affect rather than humiliation drives the results. Shame is considered the emotion most similar to humiliation and is commonly compared with humiliation in the experimental psychology literature (Otten and Jonas 2014; Hartling and Luchetta 1999). Shame, like humiliation, includes anger, so the comparison with shame also helps alleviate the concern that this anger component drives the effect (Scheff 1988). If humiliation increases individuals' preferences for conflict but shame does not, this would provide strong evidence that this effect is unique to humiliation. Because the PANAS-X does not have a scale for humiliation, I create a novel scale based on the definition of humiliation in Hartling and Luchetta (1999). The Appendix section G.4 shows these scales, and section K uses principal component analysis to validate the new measure of humiliation.

Experimentally assigning personal emotions has the advantage of separating emotions from confounding aspects of the international situation. This exploits the way incidental emotions, that is emotions not related to the decision at hand, carry over to influence political judgments to "cleanly estimate the 'pure' effect" of humiliation (Renshon, Lee, and Tingley 2015, 570).[5]

[4] While it is possible the relived emotion could differ from the original emotion, for the purposes of this study what matters is whether the treatment's effect on humiliation leads to the outcome, which does not depend on these emotions being identical and is assessed using the causal mediation strategy described below.

[5] See also (Small and Lerner 2008).

If personal emotions lead to changes in unrelated international conflict preferences, this gives confidence that emotions, rather than information about the international environment, drive these changes.

One might wonder whether measuring emotions through self-reports falls prey to the issue raised earlier about observational research. Indeed, if individuals are dishonest about or unable to recognize their own emotional state, then this measure will fail. However, it does have the advantage of *separating* assessment of respondents' emotional states from their accounts of their decision making. This way, it does not matter whether respondents recognize whether their decision is humiliation driven because the design links respondents' reported emotional states to their decisions directly. This also helps address the problem that actors rationalize emotionally-driven decisions in post-hoc explanations.

Emotional measurement is conducted immediately after the essay task. I include measures of humiliation, fear, hostility (anger), and guilt (shame). Using these emotional measures is necessary because passive measures of physiological arousal, such as skin-conductance reactivity, measure general arousal and not particular emotions (Renshon, Lee, and Tingley 2015, 575).

Following Myers and Tingley (2016), I use the effect of the essay on the outcome through the targeted emotion, that is the average causal mediation effect (ACME), as the primary quantity of interest. This is because even though autobiographical essay tasks target particular emotions, they will inevitably move subjects on other emotions as well. This makes interpreting the total effect misleading and can result in spurious findings (Myers and Tingley 2016, 498). A consequence of using this approach is that I must assume sequential ignorability (Appendix section N explores the sensitivity of the results to violations of this assumption).

After answering the emotional items, respondents receive a vignette similar to vignettes used in other international relations experiments (Kertzer 2016). Respondents read that a country has invaded a smaller neighboring state that shares interests with the US but is not a US ally. These details are included to increase the probably that the information equivalence assumption is satisfied (Dafoe, Zhang, and Caughey 2017). If respondents are told that US status is at stake in a dispute,

they might think that the invaded country is more likely to be a US ally or share US interests. Fixing these conditions prevents the treatments from unintentionally manipulating them.

The vignette varies whether it would be 'very costly' or 'not very costly' for the US to use military force (Tomz and Weeks 2016). The scenario also varies whether US status is explicitly at stake. The condition says either, 'US interests as well as US world status' or only 'US interests' is at stake. US interests are mentioned in both conditions to hold them constant, since respondents who hear about US status might be more likely to think other US interests are also at stake. To be clear, the expectation of the status hypothesis is that humiliated respondents will be more likely to support intervention when status is *not* mentioned. This is because it expects humiliation to make status salient when it otherwise would not be. The condition that explicitly mentions status makes status salient to all respondents and blocks this mechanism.

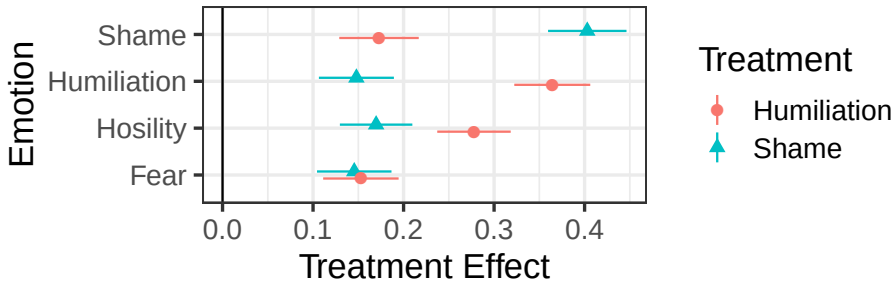
The outcome question is whether respondents support using US troops to push back the invader. Respondents then indicate whether they feel strongly about this. These two questions are combined into a four point outcome scale measuring intervention support (Kertzer 2016, 174).

2.2 Survey Experiment Results

2.2.1 Effect of Emotional Essay Tasks on Target Emotions

Figure 1 shows the effect of the shame and humiliation essays on each emotion with the control essay as the comparison category. Each essay treats the emotion it is intended to target more than other emotions. For humiliation, hostility (anger) is a secondary target because humiliation involves moral outrage. The fact that non-target emotions, such as fear, are also moved by the essays, although to a lesser extent, is expected with emotional essay tasks and is the reason using causal mediation to estimate the effect of the treatment through the targeted emotion is necessary (Myers and Tingley 2016). See Appendix section E for a discussion of potential attrition across treatment groups.

Figure 1: Effect of Essay Treatments on Emotions



The results for each emotion come from separate regression models with the control as the comparison category. The bars show 95% confidence intervals. Emotions are on a 0 to 1 scale.

2.2.2 Effect of Humiliation on Intervention Support

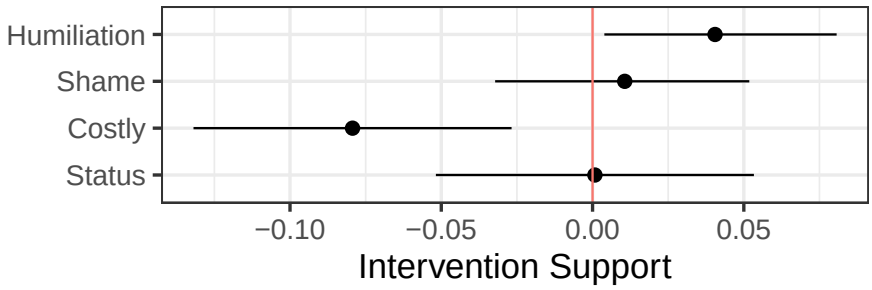
In the models that produce the results shown below, controls are only included for experimentally manipulated conditions.[6] Controls for the status and cost manipulations are included in the outcome stage but not in the stage modeling the effect of the essay on the target emotion because this effect is measured before respondents receive either the status or cost manipulation. All variables are rescaled between 0 and 1 for comparability.

As hypothesized (H1), Humiliation increases support for intervention, but shame does not. The difference between the ACMEs of humiliation and shame is also significant.[7] The ACME of humiliation is about half the magnitude of the effect of moving the intervention from 'very costly' to 'not very costly.' According to rational models, the cost of war should play a major role in an individual's intervention support, so the fact that humiliation's effect is about half that of cost means it is a substantively important effect. The status manipulation does not change respondent support for intervention on its own. The section below explores whether the ACME of the humiliation treatment through humiliation changes as the mechanisms are fixed at certain values to assess the support for H2a and H2b.

[6]This includes wave dummies for minor differences in the survey. See Appendix section G.1 for a complete explanation.

[7]This is true whether all of the points of the simulation are used or if the simulation of each effect is restricted to the first 235 points for humiliation and 249 for shame to reflect the number of respondents in each condition. This is done to address the concern that the simulation of the ACMEs for shame and humiliation might bias the standard error downward by exaggerating the amount of data points.

Figure 2: Effect on Intervention Support



The bars show 95% confidence intervals. All variables scaled from 0 to 1.

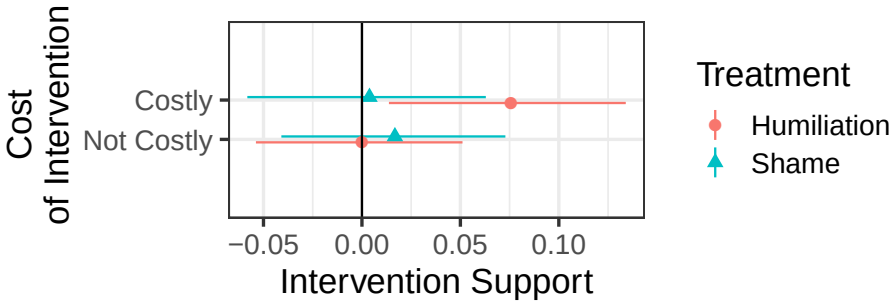
2.2.3 Mechanisms

Figure 3 shows the ACMEs of humiliation and shame as the cost of the intervention varies between 'very costly' and 'not very costly.' Supporting H2a, humiliation significantly increases support for intervention when the intervention is 'very costly' but not when the intervention is 'not very costly'. The results indicate that the effects of humiliation on conflict preferences are mostly cost driven. This does not necessarily imply that humiliation has no benefits-side effects because it could be that those effects exist but are too small to detect with the power available in this experiment. Further, humiliation increases support for intervention in the costly condition almost as much as the costly condition decreases support for intervention in the sample overall (an increase of 0.076 vs. a decrease of 0.079), which suggests that humiliation nearly eliminates the costliness of intervention from respondents' decision making. Figure 4 provides further evidence for this interpretation by showing that the effect of the cost of intervention becomes undetectable as a respondents' humiliation score increases.[8]

The ACME of shame is not significant in either cost condition. Further, the ACMEs of humiliation and shame in the costly condition remain statistically distinguishable from each other. This follows theoretical expectations because even if shame's action tendencies are cost insensitive, shame should not have a conflictual action tendency because it is not an approach emotion. Neither does shame involve the attribution of hostility to an other.

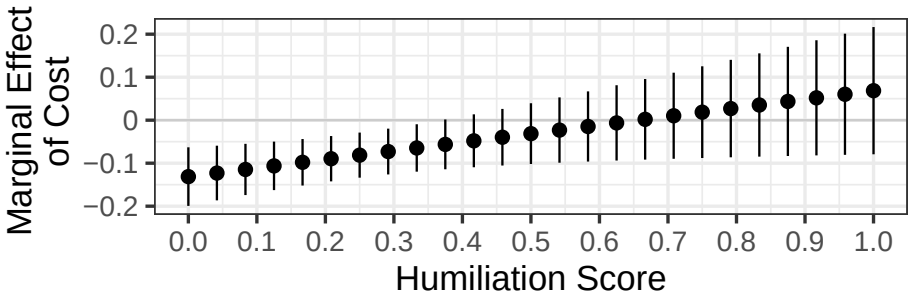
[8]These marginal effects come from a regression that interacts the effect of cost with respondents' humiliation scores while controlling for experimental conditions and waves. Removing the covariates does not affect this result.

Figure 3: Effect on Intervention Support When Varying Cost



The bars show 95% confidence intervals. All variables scaled from 0 to 1.

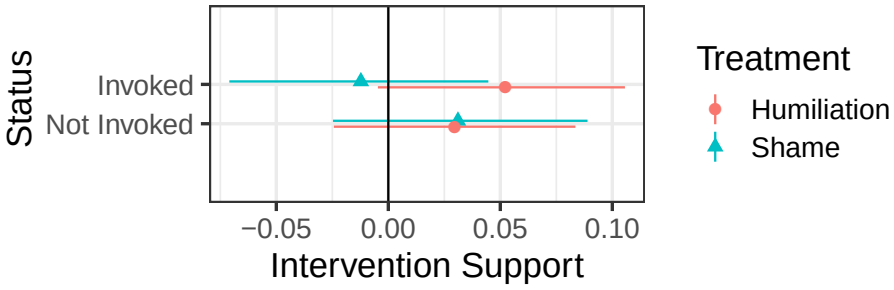
Figure 4: Humiliation Attenuates the Effect of Cost



The bars show 95% confidence intervals. All variables scaled from 0 to 1.

Figure 5 shows the effects of humiliation and shame when US status is invoked as opposed to when it is not mentioned. The ACME of humiliation is approximately the same in both status conditions, which suggests that status neither mediates nor moderates the effect. Further, the absence of an effect of the status manipulation by itself calls into question its potential as a mechanism. Overall, H2b is not supported.

Figure 5: Effect on Intervention Support Varying Status



The bars show 95% confidence intervals. All variables scaled from 0 to 1.

Sensitivity analysis indicates that the positive results for humiliation in the full sample shown

in Figure 2 and in the costly subsample shown in Figure 3 are relatively sensitive to potential violations of the sequential ignorability assumption with ρ values of 0.07 and 0.13 respectively (See Appendix section N). Future studies should seek experimental designs that are more robust to potential sequential ignorability violations to further increase confidence in humiliation's effect.

3 Testing Humiliation's Effect on Conflict Behavior

If humiliation actually affects conflict preferences through individuals' sensitivity to cost, then this should be visible in behavior when the cost of acting is real rather than hypothetical. A limitation of the survey experiment is that it is relatively costless for respondents to express support for a hypothetical war. If faced with actual cost, respondents might exert more effort to control their emotions and make a less costly decision (Dickson 2011).

To address this, I introduce the humiliation and control essay treatments into a laboratory experiment where respondents play an incentivized game with a monetary cost to war.[9] In addition to the emotional essay conditions (humiliation and control), I assign the cost of war to be either high or low, so it is a 2×2 factorial experiment. The laboratory experiment also adds to the overall confidence in the results because, unlike the survey experiment, there is no post-treatment attrition.

3.1 Lab Experiment Design

I recruited 196 participants from the behavior research lab participant pool at a University in the Midwest. The experiment took place in 26 sessions lasting approximately 40 minutes each. The smallest session had 4 participants, and the largest had 14. Sessions were conducted in 2019 from May 21 to June 7 and from June 17 to June 21.[10] Participants received $5 in addition to the money they earned from the incentivized game.[11] Respondents first answer demographic and disposition

[9] Deviations from the pre-analysis plan are indicated in footnotes. This paper focuses on the hypothesis that humiliated respondents are more likely to attack when the cost of war is high (H2 in the pre-analysis plan).

[10] The week of June 17 was not included in the pre-analysis plan, but the lab became available at this time because another experiment was canceled. The total number of participants is within the range specified in the pre-analysis plan.

[11] The pretreatment data for 6 of these participants was lost when the server crashed during a session.

questions, and then receive instructions on how the experiment will progress as well as how to play the incentivized game (the game is described in detail below and the full instrument appears in the Appendix section H). Respondents input all of their actions into a computer terminal and are instructed not to communicate with each other.[12] First, respondents play 5 practice rounds of the game. The practice rounds are to control both for the effect of learning about the game over time and any emotional effect of playing the game. In each round, players are randomly rematched with an anonymous opponent to avoid reputation effects.

Respondents are instructed that they will be paid based on one randomly selected round of the game (excluding the practice rounds). Respondents' pretreatment emotional states are measured as they are in the survey experiment. Next, respondents play 4 rounds of the game that provide a pretreatment measure of respondent behavior. Afterward, respondents are randomly assigned to write either the control or the humiliation essay, and their emotional state is measured again. Lastly, respondents play 4 more rounds of the game.

The incentivized game is an extensive form game where the first player must choose either to attack or not (see the Appendix section I for the game diagram). After the first player moves, the second player observes the first player's move and chooses either to attack or not. If both players choose not to attack, then both players receive their payoff for the status quo s (the game is symmetrical so payoffs have no subscripts). If one player chooses not to attack and the other player chooses to attack, then the player who chose not to attack receives their war payoff for getting struck first w^s, and the other player receives their war payoff for striking first w^f. If both players choose to attack, then they both receive their war payoff of w. The differences in these war payoffs emerge from different probabilities of winning p. The probability of winning is greatest when first striking $\bar{p}$, the next greatest when both strike p, and the least when first struck $\underline{p}$, so that $w^f > w > w_s$.

A key property of this game is that it has two unique subgame perfect Nash equilibria (SPNE) depending on c. When c is high enough that $s > w^f$, then both players choose not to attack.

[12]The game is implemented using the experimental software z-Tree (Fischbacher 2007).

Otherwise, if $w^f > s$, then both players choose to attack. This allows me to manipulate c and assess whether players successfully adapt their behavior to the changing payoffs. H2a predicts that players who are humiliated should be more likely than non-humiliated players to choose war when the cost of war is high because the cost of attacking has less of a restraining effect on their decision than it does on unaroused individuals. Because both cost and humiliation are randomly assigned, any difference in the effect of humiliation across cost conditions can be attributed to the effect of changing costs on players' payoffs. However, because the players do not see their payoffs decomposed into cost and benefit components, this experiment is unable to examine the precise form the cost mechanism takes. Future studies could make this information explicit to respondents further clarify this relationship.

All game parameters take the same value in all conditions except c and the changes in the war payoffs due to c. I fix the payoff for the status quo s at \$6. The difference in the cost of war is represented by a \$2 downward shift in all of the war payoffs in the high cost of war condition. When the cost of war is low, the war payoffs are: w = \$5, w^f = \$7, and w^s = \$4. When the cost of war is high, the war payoffs are: w = \$3, w^f = \$5, and w^s = \$2. Resultantly, in the low cost condition, s is always $< w^f$, so the SPNE response is both players attack. In contrast, the SPNE response in the high cost condition is both players do not attack. If humiliated individuals are less likely to account for the changes in their payoffs that result from the increase in cost, then they should be less likely to attack in the high cost condition.

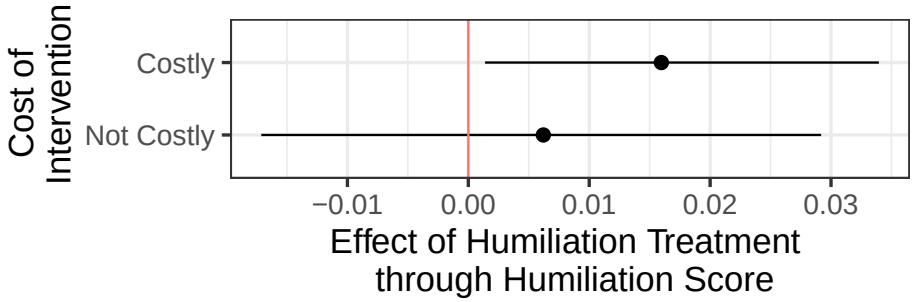
3.2 Lab Experiment Results

The between-subjects results are tested using the same Myers and Tingley (2016) setup used to analyze the survey experiment, where the main quantity of interest is the ACME of the humiliation essay through the measure of humiliation (see Appendix section C for the effect of the essay on humiliation). I control for whether a respondent is a first mover and include period fixed effects.[13]

[13] Just as in the survey experiment analysis and in accord with my pre-analysis plan, I do not control for demographic covariates. The between-subjects results are substantively the same with demographic covariates included. Demographic covariates do not vary within-individual, so they cannot be added to the within-subjects results.

Figure 6 shows the ACME of the humiliation essay through the emotion of humiliation on the probability of attacking. The effect is positive and statistically significant only when the cost of war is high, supporting H2a. The within-subjects results also support the conclusion that humiliation increases conflict preferences by decreasing individuals' sensitivity to the cost of conflict (see Appendix section J). This increases confidence that the findings are not driven by some unobserved characteristic of respondents that correlated with treatment assignment.

Figure 6: ACME Across Cost Conditions (Between Subjects)



The bars show 95% confidence intervals. All variables scaled from 0 to 1.

The null effect of humiliation when conflict is not costly should *not* be interpreted as indicating that humiliation has no benefits-side effects. The experiment is designed only to test the cost mechanism and is explicitly setup so that a rational respondent will always attack in equilibrium when the cost of war is low and not when the cost is high. This means, by design, this experiment cannot find benefits-side effects because both humiliated and control respondents should attack when the cost of war is low. Like the survey experiment results, the positive effect of humiliation when conflict is costly is relatively sensitive to potential violations in the sequential ignorability assumption with a ρ value of 0.08–0.12 depending on how it is calculated (See Appendix section N).

4 External Validity

When assessing external validity it is important to keep in mind that external validity is not a property of any one study. Instead, external validity applies to a research program as replications

examine whether the theorized relationship holds in different contexts (McDermott 2011, 34-35). In terms of the research program on humiliation and international conflict, section 2 explains why experiments are valuable for establishing humiliation's influence on conflict preferences. Further, the mechanisms uncovered here can help provide guidance to future observational studies in determining what cases and mechanisms to scrutinize.

One concern could be that humiliation experienced through personal identities differs in effect from humiliation that individuals experience though national identities. According to appraisal theory, it is not the event but the emotional appraisal of that event that determines the emotion experienced (Frijda 2007, 97). The same triggering event can lead to different emotions in different people. The wording of the essay prompt is designed to get respondents to write about an event that they have appraised as humiliating. Further, the aspects of humiliation that I draw on to build my theoretical expectations are trigger independent. Humiliation is an intense emotion associated with hostility that poses an intense cognitive load likely to interfere with assessments of the cost of hostile action, regardless of the identity though which humiliation is triggered.

Another concern could be that treating personal humiliation creates a more intense emotional experience than treating national humiliation, so asking respondents to think about personal humiliation overestimates the effect. However, when politicians promote narratives of national humiliation, these narratives are heavily represented in the media and education system (Wang 2012). An experiment cannot match the saturation and duration of these campaigns, so a stronger treatment is used to mimic this cumulative effect. Additionally, real-life international crises are much more emotional than conditions that can be experimentally induced.

Section 1.2.1 addresses the issue of whether elites behave differently than the general population when it comes to emotions and politics, but it remains possible that humiliation's influence on elites differs in ways that cannot be predicted based on previous studies. Replicating the experiment with a sample of policy makers could rule out this concern. However, policy makers are unlikely to be willing to sit for a study that requires them to put into writing a time when they experienced humiliation, and policy-maker samples are generally too small to include manipulations

for mechanisms. Research designs face a tradeoff between directly observing policy makers and identifying causal mechanisms through more extensive manipulations. Fortunately, the research program as a whole can include studies of both kinds.

Further, how reflective the samples are of the general population remains to be discussed. The Appendix section B shows the demographic characteristics of the survey sample. MTurk samples tend to be more representative of the US population than most convenience samples, and the ways that they differ (respondents skew younger and more liberal) are well documented, making it easy to assess the direction of the bias when generalizing (Huff and Tingley 2015; Berinsky, Huber, and Lenz 2012). Examining whether the effect of the humiliation treatment varies across demographic groups finds limited evidence of heterogeneous effects, which suggests that changing the composition of the sample is unlikely to alter the results (see Appendix section D). In general, large-scale replication projects have found that political science experiments on MTurk tend to produce similar treatment effects to experiments on nationally representative samples in the US (Mullinix et al. 2015).

Another concern could be cross-cultural generalizability. Can the results on US subjects be used to make conclusions about the effects of emotions in China and elsewhere? The most direct way to examine this would be to replicate the experiment in China. Unfortunately, my attempts to do this were blocked because questions about hypothetical international crises are considered too politically sensitive. However, there are strong theoretical reasons to expect that the findings travel. There is broad evidence of the universality of emotions and emotional expression (Ekman 1992; Ekman and Friesen 1971; Elfenbein and Ambady 2002; Frijda 2007). For example, recent large cross-cultural studies on shame and pride find that these emotions exist cross-culturally and serve the same functions across cultural contexts (Sznycer et al. 2018; Sznycer et al. 2016; Beall and Tracy 2020). Further, the lack of heterogeneity in the effect of the humiliation treatment across the demographic variation that does exist in the survey sample lends confidence that the effect is relatively constant across individuals (see Appendix section D).

The value of the laboratory experiment is to probe the generalizability of the survey experiment

to conditions where decision makers face real costs rather than to represent a particular target population. While the stakes of an actual war are greater than the monetary incentives in the lab experiment, the empirical work on stakes in experiments suggests that to the extent that stakes change behavior, the difference between the effect of moderate stakes and no stakes is greater than that between moderate stakes and increased stakes (Camerer and Hogarth 1999; Holt and Laury 2001; Hertwig and Ortmann 2003). However, it remains possible that the massive stakes involved in conflict decisions could change the decision making process in unforeseen ways. Since it is neither feasible nor ethical to include such stakes in an experiment, research designs face a tradeoff between research that directly observes conflict decision making and research that randomizes mechanisms to identify their effect on decision making. As with the above discussion of the tradeoffs regarding the sample, triangulating the effect of emotions on conflict decision making ultimately requires research of both kinds.

5 Conclusion

This paper provides the first evidence able to distinguish the support for different mechanisms through which humiliation might foster conflict. The findings indicate that humiliation increases individuals' preferences for conflict by decreasing their sensitivity to the cost of conflict. This effect continues to hold when individuals face real, monetary costs to initiating conflict. This decreased sensitivity to cost does not make the dispute indivisible, humiliated respondents do not always attack, but it does increase the likelihood that individuals will choose conflict.

Failing to account for humiliation could, therefore, lead to underestimating counterparts' resolve. For example, feelings of humiliation in China regarding territorial disputes in the East China Sea and South China Sea, could elevate willingness to go to war within China. This is relevant to international bargaining both because an increased willingness to go to war due to a decreased cost of war shrinks the bargaining range and because not accounting for humiliation's effect on China's bargaining range could lead negotiators to make unacceptable offers, increasing the chance of bargaining breakdown and conflict. Understanding the effects of humiliation could also help explain

why Russia has been willing to pay the costs of sanctions and lives lost of its annexation of Crimea and role in the conflict in Ukraine.

Understanding the microfoundations of humiliation's effect is particularly valuable because it allows the theory's behavioral insights to be incorporated with rational theories of bargaining, and bridging this gap is a vital challenge for continued progress in international relations theory (Kertzer 2017; Renshon, Lee, and Tingley 2017; Hafner-Burton et al. 2017; Little and Zeitzoff 2017). Specifically, the variables in rational bargaining models, like cost of war, still determine actors' decisions, but their influence on actors' decision making (in technical terms their impact on the utility function), is affected by actors' emotions. This shows both that while it may be useful to temporarily abstract away from emotions, it is critical to eventually bring emotions back into the picture and that this can be accomplished while building on, rather than sacrificing, the systematic insights rational theories provide. Further, understanding that humiliation acts by decreasing sensitivity to the cost of conflict also helps clarify to which cases the theory is most likely to apply (cases, like interstate conflict, where conflict is costly rather than less costly cases, like drone strikes against non-state actors), and to provide guidance about case selection and which mechanisms to examine for observational research. Research examining, within country and conflict, whether the cost perceptions of humiliated leaders differ from that of leaders who were not humiliated might prove particularly valuable.

The experimental evidence presented here provides important empirical contributions. It avoids unreliable individual accounts of emotional decisions, which compose the historical record. Further, assigning humiliation independently of information about the international environment avoids bundling international events and information about these events with humiliation. Future research could examine whether these findings hold up on samples representing different target populations and whether the institutional and/or group decision-making environments that leaders are embedded in can attenuate humiliation's effect.

References

Acharya, Avidit, Matthew Blackwell, and Maya Sen (2018). "Analyzing Causal Mechanisms in Survey Experiments". *Political Analysis* 26.4, 357–378.

Anestis, Michael D et al. (2009). "Anger rumination across forms of aggression". *Personality and Individual Differences* 46.2, 192–196.

Atran, Scott and Jeremy Ginges (Aug. 1, 2008). "Humiliation and the Inertia Effect: Implications for Understanding Violence and Compromise in Intractable Intergroup Conflicts". *Journal of Cognition and Culture* 8.3, 281–294.

Badie, Bertrand (2017). *Humiliation in international relations: a pathology of contemporary international systems*. volume 5. Oxford ; Portland, Oregon: Hart Publishing, an imprint of Bloomsbury Publishing Plc. 169 pp.

Barnhart, Joslyn (2016). "Status competition and territorial aggression: evidence from the scramble for Africa". *Security Studies* 25.3, 385–419.

— (2017). "Humiliation and third-party aggression". *World Politics* 69.3, 532–568.

— (2020). *The consequences of humiliation: anger and status in world politics*.

Beall, Alec T and Jessica L Tracy (2020). "Evolution of pride and shame". *Cambridge Handbook of Evolutionary Perspectives on Human Behavior*. Cambridge University Press.

Berinsky, Adam J, Gregory A Huber, and Gabriel S Lenz (2012). "Evaluating online labor markets for experimental research: Amazon. com's Mechanical Turk". *Political Analysis* 20.3, 351–368.

Callahan, William A. (2010). *China: the pessoptimist nation*. Oxford ; New York: Oxford University Press. 266 pp.

Camerer, Colin F and Robin M Hogarth (1999). "The effects of financial incentives in experiments: A review and capital-labor-production framework". *Journal of risk and uncertainty* 19.1, 7–42.

Campbell, Kurt M. (2016). *The Pivot: the future of American statecraft in Asia*. First edition. New York: Twelve. 399 pp.

Carver, Charles S and Teri L White (1994). "Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: the BIS/BAS scales." *Journal of personality and social psychology* 67.2, 319.

Corr, Philip J (2002). "JA Gray's reinforcement sensitivity theory: Tests of the joint subsystems hypothesis of anxiety and impulsivity". *Personality and individual differences* 33.4, 511–532.

Dafoe, Allan, Baobao Zhang, and Devin Caughey (2017). "Information Equivalence in Survey Experiments". *Political Analysis*.

Debs, Alexandre and H.E. Goemans (Aug. 2010). "Regime Type, the Fate of Leaders, and War". *American Political Science Review* 104.3, 430–445.

Dickson, Eric S. (2011). "Economics Versus Psychology Experiments: Stylization, Incentives, and Deception". *Cambridge handbook of experimental political science*. Ed. by James N. Druckman et al. Cambridge University Press.

Ekman, Paul (1992). "An argument for basic emotions". *Cognition & emotion* 6.3, 169–200.

Ekman, Paul and Wallace V Friesen (1971). "Constants across cultures in the face and emotion." *Journal of personality and social psychology* 17.2, 124.

Ekman, Paul, Robert W Levenson, and Wallace V Friesen (1983). "Autonomic nervous system activity distinguishes among emotions". *science* 221.4616, 1208–1210.

Elfenbein, Hillary Anger and Nalini Ambady (2002). "On the universality and cultural specificity of emotion recognition: a meta-analysis." *Psychological bulletin* 128.2, 203.

Elster, Jon (2012). *Strong feelings: emotion, addiction, and human behavior*.

Fattah, K. and K.M. Fierke (Mar. 1, 2009). "A Clash of Emotions: The Politics of Humiliation and Political Violence in the Middle East". *European Journal of International Relations* 15.1, 67–93.

Fearon, James D. (1995). "Rationalist Explanations for War". *International Organization* 43.3, 379–414.

Fernández, Saulo, Tamar Saguy, and Eran Halperin (2015). "The paradox of humiliation: The acceptance of an unjust devaluation of the self". *Personality and Social Psychology Bulletin* 41.7, 976–988.

Fernández, Saulo et al. (May 2018). "Understanding the role of the perpetrator in triggering humiliation: The effects of hostility and status". *Journal of Experimental Social Psychology* 76, 1–11.

Fischbacher, Urs (June 2007). "z-Tree: Zurich toolbox for ready-made economic experiments". *Experimental Economics* 10.2, 171–178.

Fontan, Victoria (2006). "Polarization between occupier and occupied in post-Saddam Iraq: Colonial humiliation and the formation of political violence". *Terrorism and Political Violence* 18.2, 217–238.

Frijda, Nico H. (2007). *The laws of emotion*. Mahwah, N.J: Lawrence Erlbaum Associates. 352 pp.

Ginges, Jeremy et al. (2011). "Psychology out of the laboratory: The challenge of violent extremism." *American Psychologist* 66.6, 507.

Golman, Russell, David Hagmann, and George Loewenstein (2017). "Information avoidance". *Journal of Economic Literature* 55.1, 96–135.

Gries, Peter Hays (Dec. 1, 2005). "China's "New Thinking" on Japan". *The China Quarterly* 184, 831–850.

Hafner-Burton, Emilie M et al. (2014). "Decision maker preferences for international legal cooperation". *International Organization* 68.4, 845–876.

Hafner-Burton, Emilie M et al. (2017). "The behavioral revolution and international relations". *International Organization* 71 (S1), S1–S31.

Halperin, Eran et al. (2011). "Anger, hatred, and the quest for peace: Anger can be constructive in the absence of hatred". *Journal of Conflict Resolution* 55.2, 274–291.

Hartling, Linda M. and Tracy Luchetta (1999). "Humiliation: Assessing the impact of derision, degradation, and debasement". *Journal of Primary Prevention* 19.4, 259–278.

Hatemi, Peter K et al. (2013). “Fear as a disposition and an emotional state: A genetic and environmental approach to out-group political preferences”. *American Journal of Political Science* 57.2, 279–293.

Herrmann, Richard K. (Apr. 2017). “How Attachments to the Nation Shape Beliefs About the World: A Theory of Motivated Reasoning”. *International Organization* 71 (S1), S61–S84.

Hertwig, Ralph and Andreas Ortmann (2003). “Economists’ and psychologists’ experimental practices: How they differ, why they differ, and how they could converge”. *The psychology of economic decisions*. Oxford University Press, 253–272.

Holt, Charles A and Susan K Laury (2001). “Varying the scale of financial incentives under real and hypothetical conditions”. *Behavioral and Brain Sciences* 24.3, 417–418.

Huff, Connor and Dustin Tingley (2015). ““Who are these people?” Evaluating the demographic characteristics and political preferences of MTurk survey respondents”. *Research & Politics* 2.3, 2053168015604648.

Jervis, Robert (1976). *Perception and misperception in international politics*. Princeton, N.J: Princeton University Press. 445 pp.

Kertzer, Joshua D. (2016). *Resolve in international politics*. Princeton, New Jersey: Princeton University Press.

Kertzer, Joshua D (2017). “Microfoundations in international relations”. *Conflict management and peace science* 34.1, 81–97.

Kertzer, Joshua D, Jonathan Renshon, and Keren Yarhi-Milo (2019). “How Do Observers Assess Resolve?” *British Journal of Political Science*, 1–23.

Larson, Deborah Welch and Alexei Shevchenko (2014). “Russia says no: Power, status, and emotions in foreign policy”. *Communist and post-communist studies* 47.3, 269–279.

Leidner, Bernhard, Emanuele Castano, and Jeremy Ginges (2013). “Dehumanization, retributive and restorative justice, and aggressive versus diplomatic intergroup conflict resolution strategies”. *Personality and Social Psychology Bulletin* 39.2, 181–192.

Leidner, Bernhard, Hammad Sheikh, and Jeremy Ginges (Sept. 28, 2012). "Affective Dimensions of Intergroup Humiliation". *PLoS ONE* 7.9. Ed. by Liane Young, e46375.

Leidner, Bernhard et al. (2010). "Ingroup glorification, moral disengagement, and justice in the context of collective violence". *Personality and Social Psychology Bulletin* 36.8, 1115–1129.

Lerner, Jennifer S et al. (2015). "Emotion and decision making". *Annual review of psychology* 66.

LeVeck, Brad L et al. (2014). "The role of self-interest in elite bargaining". *Proceedings of the National Academy of Sciences* 111.52, 18536–18541.

Levy, Jack S (1992). "Prospect theory and international relations: Theoretical applications and analytical problems". *Political Psychology*, 283–310.

Lindner, Evelin (2006). *Making enemies: humiliation and international conflict*. Westport, Conn: Praeger Security International. 224 pp.

Little, Andrew T. and Thomas Zeitzoff (2017). "A bargaining theory of conflict with evolutionary preferences". *International Organization* 71.3, 523–557.

Loewenstein, George (1996). "Out of control: Visceral influences on behavior". *Organizational behavior and human decision processes* 65.3, 272–292.

Lynch, Daniel C. (2015). *China's futures: PRC elites debate economics, politics, and foreign policy*. Stanford, California: Stanford University Press. 328 pp.

Löwenheim, Oded and Gadi Heimann (Dec. 9, 2008). "Revenge in International Politics". *Security Studies* 17.4, 685–724.

McCauley, Clark (2016). "What comes after ISIS? A peace proposal". *Perspectives on Terrorism* 10.4, 62–66.

— (2017). "Toward a psychology of humiliation in asymmetric conflict." *American Psychologist* 72.3, 255.

McDermott, Rose (2004). "The feeling of rationality: The meaning of neuroscientific advances for political science". *Perspectives on politics* 2.4, 691–706.

— (2011). "Internal and external validity". *Cambridge handbook of experimental political science*, 27–40.

McDermott, Rose (2014). “The body doesn’t lie: a somatic approach to the study of emotions in world politics”. *International Theory* 6.3, 557–562.

McDermott, Rose, Anthony C Lopez, and Peter K Hatemi (2017). “” Blunt Not the Heart, Enrage It”: The Psychology of Revenge and Deterrence (November 2017)”. *Texas National Security Review*.

Mercer, Jonathan (Nov. 2014). “Feeling like a state: social emotion and identity”. *International Theory* 6.3, 515–535.

Mesquita, Batja and Nico H Frijda (2011). “An emotion perspective on emotion regulation”. *Cognition & emotion* 25.5, 782–784.

Miller, Patrick R (2011). “The emotional citizen: Emotion as a function of political sophistication”. *Political psychology* 32.4, 575–600.

Motyl, Matt, Zach Rothschild, and Tom Pyszczynski (2009). “The cycle of violence and pathways to peace”. *Journal of Organisational Transformation & Social Change* 6.2, 153–170.

Mullinix, Kevin J. et al. (2015). “The Generalizability of Survey Experiments”. *Journal of Experimental Political Science* 2.2, 109–138.

Myers, C Daniel and Dustin Tingley (2016). “The influence of emotion on trust”. *Political Analysis* 24.4, 492–500.

Nisbett, Richard E and Timothy D Wilson (1977). “Telling more than we can know: Verbal reports on mental processes.” *Psychological review* 84.3, 231.

Otten, Marte and Kai J. Jonas (Jan. 2, 2014). “Humiliation as an intense emotional experience: Evidence from the electro-encephalogram”. *Social Neuroscience* 9.1, 23–35.

O’Neill, Barry (1999). “Honor, symbols and war”. *Ann Arbor, Michigan University Press*.

Pyszczynski, Tom, Matt Motyl, and Abdolhossein Abdollahi (2009). “Righteous violence: killing for God, country, freedom and justice”. *Behavioral Sciences of Terrorism and Political Aggression* 1.1, 12–39.

Renshon, Jonathan, Jooa Julia Lee, and Dustin Tingley (2015). “Physiological arousal and political beliefs”. *Political Psychology* 36.5, 569–585.

Renshon, Jonathan, Julia J Lee, and Dustin Tingley (2017). "Emotions and the micro-foundations of commitment problems". *International Organization* 71 (S1), S189–S218.

Sageman, Marc (2004). *Understanding terror networks*. Philadelphia: University of Pennsylvania Press. 220 pp.

Sasley, Brent E (2011). "Theorizing states' emotions". *International Studies Review* 13.3, 452–476.

Saurette, Paul (2006). "You dissin me? Humiliation and post 9/11 global politics". *Review of international studies* 32.3, 495–522.

Sayette, Michael A et al. (2008). "Exploring the cold-to-hot empathy gap in smokers". *Psychological science* 19.9, 926–932.

Scheff, Thomas J (1988). "Shame and conformity: The deference-emotion system". *American sociological review*, 395–406.

Sheffer, Lior et al. (2018). "Nonrepresentative Representatives: An Experimental Study of the Decision Making of Elected Politicians". *American Political Science Review* 112.2, 302–321.

Shen, Simon (2010). "Alternative Online Chinese Nationalism: Response to the Anti-Japanese Campaign in China on Hong Kong's Internet". *Online Chinese Nationalism and China's Bilateral Relations*. Ed. by Simon Shen and Shaun Breslin. Lanham, Maryland: Lexington Books, 91–108.

Small, Deborah A and Jennifer S Lerner (2008). "Emotional policy: Personal sadness and anger shape judgments about a welfare case". *Political Psychology* 29.2, 149–168.

Stein, Rachel M. (Aug. 2015). "War and Revenge: Explaining Conflict Initiation by Democracies". *American Political Science Review* 109.3, 556–573.

Steinberg, Blema S. (1996). *Shame and humiliation: presidential decision making on Vietnam*. Pittsburgh, Pa: University of Pittsburgh Press. 397 pp.

Sznycer, Daniel et al. (2016). "Shame closely tracks the threat of devaluation by others, even across cultures". *Proceedings of the National Academy of Sciences* 113.10, 2625–2630.

Sznycer, Daniel et al. (2018). “Cross-cultural invariances in the architecture of shame”. *Proceedings of the National Academy of Sciences* 115.39, 9702–9707.

Tomz, Michael and Jessica L. P. Weeks (2016). “Military Alliances and Public Support for War”. *Annual Meeting of the American Political Science Association*.

Torres, Walter J and Raymond M Bergner (2010). “Humiliation: its nature and consequences”. *Journal of the American Academy of Psychiatry and the Law Online* 38.2, 195–204.

Vertzberger, Yaacov YI (1998). *Risk taking and decision making: Foreign military intervention decisions*. Stanford University Press.

Walker, Julian and Victoria Knauer (2011). “Humiliation, self-esteem and violence”. *Journal of Forensic Psychiatry & Psychology* 22.5, 724–741.

Wang, Zheng (2012). *Never forget national humiliation: historical memory in Chinese politics and foreign relations*. New York: Columbia University Press. 293 pp.

Watson, David and Lee Anna Clark (Aug. 1, 1999). *The PANAS-X: Manual for the Positive and Negative Affect Schedule - Expanded Form*. The University of Iowa’s Institutional Repository.

Webber, David and Arie W Kruglanski (2018). “The social psychological makings of a terrorist”. *Current opinion in psychology* 19, 131–134.

Webber, David et al. (2018). “The road to extremism: Field and experimental evidence that significance loss-induced need for closure fosters radicalization.” *Journal of personality and social psychology* 114.2, 270.

Weiss, Jessica Chen (2014). *Powerful patriots: nationalist protest in China’s foreign relations*. New York, NY: Oxford University Press. 341 pp.

Zeitzoff, Thomas (2014). “Anger, exposure to violence, and intragroup conflict: A “lab in the field” experiment in southern Israel”. *Political Psychology* 35.3, 309–335.

Zong, Hairen (2002). “The Bombing of China’s Embassy in Yugoslavia.” *Chinese Law & Government* 35.1, 73.

Supporting Information for Humiliation and International Conflict Preferences

Table of Contents

A Summary Statistics

A.1 Survey Experiment Summary Statistics

Table 1: Summary Statistics

Statistic	Mean	St. Dev.	Min	Max
Intervention Support	0.49	0.38	0.00	1.00
Age	36.40	11.58	18	84
Male	0.48	0.50	0	1
Education	4.23	1.31	1	7
Income	4.24	2.70	1	9
MTurk Today	223.51	1,960.02	0	30,000
MTurk Week	74.75	222.51	0	5,000
Mturk Life	20,592.38	353,278.30	0	10,000,000
Control Essay	0.40	0.49	0	1
Humiliation Essay	0.29	0.46	0	1
Shame Essay	0.31	0.46	0	1
Humiliation Score	0.24	0.29	0.00	1.00
Shame Score	0.28	0.31	0.00	1.00
Hostility Score	0.23	0.27	0.00	1.00
Fear Score	0.18	0.26	0.00	1.00
Status Invoked	0.50	0.50	0	1
Costly	0.50	0.50	0	1
Liberalism	3.82	1.81	1	6
Democrat	3.88	1.68	1	6
Military Assertiveness	0.46	0.21	0.00	1.00

A.2 Lab Experiment Summary Statistics

Table 2: Subject-level Summary Statistics

Statistic	Mean	St. Dev.	Min	Max
Age	21.51	2.98	18.00	38.00
Male	0.26	0.44	0	1
Education	3.58	1.13	2.00	7.00
Income	4.55	3.32	1.00	9.00
Liberalism	4.56	1.34	1.00	6.00
Humiliation Essay	0.51	0.50	0	1
Democrat	4.43	1.42	1.00	6.00
Military Assertiveness	0.34	0.17	0.00	0.78
Pre-humiliation Score	0.28	0.12	0.20	0.80
Pre-shame Score	0.26	0.11	0.20	0.80
Pre-hostility Score	0.26	0.10	0.20	0.83
Pre-fear Score	0.30	0.13	0.20	0.90
Post-humiliation Score	0.30	0.15	0.20	0.97
Post-shame Score	0.27	0.13	0.20	1.00
Post-hostility Score	0.28	0.14	0.20	0.93
Post-fear Score	0.28	0.13	0.20	0.83

Table 3: Round-level Summary Statistics

Statistic	Mean	St. Dev.	Min	Max
Attack	0.36	0.48	0.00	1.00
High Cost	0.49	0.50	0.00	1.00
First Mover	0.50	0.50	0.00	1.00

B Survey Experiment Demographics

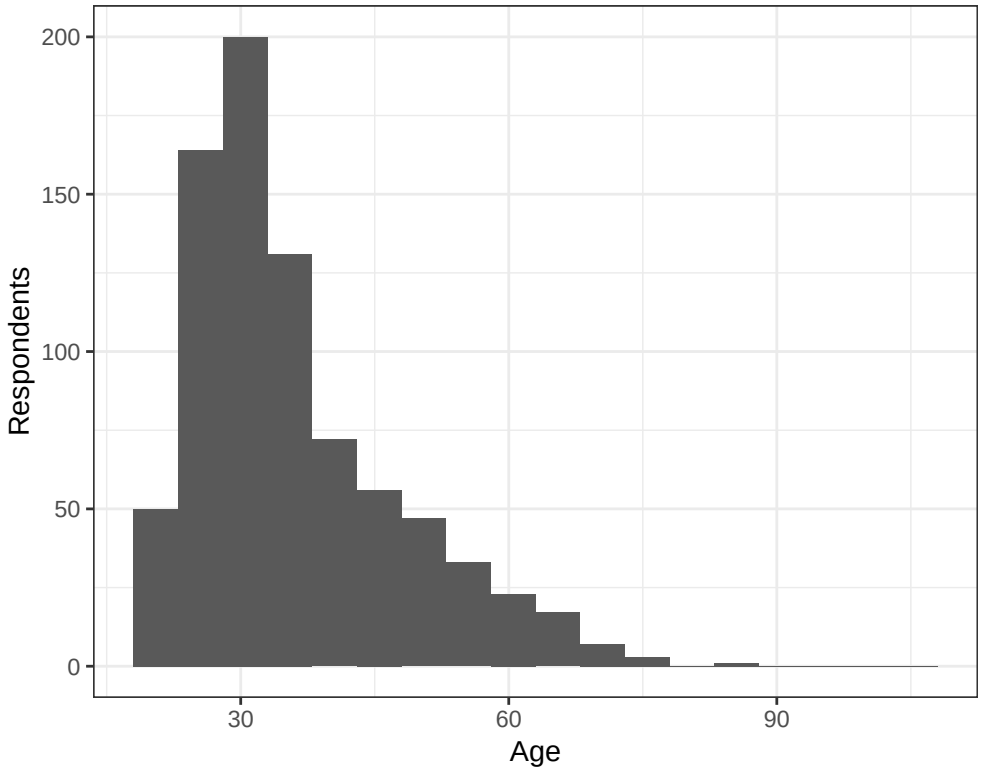


Figure 7: Age of Respondents

Figure 8: Sex of Respondents

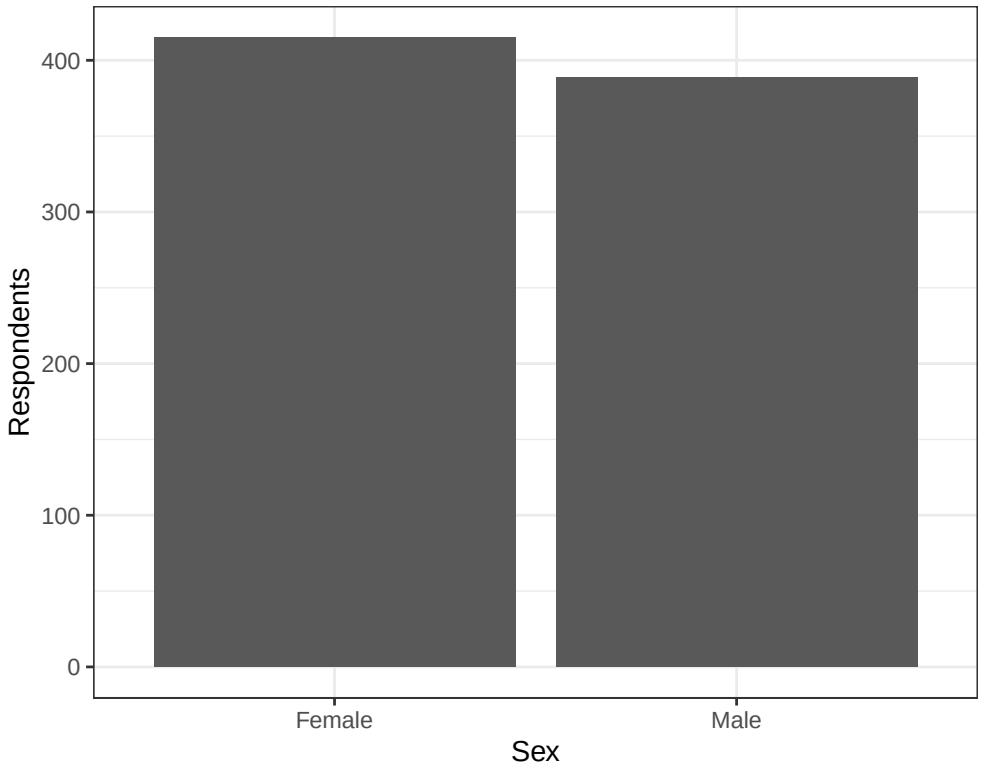


Figure 9: Race of Respondents

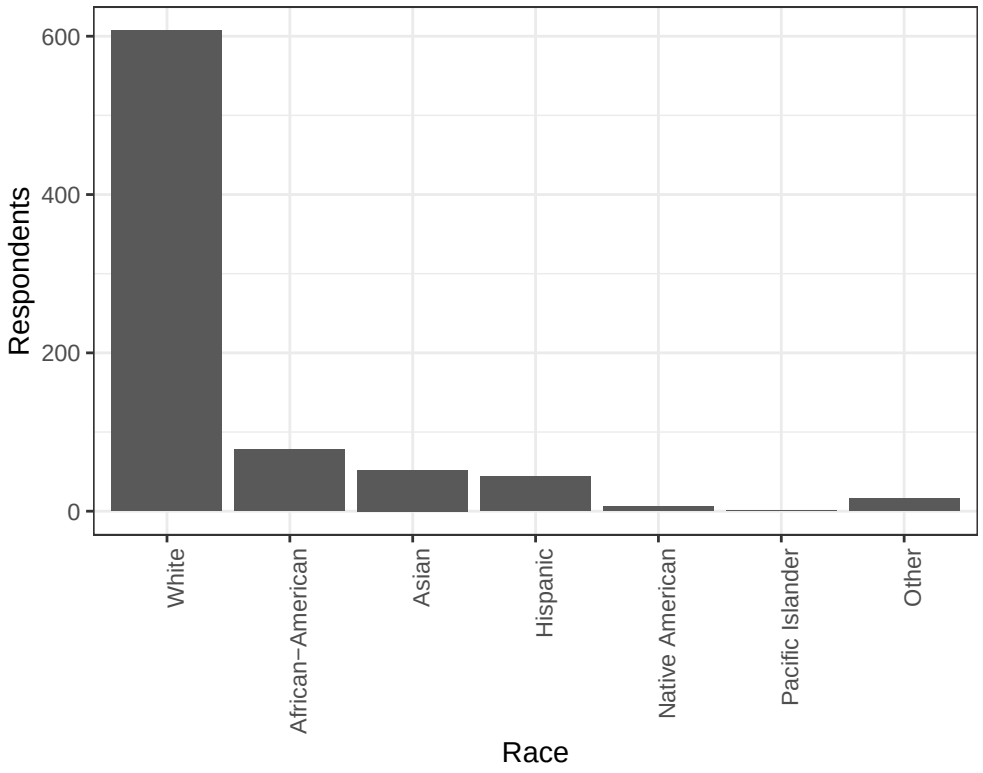


Figure 10: Ideology of Respondents

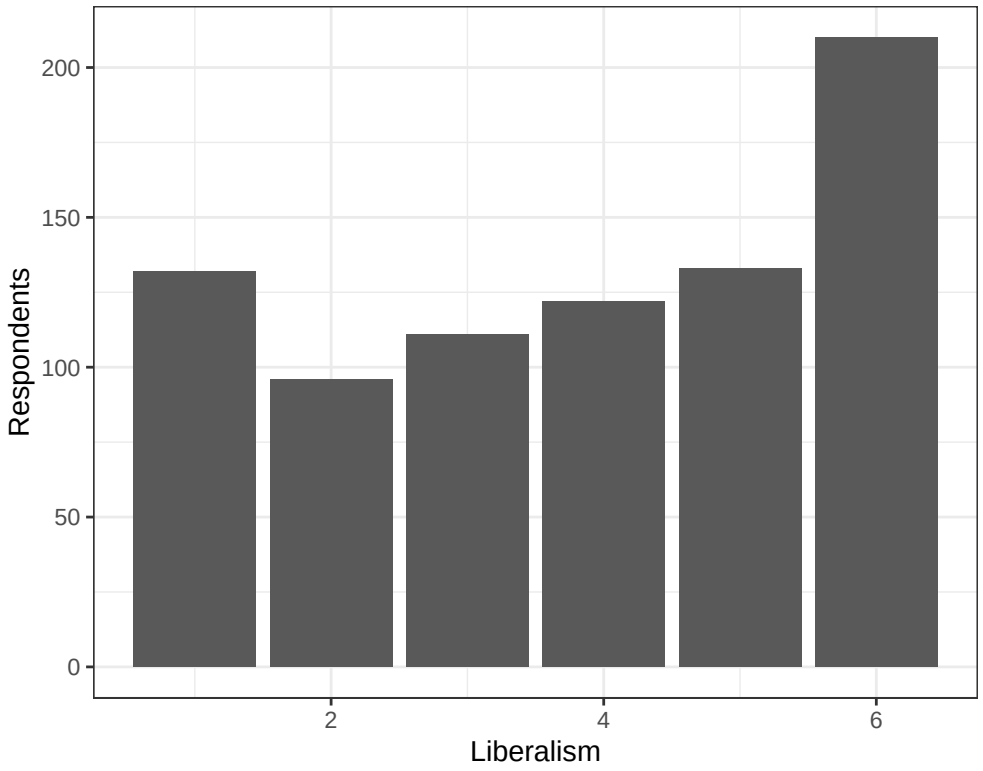


Figure 11: Party of Respondents

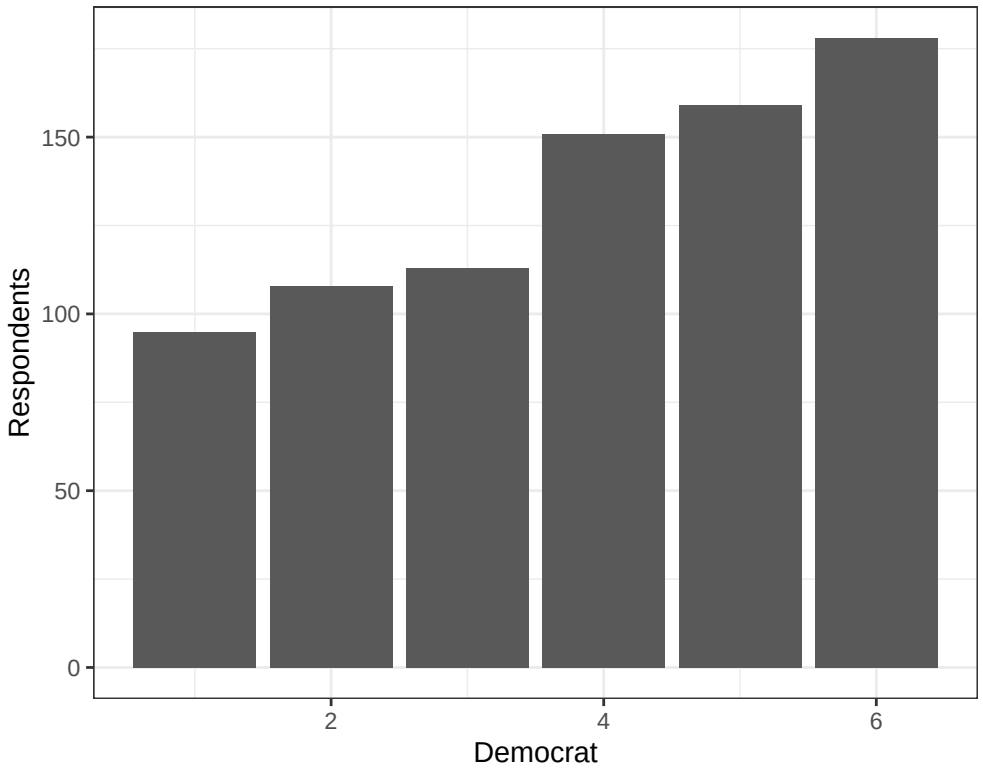
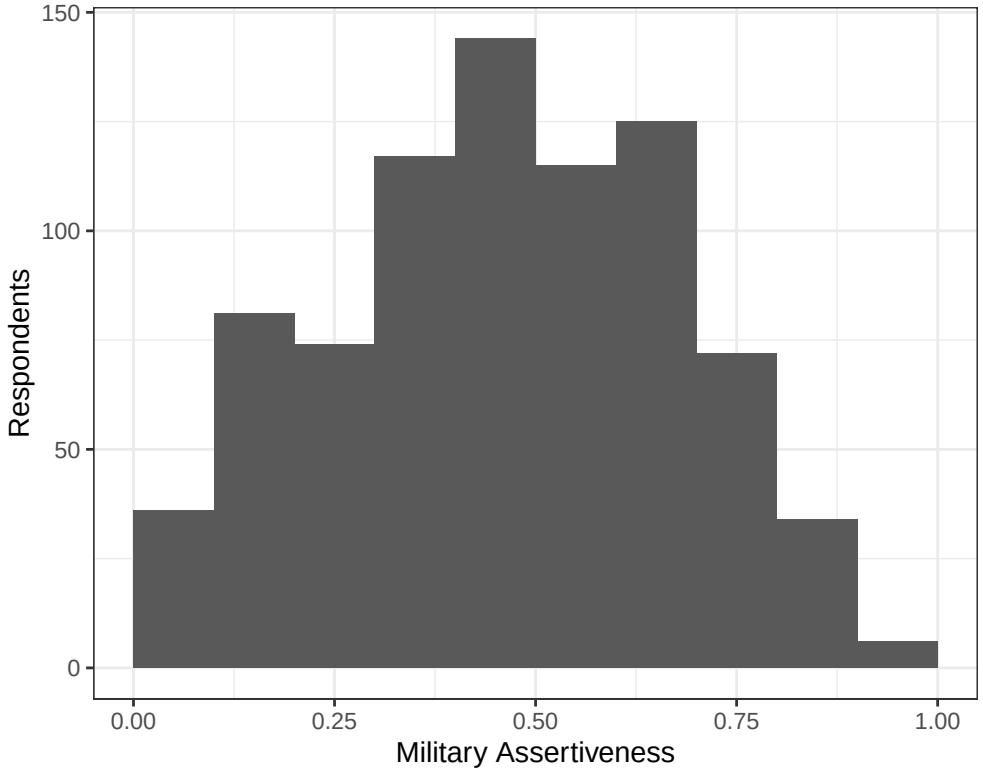
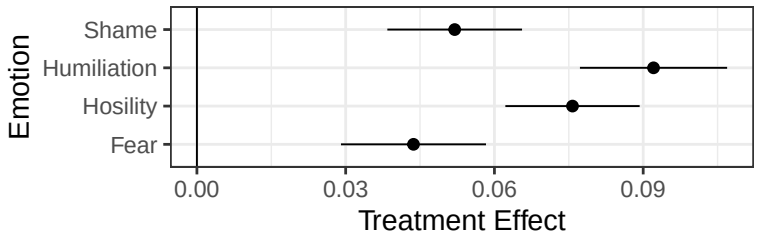


Figure 12: Military Assertiveness of Respondents



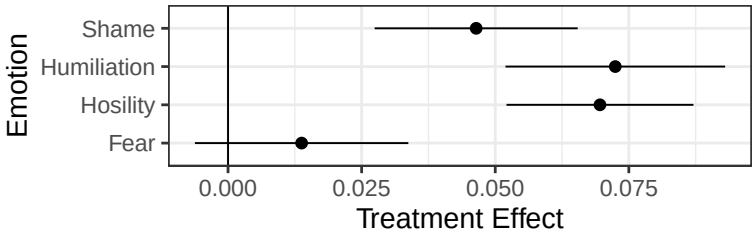
C Lab Experiment: Effect of Essay on Emotions

Figure 13: Effect of Essay on Emotions (Between Subjects)



The results for each emotion come from separate regression models with the control as the comparison category. The bars show 95% confidence intervals. All variables scaled from 0 to 1.

Figure 14: Effect of Essay on Emotions (Within Subjects)



The results for each emotion come from separate regression models with the control as the comparison category. The bars show 95% confidence intervals. All variables scaled from 0 to 1.

D Examining Heterogeneous Effects

Do respondents respond the same way to the humiliation treatment across demographic groups? I will focus on the survey results because there are less demographic differences among the laboratory participants, who are all students at the same university. Further, the smaller sample of the laboratory experiment makes it harder to estimate heterogeneous effects with confidence. I compare the emotional response to the humiliation essay with the response to the control essay across pretreatment observables.

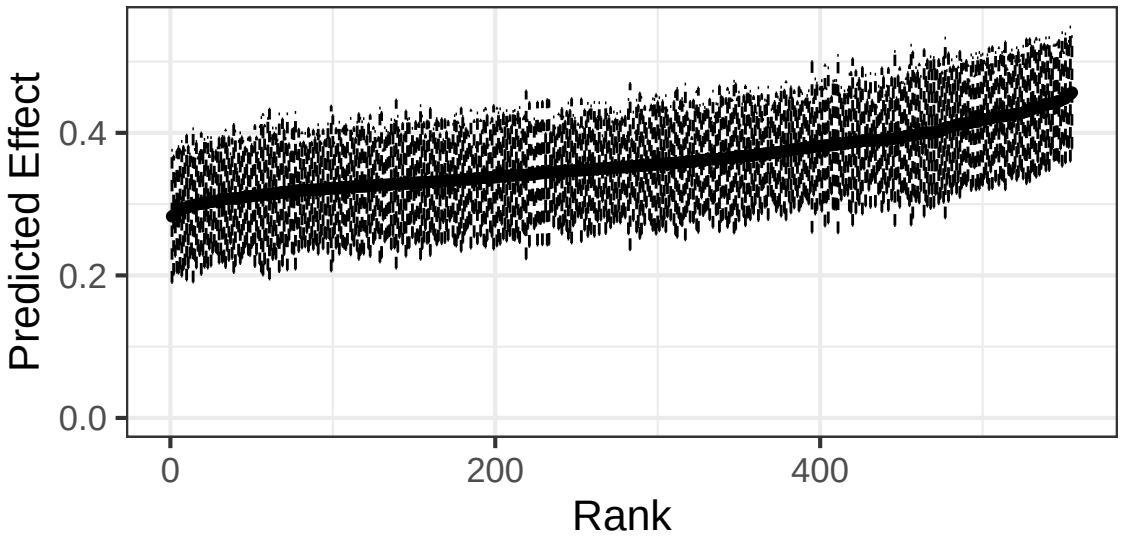
To analyze this, I use a causal forest model because these models have several properties that make them especially desirable for exploring heterogeneous effects. They allow me to run a single nonparametric model that permits the treatment effect to potentially be heterogeneous across all pretreatment covariates, without assuming that it is heterogeneous across any of them. Further, causal forest estimates have the asymptotic properties of consistency and normality (Wager and Athey 2018). The results below come from a single causal forest model that contains 4,000 trees.

To examine variation in effects across groups, I first predict the effect for each individual and plot those effects by their ranks (White II 2018). The more heterogeneity exists, the greater the difference in the predicted effect among individuals. I also show 95% confidence intervals for these predicted effects. Figure 15 shows that the model predicts an increase in the measure of humiliation across all individuals in response to the humiliation treatment. Further, the point estimate of the predicted effect ranges from just below 0.3 to just above 0.4 on the 1 point scale. This suggests that subjects respond broadly similarly to the humiliation treatment.

I also examine each pretreatment covariate specifically to see if the effect of the humiliation essay differs across it. The full results are available upon request, but I summarize the findings here. For continuous and ordinal variables, I examine how the effect differs for each quartile. While the difference between men and women does not quite reach the threshold of significance, the evidence does suggest that women may have responded more strongly than men to the treatment by about 0.1 on the 1 point scale. The difference between Democrats and Republicans likewise does not quite reach significance but is similarly suggestive that democrats may have responded by about 0.1 points more to treatment on average. The only difference that is statistically significant is when the first quantile of military assertiveness is compared to all other quantiles. In this case, it appears that those in the lowest quantile of military assertiveness responded more strongly to the treatment by about 0.15 points on average.

Considering that more than 25 different covariate levels are being compared here, we would

Figure 15: Estimated Treatment Effect for Each Individual



This is the estimated effect of the humiliation essay on a respondent's humiliation score compared with the control condition.

expect to find some significant results by chance. The fact that only 1 comparison is significant suggests that any heterogeneity in the effect is likely to be limited, which is consistent with Figure 15.

E Attrition on Treatment in Survey Experiment

The survey experiment suffers from attrition across treatment groups. Respondents assigned the humiliation and shame essays were more likely to drop out of the experiment than respondents assigned the control essay. This would be particularly problematic if a determinate of intervention support correlated with factors that made respondents more likely to drop out in certain conditions. However, neither military assertiveness, ideology, nor partisanship are significantly different between respondents in either the humiliation group or shame group and respondents in the control group. The only observable that is unbalanced is that men are slightly less likely to appear in the humiliation group (See Appendix section F for full balance tests). This should bias against finding that humiliation increased support for intervention because being male and supporting intervention are positively correlated (Pearson's $r = 0.078$). However, this sex unbalance between conditions may exist due to chance, and modeling the propensity of respondents to drop out of the experiment finds no significant relationship with any observed demographic factor, including sex (see Table 5 below).

One possible explanation for the selection on treatment is that respondents who anticipated experiencing more intense emotions as a result of the treatment essays were more likely to drop out of the experiment. Theoretically this should lead to an underestimate of the effect because the more intense the emotion is, the stronger its influence on motivation and attention should be. Likewise, more intense emotions should interfere more with the processing of information antithetical to their action tendencies (like cost).

Table 4: Respondents in Each Essay Group

Control	320
Humiliation	235
Shame	249
Total	804

During the course of the experiment, several strategies were tried to minimize attrition across treatment groups. These strategies include, doubling the payment for respondents in all conditions, moving the demographic (but not ideological) questions to the beginning of the survey, and using embedded data rather than the built-in Qualtrics randomization element to assign treatments (See Appendix section G.1 for a complete explanation). In the results shown in the main text, dummy variables for these changes to the survey are included, but the results are not sensitive to their removal.

Regardless of what is driving selection, the factors that lead respondents to drop out of the humiliation condition are likely similar to those that cause respondents to drop out of the shame condition. For this reason, subsetting on these two conditions should increase confidence that these factors are not driving the results. Appendix section L shows the results when only respondents who complete the survey in either the humiliation or shame condition are included. The loss of statistical power that comes with losing 320 out of 804 respondents renders the effects in the overall model insignificant, but the effects of humiliation and cost continue to be in the expected direction. Because the findings suggest that almost the entirety of the effect of humiliation comes through suppressing sensitivity to cost, it makes sense that a smaller sample might be unable to detect the effect of humiliation when averaging over respondents in the costly and not costly conditions. Most importantly, even in this subset, humiliation in the costly condition significantly increases support for intervention. This rules out the concern that respondents who complete the survey in the shame and humiliation conditions might be less sensitive to costs in general. This may also help limit the concern that individuals who are high-self monitors might be both more accurate at reporting both their humiliation and shame and more likely to support intervention (Yarhi-Milo 2018, 87). However, because self-monitoring and other potential confounders that could be associated with attrition cannot be directly observed, I cannot entirely rule them out.

I model the probability of a respondent dropping out of the experiment with a logistic regression. The First Wave dummy is negatively related to attrition because for the 200 respondents in this wave, the demographic questions were asked after the placebo questions. Because these covariates will be missing for respondents who dropped out in the First Wave, those that dropped out during the First Wave get kicked out of the model due to missing data.

Table 5: Attrition Model

	Attrition
Intercept	-1.22^{*}
	(0.50)
Humiliation Essay	1.04^{***}
	(0.24)
Shame Essay	0.95^{***}
	(0.24)
Age	−0.01
	(0.01)
Income	−0.02
	(0.04)
Male	0.22
	(0.18)
Education	−0.08
	(0.07)
African-American	−0.20
	(0.31)
Asian	0.10
	(0.36)
Hispanic	0.20
	(0.36)
Native American	0.52
	(0.74)
Pacific Islander	−11.78
	(535.41)
Other	−0.42
	(0.79)
MTurk Today	0.00
	(0.00)
MTurk Week	0.00
	(0.00)
MTurk Life	−0.00
	(0.00)
First Wave	-4.04^{***}
	(1.02)
Third Wave	0.03
	(0.30)
Forth Wave	−0.11
	(0.23)
Log Likelihood	−390.48
Num. obs.	972

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

F Balance Tests

Figure 16: Survey Balance: Humiliation vs. Control

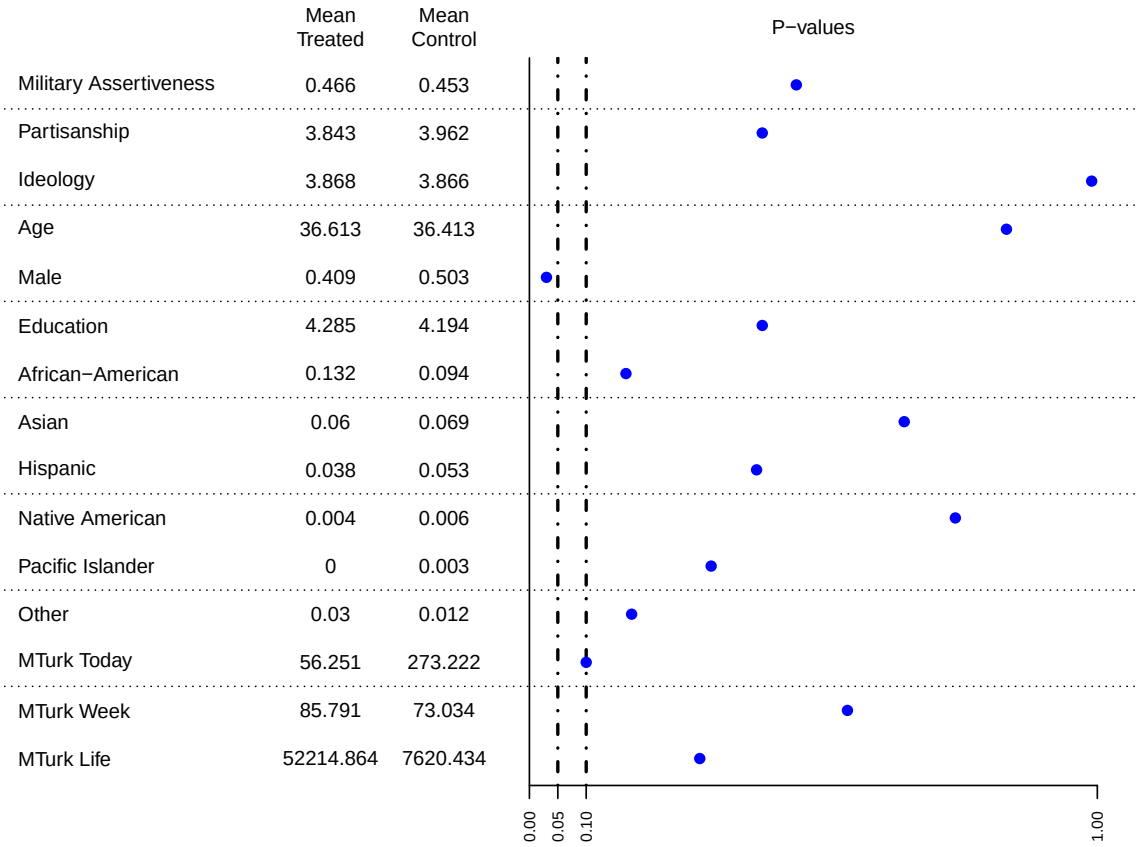


Figure 17: Survey Balance: Shame vs. Control

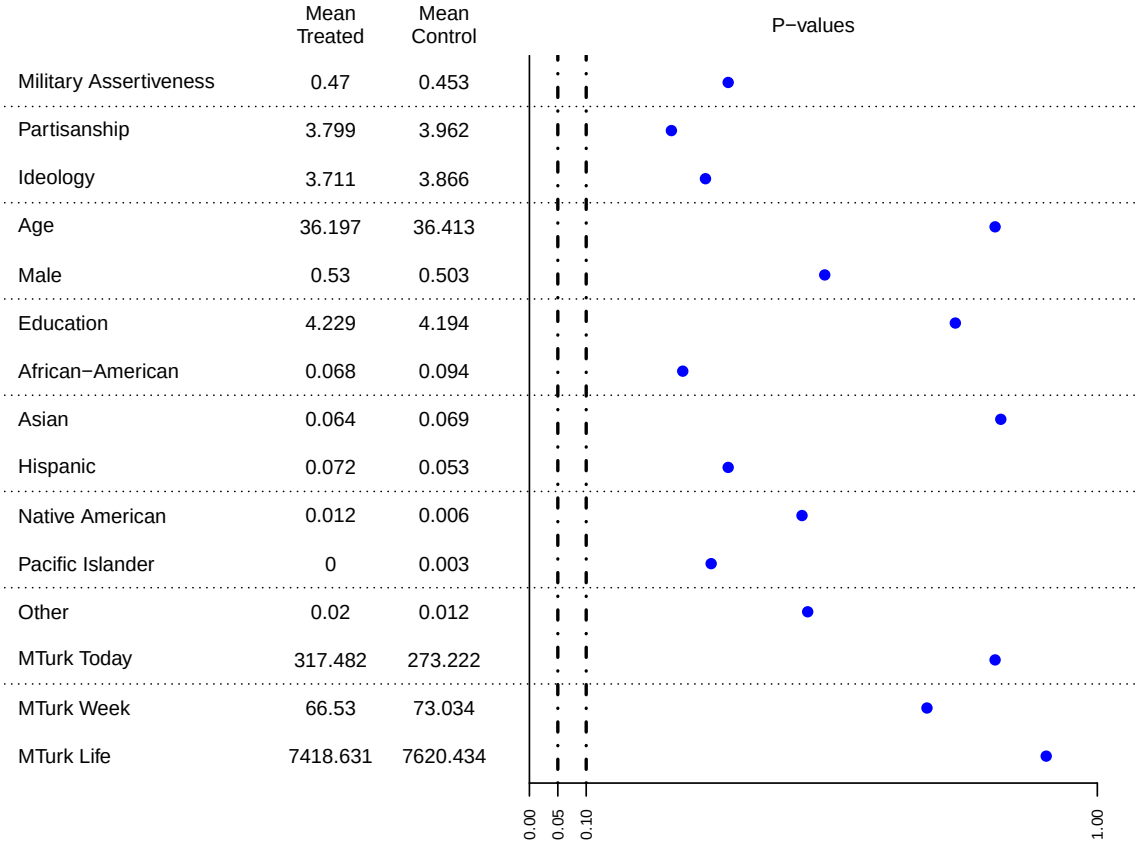
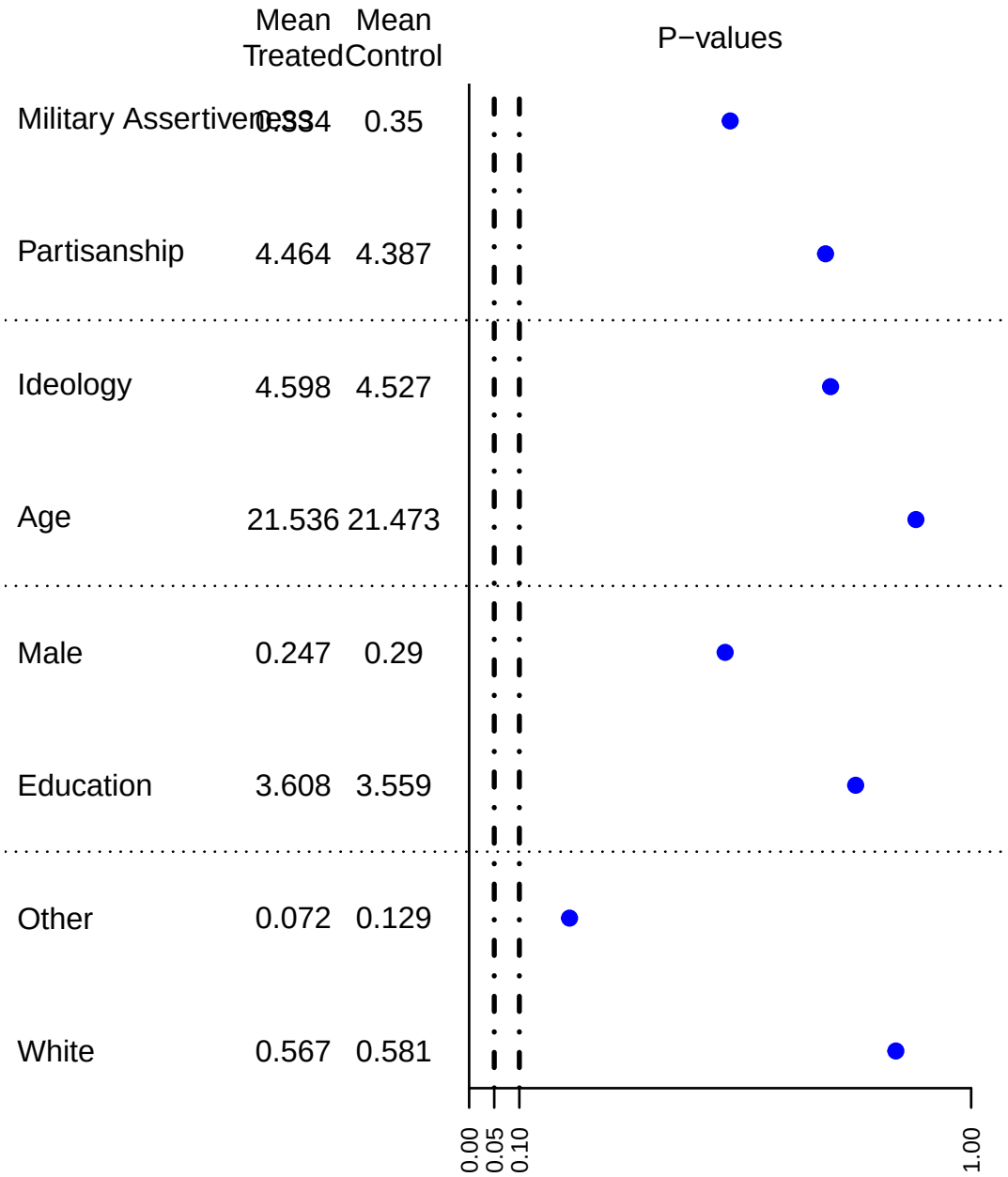


Figure 18: Lab Balance: Humiliation vs. Control



G Full Survey Instrument

G.1 Difference Between Versions

The order of sections here reflects the order used for the final 604 respondents. For these respondents, randomization was preformed with embedded data. For the first 200 respondents, the demographic questions came after the placebo questions. For these 200 respondents, randomization was conducted with the built-in Qualtrics randomization function. In an attempt to decrease attrition, 60 respondents (out of the group of 604) were recruited with double the $1 pay of the other respondents. After 400 respondents had already completed the survey, the first 'as' was added to the status condition. In all the results shown, 3 dummy variables are added to account for these differences, but their removal does not affect the substantive results.

G.2 Demographics Questions

How old are you (in years)?
What is your gender?

- Male
- Female

What is the highest level of education you have completed?

- Less than high school
- High school or GED
- Some college
- 2-year college degree
- 4-year College degree
- Doctoral degree
- Professional degree (e.g., JD or MD)

What is your race?

- Caucasian
- African-American
- Asian
- Hispanic
- Native American
- Pacific Islander

- Other

What is your combined annual household income?

- <30,000
- 30,000-40,000
- 40,000-50,000
- 50,000-60,000
- 60,000-70,000
- 70,000-80,000
- 80,000-90,000
- 90,000-100,000
- >100,000

Not including this current study, approximately how many MTURK studies have you participated in today?
Not including this current study, approximately how many MTURK studies have you participated in this week?
Not including this current study, approximately how many MTURK studies have you participated in your life?

G.3 Essay Tasks

[Respondents had to write at least 140 characters before advancing to the next question.]
Control Essay

> We'd like you to describe in detail your last trip to the grocery store. Begin by writing down what you remember of the event and continue by writing as detailed a description of the event as is possible.
>
> Please write for several minutes. (Please avoid directly identifying yourself or others to help protect privacy. Instead other persons may be referred to using their relationship to you (e.g. friend, neighbor, classmate, stranger, etc.)

Humiliation Essay

> We'd like you to describe in detail the one situation that makes you (or has made you) feel that, through no fault of your own, you were unjustly ridiculed or degraded and you were unable to immediately resolve the situation, meaning that you felt humiliated. This could be something you are presently experiencing or something from the past. Begin by writing down what you remember of the humiliating event and continue by writing as detailed a description of the event as is possible. WHAT is the thing that makes you the most humiliated? WHY does it make you so humiliated?

Please write for several minutes. (Please avoid directly identifying yourself or others to help protect privacy. Instead other persons may be referred to using their relationship to you (e.g. friend, neighbor, classmate, stranger, etc.)

Shame Essay

We'd like you to describe in detail one situation that makes you (or has made you) feel that you knowingly acted unjustly and your activity was exposed, making you feel shame. This could be something you are presently experiencing or something from the past. Begin by writing down what you remember of the shameful event and continue by writing as detailed a description of the event as is possible.

WHAT is the thing that makes you feel the most shame? WHY does it shame you so much? Please write for several minutes. (Please avoid directly identifying yourself or others to help protect privacy. Instead other persons may be referred to using their relationship to you (e.g. friend, neighbor, classmate, stranger, etc.)

G.4 Emotional Measures

For each component in the scale, respondents rate how much it describes how they feel from 1 (very slightly or not at all) to 5 (extremely). The items are displayed in a list to respondents. Item order is randomized and factors are not labeled as to what emotion they correspond to.

Table 6: Emotional Measures

Emotion	Factors
Humiliation	Put down, Wronged, Debased, Bullied, Powerless, Scorned
Fear	Afraid, Scared, Frightened, Nervous, Jittery, Shaky
Guilt	Guilty, Disgusted with self, Angry at self, Blameworthy, Ashamed, Dissatisfied with self
Hostility	Angry, Hostile, Irritable, Scornful, Disgusted, Loathing

G.5 Vignette

The following questions are about US relations with other countries around the world. You will read about a situation our country has faced many times in the past and will probably face again. We will describe the situation and ask you for your opinion on what decisions you would make.

A foreign government has begun a military invasion, sending its troops across the border of a smaller neighboring country. The invaded country shares interests with the US but is not a US ally.

G.5.1 Status Conditions

[The order of the presentation of the status condition and the cost condition is randomized.]

Allowing the invasion to succeed would harm US interests [in Status Condition: as well as US world status].

G.5.2 Cost Conditions

Best estimates suggest that if the United States intervened, the operation would [in Not Costly Condition: not] be very costly to the US.

G.5.3 Outcome Question

[These two questions are combined to form a 4 point scale]
If the attacker cannot be talked into withdrawing, should our government use our military to push back the invaders, or should we stay out of it?

- Push back invaders
- Stay out of it

Do you fell strongly about this, or not very strongly?

- Strongly
- Not very strongly

G.6 Placebo Questions

Do you believe that the country being invaded is a democracy?

- Yes
- No

Do you believe the invader is committing major human rights violations?

- Yes
- No

G.7 Ideology, Party ID, and Military Assertiveness

[Questions about liberal and conservative ideology combined to form 6 point scale]
Generally speaking, would you consider yourself to be a liberal, a conservative, a moderate, or haven't you thought much about this?

- Liberal

- Conservative
- Moderate
- Haven't thought much about this

[If liberal is selected] Do you think of yourself as a strong liberal?

- Yes
- No

[If conservative is selected] Do you think of yourself as a strong conservative?

- Yes
- No

[If moderate or haven't thought much about this is selected] Do you think of yourself as more like a liberal or more like a conservative?

- Liberal
- Conservative

[Questions about party ID combined to form 6 point scale]
Generally speaking, do you think of yourself as a Democrat, a Republican, an Independent, or what?

- Democrat
- Republican
- Independent
- Other

[If Democrat is selected] Would you call yourself a strong Democrat or not a strong Democrat?

- Strong Democrat
- Not a strong Democrat

[If Republican is selected] Would you call yourself a strong Republican or not a strong Republican?

- Strong Republican
- Not a strong Republican

[If Independent or other is selected] Do you think of yourself as closer to the Democratic Party or the Republican Party?

- Closer to the Republican Party

- Closer to the Democratic Party

[The following items compose the military assertiveness scale. Respondents rate items 1–8 Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree, or Strongly disagree. Item 2 is reverse coded. Items 1–8 are displayed together with item order randomized. Items 9 and 10 are displayed together and respondents rate them as Not very good, Somewhat good, or Extremely good.]

1. The best way to ensure world peace is through American military strength
2. The use of military force only makes problems worse
3. Rather than simply reacting to our enemies, it's better for us to strike first
4. Generally, the more influence America has on other nations, the better off they are
5. People can be divided into two distinct classes: the weak and the strong
6. The facts on crime, sexual immorality, and the recent public disorders all show that we have to crack down harder on troublemakers if we are going to save our moral standards and preserve law and order
7. Obedience and respect for authority are the most important virtues children should learn
8. Although at times I may not agree with the government, my commitment to the U.S. always remains strong
9. When you see the American flag flying, does it make you feel extremely good, somewhat good, or not very good?
10. How important is military defense spending to you personally? Is it very important, important, or not at all important?

H Full Lab Instrument

[The demographics and ideology questions are the same as in the survey experiment with questions about MTurk use omitted. The emotional measures are identical to those in the survey experiment. They are administered after the practice rounds to get pretreatment measures and after the essay treatment to get post-treatment measures. The essay treatments are the same as those from the survey experiment except that the shame essay condition is not included.]

H.1 Instruction Screen

The purpose of this session is to study how people make decisions in a particular situation. Feel free to ask a monitor questions as they arise. From now until the end of the session, unauthorized communication of any nature with other participants is prohibited. During the session you will make money. Upon completion of the session, *one* of the rounds of the game will be *randomly selected* for each player, and the amount you earned in that round will be paid to you. Payments are

confidential: no other participant will be told the amount of money you make. Before the rounds eligible for payment begin, there will be 5 practice rounds to allow you to learn how the game works.

During each game, you will be randomly paired with a *different* person. No one, however, will know the identity of the person they are paired with. Nor will these identities be revealed after the session is complete.

In each pair, one person will have the role of first mover, and the other will have the role of second mover. The amount of money you earn depends on the decision you make and on the decision of the person you are paired with. You make your decision by choosing one of the options available to you and recording it on your computer.

You and your opponent each represent different countries that are deciding whether to go to war with each other. The first mover can choose either to attack or not. The second mover observes this choice and can then choose to either to attack or not. Each round you will be informed how much you and your opponent will earn for each outcome in the event that game is randomly selected at the end of the session.

After the practice rounds end, there are 4 rounds of the game that could randomly be selected for payment. Next, each participant will complete a personal essay task. Lastly, there are 4 more rounds of the game that could be randomly selected for payment.

H.2 First Mover Selection Screen

[For each game, respondents are randomly matched to an opponent and assigned to either be the first mover or the second mover. Each pair is randomly assigned to either play the game in the high cost of war condition or the low cost of war condition.]

Your opponent has the same payoffs as you do. These are your payoffs for this round:
If both players choose Don't Attack, you will receive the following dollar amount:
6
If you choose Attack and your opponent chooses Don't Attack:
[In high cost condition: 5] 7
If you choose Don't Attack and your opponent chooses Attack:
[In high cost condition: 2] 4
If both players choose Attack:
[In high cost condition: 3] 5
You are moving first, so you must choose either Attack or Don't Attack without knowing what your opponent will chose. You Choose:

- Attack
- Don't Attack

H.3 Second Mover Selection Screen

Your opponent has the same payoffs as you do. These are your payoffs for this round:
If both players choose Don't Attack, you will receive the following dollar amount:
6
If you choose Attack and your opponent chooses Don't Attack:

[In high cost condition: 5] 7
If you choose Don't Attack and your opponent chooses Attack:
[In high cost condition: 2] 4
If both players choose Attack:
[In high cost condition: 3] 5
You are moving second, so you get to see what your opponent chose before deciding. They chose:
[If the first mover choose Attack: Attack] Don't Attack
You Choose:

- Attack
- Don't Attack

H.4 Round Payoff Screen

Your opponent chose: [if opponent chose Attack: Attack] Don't Attack
You chose: [if player chose Attack: Attack] Don't Attack
Your Profit for this round in dollars is: [payoff displayed]

H.5 Final Payoff Screen

[After all of the games are played, one is randomly selected to determine payment. Respondents are informed of the round chosen and the amount they will receive.]

Out of the 8 games played, the following game was randomly selected for payment: [number 1–8 indicating the game selected]

In addition to the $5 showup fee, you earned this dollar amount in the game randomly selected for payment: [amount they earned in that round]

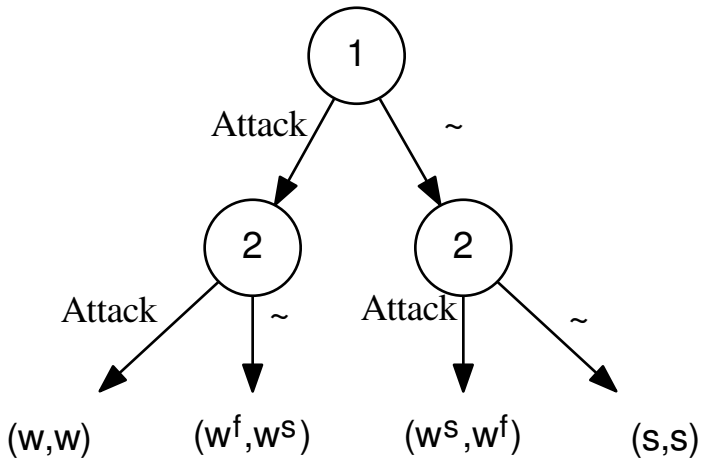
I Lab Experiment Extensive Form Game Diagram

This is the extensive form game diagram of the incentivized game that respondents played during the lab experiment. They war payoffs w come from Equation 2 in the main text. The dollar value of the s payoff is always \$6. When the cost of war is high, the war payoffs are: w = \$3, w^f = \$5, and w^s = \$2. When the cost of war is low, the war payoffs are: w = \$5, w^f = \$7, and w^s = \$4.

The money-valued war payoffs come from the following utility functions for different values of the probability of winning p.

$$\begin{aligned} w &= p - c \\ w^f &= \bar{p} - c \\ w^s &= \underline{p} - c \\ \text{where: } \bar{p} &> p > \underline{p} \end{aligned} \tag{2}$$

Figure 19: Extensive Form Game



J Lab Experiment Within-subjects Results

The within-subjects tests are conducted using logistic regression with whether a subject attacked in a particular round as the dependent variable.[14] Because the within-subjects results allow use of within-subject measures of change in humiliation but the essay still manipulates unintended emotions, I use the interaction term between the humiliation essay and the measure of humiliation to get the effect of increases in the target emotion created by the treatment (see Appendix section C for the effect the essay on humiliation). Figure 20 shows the coefficient on the interaction term between the treatment and humiliation across cost conditions. The effect is in the hypothesized direction when conflict is costly, but, unlike the between-subject results, this effect is not statistically significant.

One possible explanation for this is that the effect of the essay treatment on humiliation decays over time. If so, as the number of rounds after treatment increases, the effect dissipates, making it harder to detect. My pre-analysis plan includes a strategy to examine this, which is to rerun the results, excluding the last two post-treatment rounds. Figure 21 shows these results. The point estimate of the effect when conflict is costly increases about five-fold when compared with the results that include all of the post-treatment rounds, and the effect becomes statistically significant. This suggests that humiliation does increase respondents' probability of attacking when attacking is costly and that this effect decays when respondents are no longer experiencing (or experiencing less) humiliation.

[14] In contrast with my pre-analysis plan, I was unable to include period fixed effects for the within-subjects results because periods perfectly correlate with treatment. I conduct placebo tests to assess the concern that period effects are driving the results. See Appendix section M.

The decay observed here does not imply that the effect of humiliation is too transient to influence policy. When humiliation acts through one's group identity, its effects are likely to persist for long periods of time because each new confrontation brings back memories of previous humiliating event (Löwenheim and Heimann 2008; Frijda 2007, 272-273). Current humiliation increases thinking about past humiliation through mood-dependent memory (McDermott 2004; Frijda 2007, 273). It can even create a "cognitive predisposition" to assess future events as humiliating (Lerner et al. 2015, 805). Past experiences of humiliation are associated with vulnerability to and fear of future humiliation (Hartling and Luchetta 1999, 263, 270). Indeed, the CCP often explicitly links current foreign policy humiliations to China's humiliating past (Wang 2012). This contrasts with the experiment where the conflict decision subjects face is separated from initial humiliation subjects write about.

Figure 20: Effect of Humiliation on Attack Probability (Within Subjects and Including All Rounds)

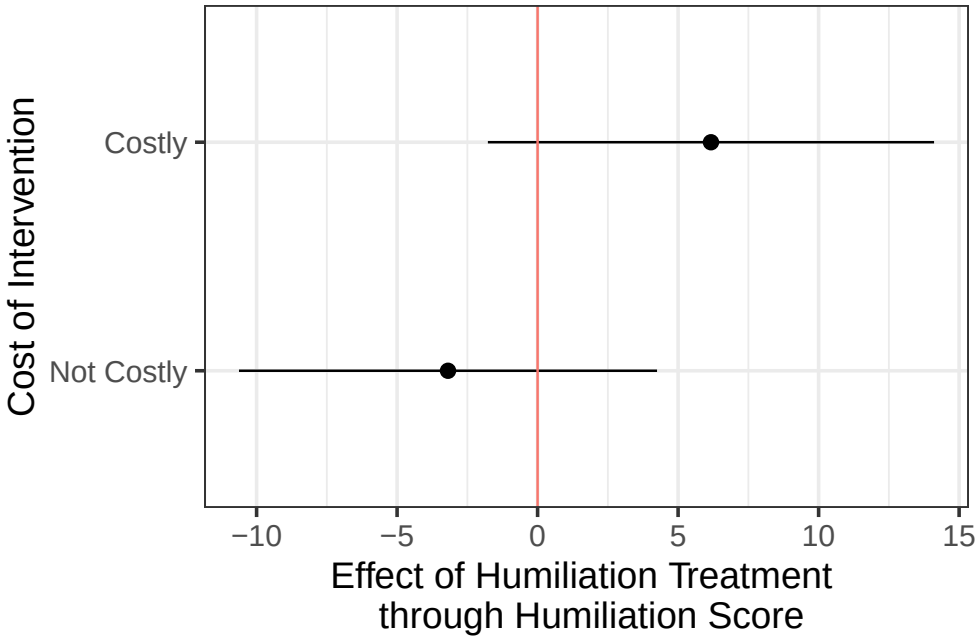
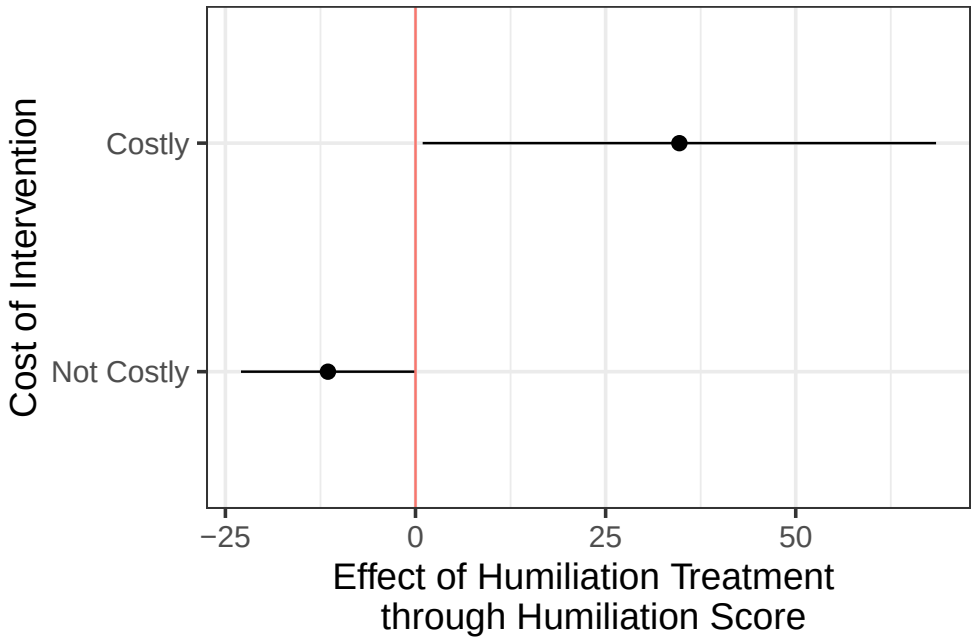


Figure 21: Effect of Humiliation on Attack Probability (Within Subjects and Excluding Last 2 Post-treatment Rounds)

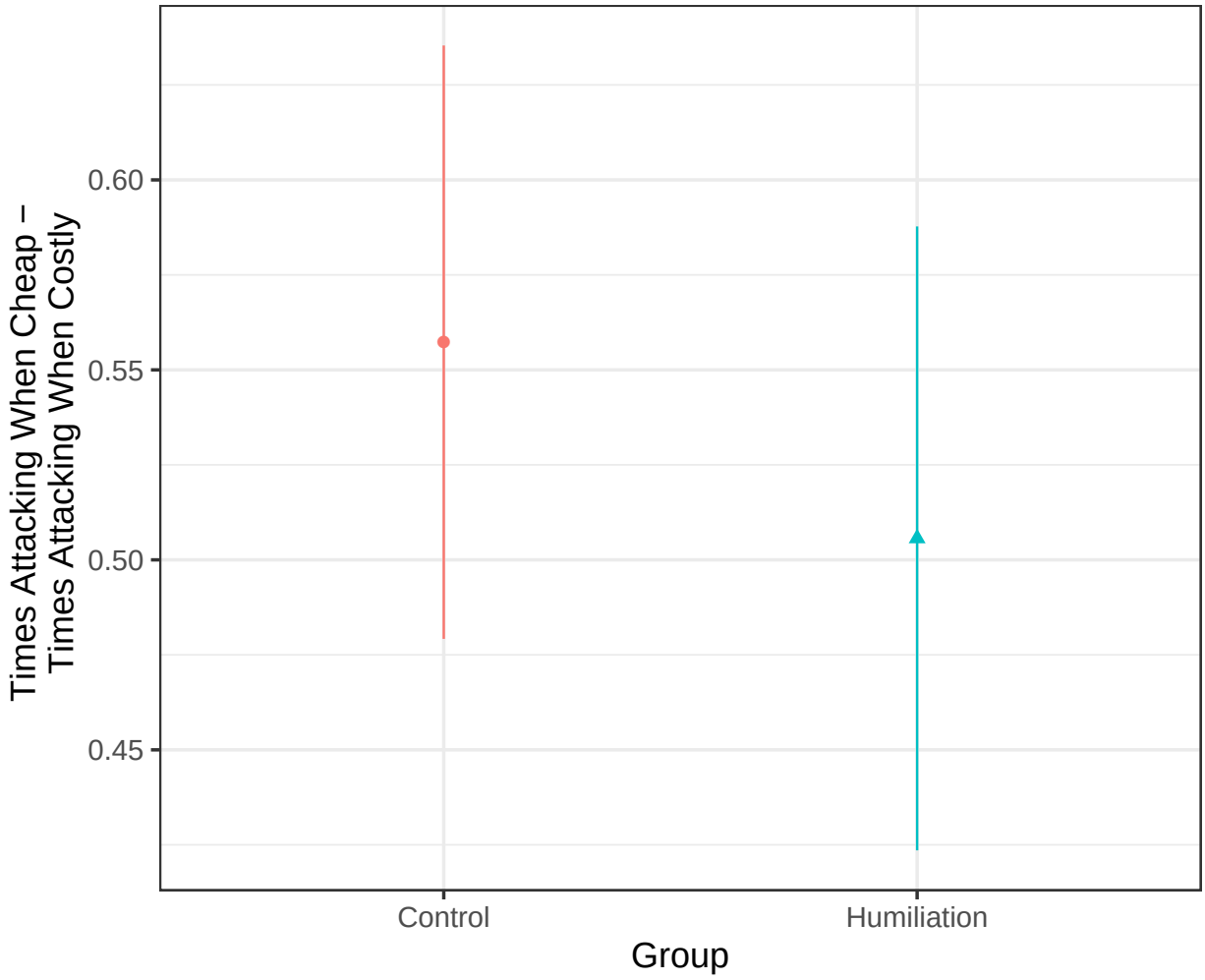


The bars show 95% confidence intervals. All variables scaled from 0 to 1.

J.1 Difference Between within-subjects Treatment Groups

Another way to think about the implications of the theory is that if the humiliated subjects are less sensitive to cost, then the difference between how often they attack on average when attacking is cheap as opposed to when attacking is costly should be smaller than the same difference for control subjects. Figure 22 shows two differences in means calculated using the rounds after the essay treatments are assigned. The first difference is the difference in mean attacks per subject per round for control subjects in the not costly vs. costly condition. The second difference is this quantity for subjects in the humiliation condition. As predicted, subjects in the humiliation condition have a smaller change in behavior across cost conditions. While the confidence intervals for the differences overlap, keep in mind that this analysis is not able to account for differences in the emotional responses of subjects to the essays, so it may underestimate the effect of humiliation due to subjects in the humiliation treatment condition who did not respond emotionally to the essay.

Figure 22: Humiliation ACME Sensitivity (Costly Sub-sample)



K Principle Component Analysis of Emotional Factors

If the humiliation measures introduced here are truly measuring an emotion of humiliation that is separate from the other emotions measured on the PANAS-X scale, a few empirical implications should hold. First, in a 4-factor principal component analysis—for humiliation plus fear, hostility (anger), and guilt (shame) from the PANAS-X scale—all of the humiliation items should load on the same factor. This is the case. Secondly, when a 3-factor model is used, the items from humiliation should continue to load on the same factor, and the items from hostility (anger) should also load on this factor. This is because "hostility is consubstantial to this emotion, so that people who feel humiliated perceive also that they are the targets of an external attack against their selves" (Fernández et al. 2018, 10). The results for the 3-factor model also show this to be the case, suggesting that the items used here successfully capture the concept of humiliation.

Table 7: Factor Loadings with 4 Factors

Variable	RC1	RC2	RC3	RC4	h2	u2	com
emo_put_down	**0.807**	0.262	0.238	0.025	0.777	0.223	1.397
emo_wronged	**0.857**	0.093	0.212	0.096	0.797	0.203	1.174
emo_debased	**0.710**	0.228	**0.351**	**-0.321**	0.782	0.218	2.165
emo_bullied	**0.839**	0.077	0.250	-0.080	0.779	0.221	1.213
emo_powerless	**0.718**	0.273	**0.309**	0.164	0.712	0.288	1.807
emo_scorned	**0.760**	0.279	**0.339**	-0.166	0.798	0.202	1.799
emo_afraid	**0.343**	0.280	**0.790**	-0.040	0.821	0.179	1.649
emo_scared	**0.341**	**0.303**	**0.784**	-0.117	0.836	0.164	1.749
emo_frightened	**0.399**	0.285	**0.746**	-0.070	0.802	0.198	1.881
emo_nervous	**0.349**	0.300	**0.724**	0.162	0.762	0.238	1.949
emo_jittery	**0.364**	0.243	**0.733**	0.186	0.763	0.237	1.874
emo_shaky	**0.393**	0.262	**0.740**	0.053	0.772	0.228	1.821
emo_guilty	0.102	**0.845**	0.224	-0.077	0.781	0.219	1.189
emo_ashamed	0.297	**0.821**	0.198	0.010	0.801	0.199	1.387
emo_blameworthy	0.162	**0.828**	0.235	-0.149	0.789	0.211	1.314
emo_angry_self	0.236	**0.850**	0.206	0.130	0.838	0.162	1.331
emo_disgust_self	0.201	**0.849**	0.244	0.061	0.825	0.175	1.295
emo_angry	**0.760**	0.255	0.288	0.208	0.769	0.231	1.706
emo_hostile	**0.750**	0.156	**0.341**	0.120	0.718	0.282	1.557
emo_irritable	**0.660**	0.233	**0.330**	**0.443**	0.796	0.204	2.605
emo_scornful	**0.720**	0.259	**0.375**	-0.069	0.731	0.269	1.822
emo_disgusted	**0.610**	**0.524**	0.284	0.075	0.733	0.267	2.437
emo_loathing	**0.623**	**0.362**	**0.403**	-0.075	0.687	0.313	2.432
emo_dissatisfied_self	0.235	**0.828**	0.241	0.136	0.817	0.183	1.401
SS loadings	7.62	5.573	4.898	0.595			

Table 8: Factor Loadings with 3 Factors

Variable	RC1	RC2	RC3	h2	u2	com
emo_put_down	**0.811**	0.259	0.230	0.777	0.223	1.374
emo_wronged	**0.864**	0.091	0.201	0.795	0.205	1.131
emo_debased	**0.693**	0.219	**0.353**	0.653	0.347	1.716
emo_bullied	**0.836**	0.072	0.243	0.763	0.237	1.184
emo_powerless	**0.731**	0.273	0.298	0.698	0.302	1.627
emo_scorned	**0.753**	0.272	**0.336**	0.753	0.247	1.674
emo_afraid	**0.349**	0.278	**0.787**	0.819	0.181	1.656
emo_scared	**0.343**	0.299	**0.784**	0.821	0.179	1.690
emo_frightened	**0.404**	0.282	**0.744**	0.796	0.204	1.866
emo_nervous	**0.368**	**0.301**	**0.716**	0.738	0.262	1.888
emo_jittery	**0.384**	0.244	**0.724**	0.732	0.268	1.783
emo_shaky	**0.405**	0.261	**0.734**	0.771	0.229	1.845
emo_guilty	0.102	**0.843**	0.226	0.773	0.227	1.174
emo_ashamed	**0.302**	**0.819**	0.196	0.801	0.199	1.393
emo_blameworthy	0.158	**0.824**	0.238	0.761	0.239	1.244
emo_angry_self	0.249	**0.851**	0.201	0.826	0.174	1.288
emo_disgust_self	0.210	**0.849**	0.240	0.823	0.177	1.290
emo_angry	**0.776**	0.255	0.275	0.743	0.257	1.482
emo_hostile	**0.761**	0.155	**0.331**	0.712	0.288	1.459
emo_irritable	**0.691**	0.238	**0.312**	0.632	0.368	1.656
emo_scornful	**0.720**	0.254	**0.370**	0.719	0.281	1.778
emo_disgusted	**0.618**	**0.523**	0.276	0.732	0.268	2.362
emo_loathing	**0.622**	**0.358**	**0.399**	0.674	0.326	2.373
emo_dissatisfied_self	0.248	**0.829**	0.235	0.804	0.196	1.350
SS loadings	7.772	5.547	4.795			

L Survey Results Subsetting on Respondents Assigned to Write About Either Humiliation or Shame

Figure 23: Treatment Effects

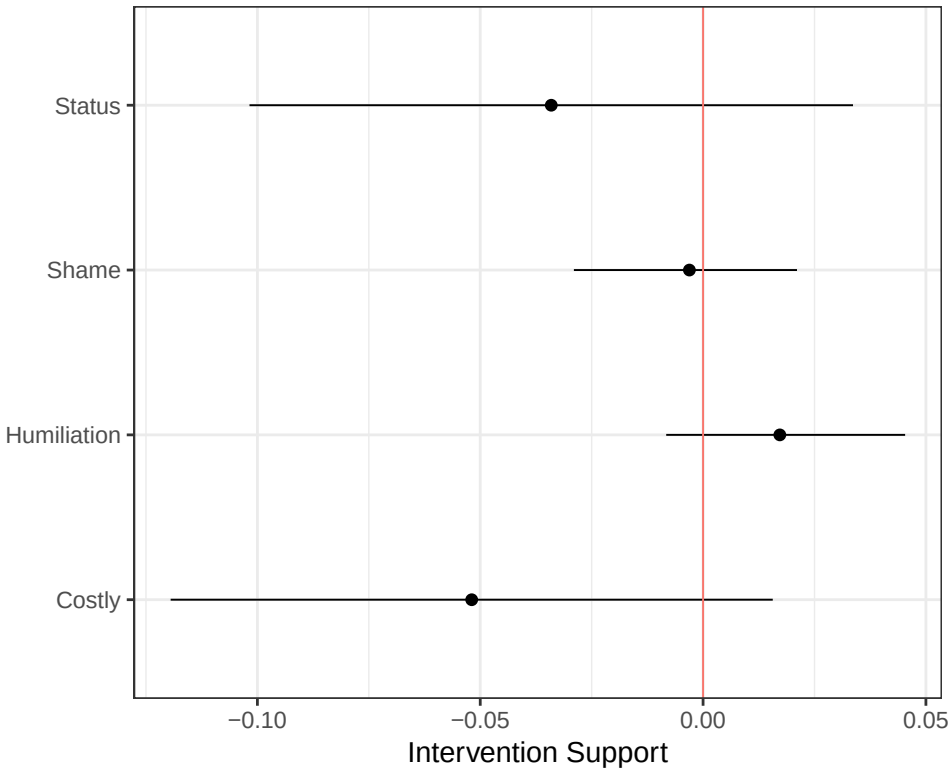


Figure 24: Cost Mechanism

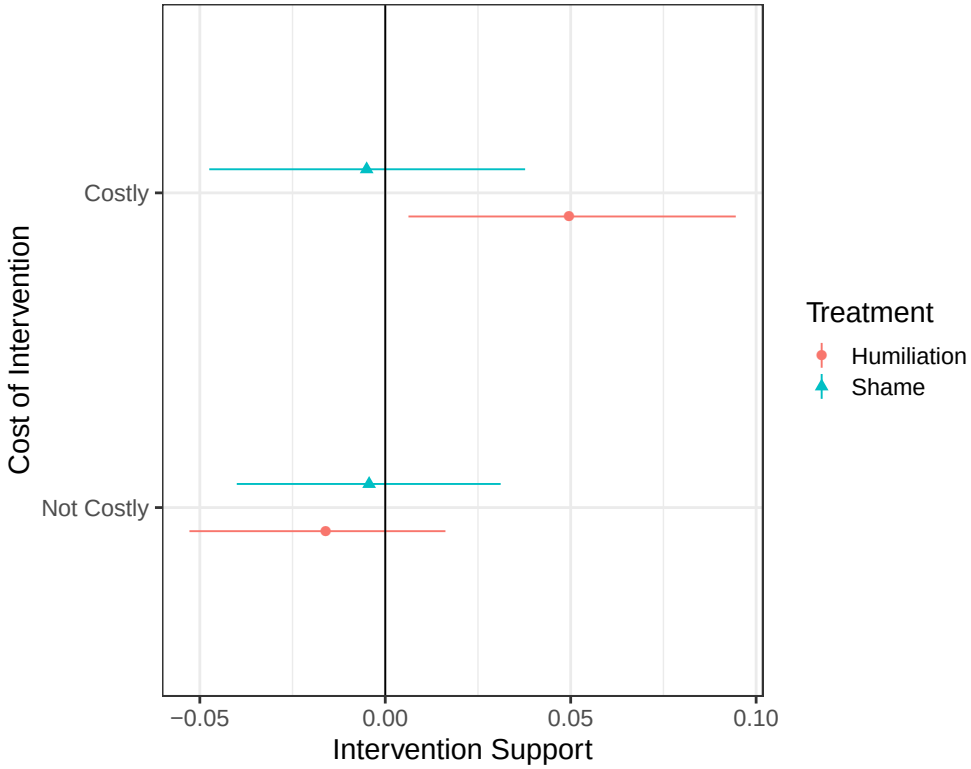
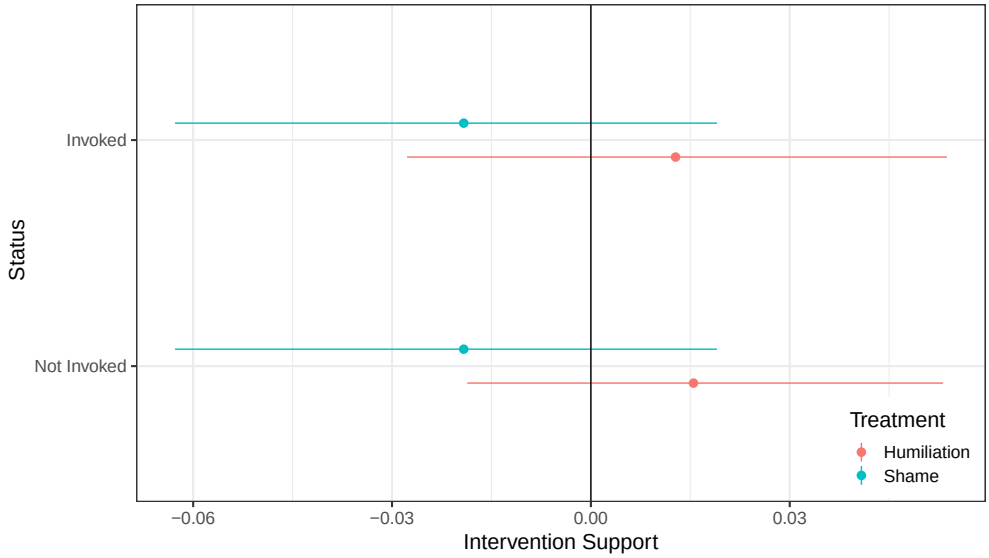


Figure 25: Status Mechanism



M Placebo Tests

These placebo tests conduct the same analysis in section J except on the subset of untreated subjects. If the results are driven by period effects or something other than treatment that

correlates with the time of treatment, then the untreated subjects would also exhibit the effects found in J. They do not.

Figure 26: Within-subject Placebo Test (All Rounds)

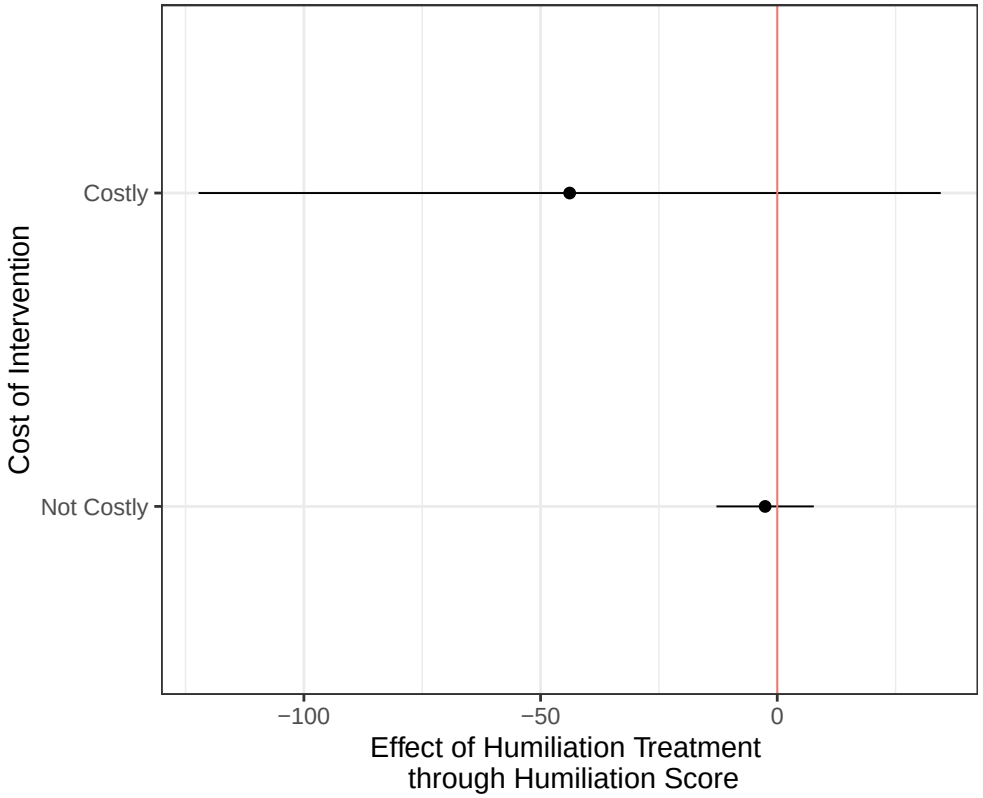
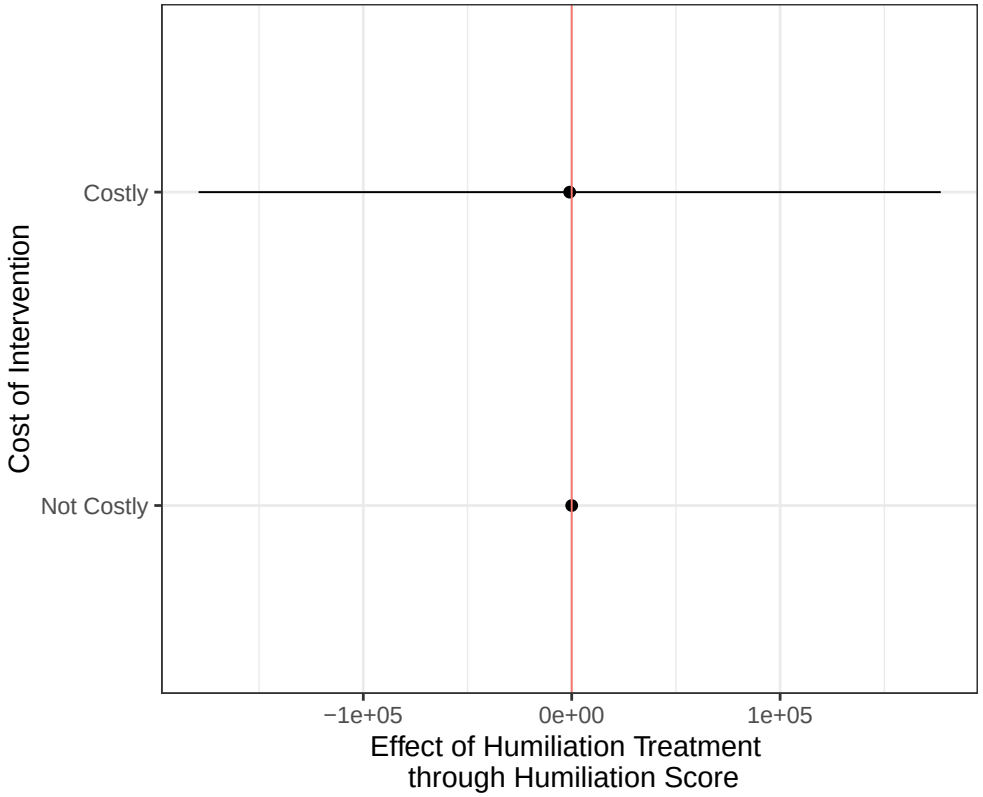


Figure 27: Within-subject Placebo Test (Excluding Last 2 Post-treatment Rounds)



N Sensitivity Analysis

This section shows the sensitivity of the results to violations in the sequential ignorability assumption using the mediation package's medsens function (Tingley et al. 2014).

N.1 Survey Experiment Sensitivity Analysis

The ACME for the humiliation treatment through humiliation reaches 0 at $\rho = 0.07$. Figure 28 shows the values of ACME across different values of ρ.
When examining only respondents told that conflict is costly, the ACME for the humiliation treatment through humiliation reaches 0 at $\rho = 0.13$. Figure 29 shows the values of ACME across different values of ρ for the costly sub-sample.

Figure 28: Humiliation ACME Sensitivity (Full Sample)

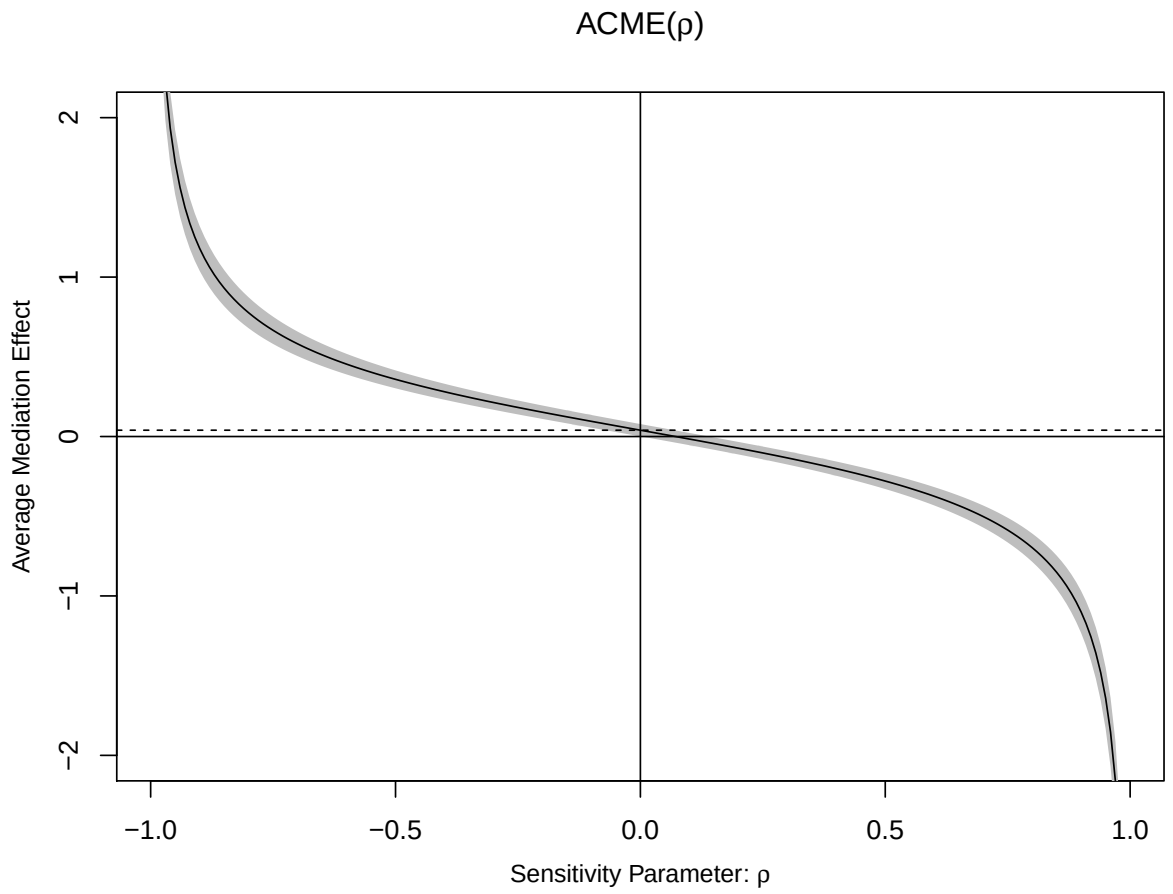
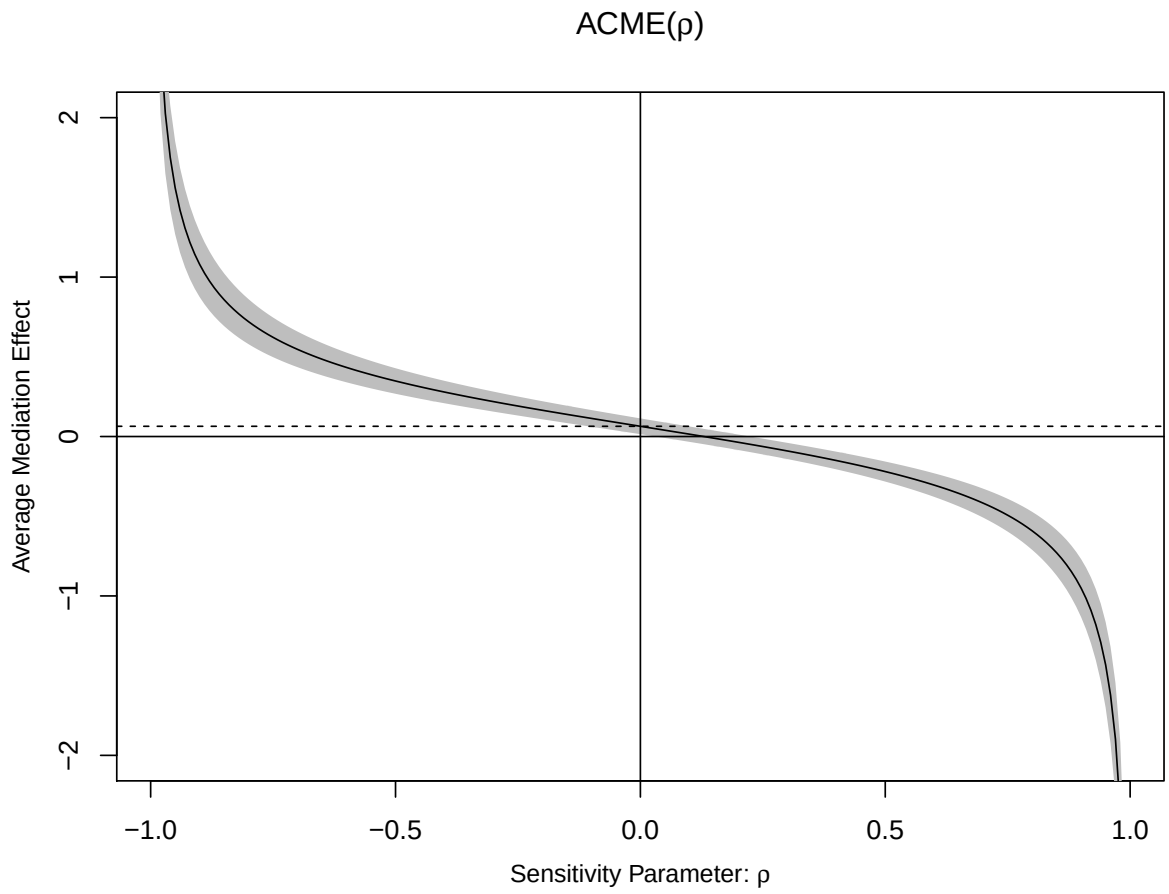


Figure 29: Humiliation ACME Sensitivity (Costly Sub-sample)



N.2 Lab Experiment Sensitivity Analysis

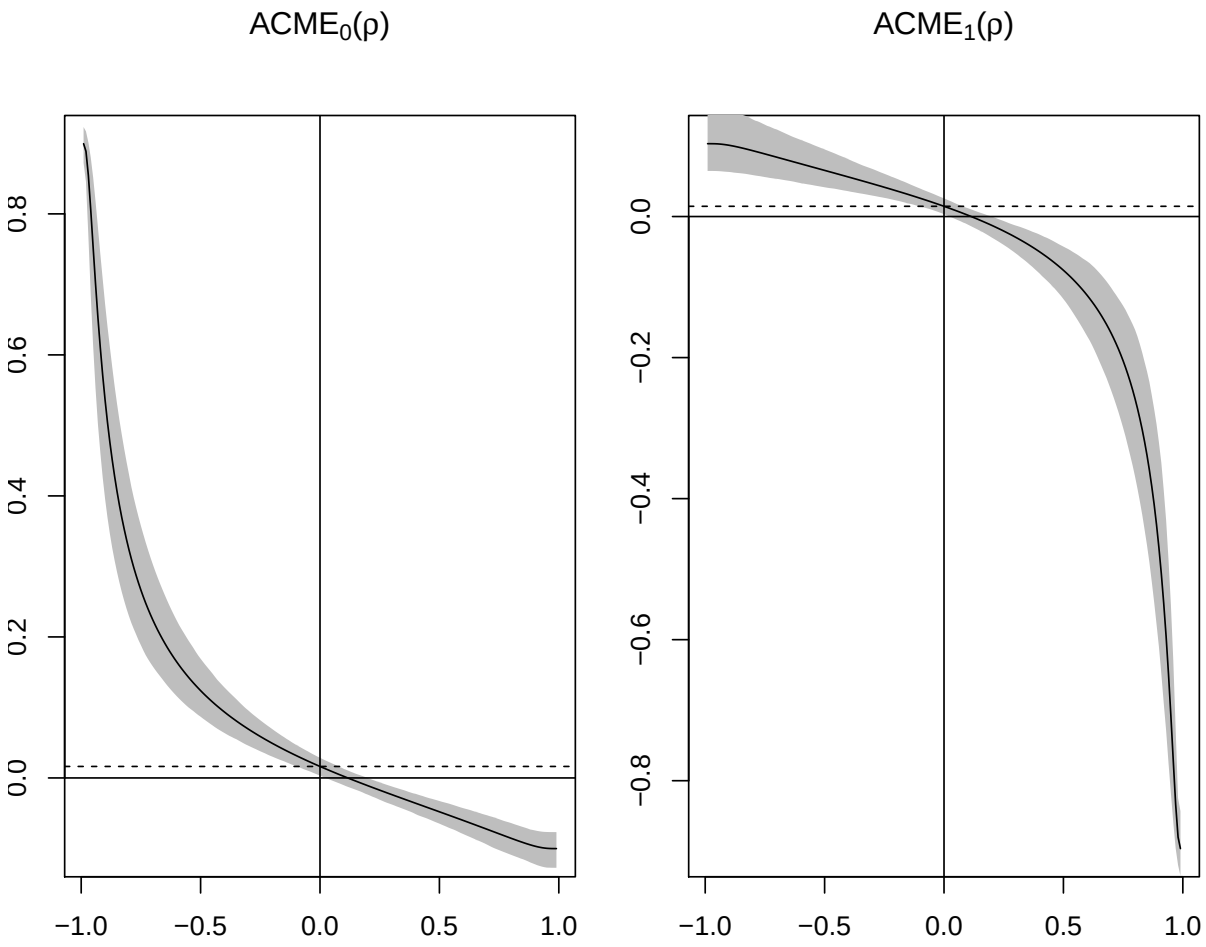
For the lab experiment, only the between subjects analysis uses causal mediation, so I only show sensitivity analysis for the between subjects results from the main text and not the within subjects results from the appendix section J. The ACME is only non-zero for the costly condition, so I only examine under which values of ρ ACME becomes zero for games when conflict is costly. The medsens function is not compatible with logistic regression models, so I rerun the analysis using a probit outcome model instead. For the case of a continuous mediator model and a binary outcome model, the medsens function returns an error if the outcome model includes covariates that are not included in the mediator model.[15] For this reason, I show results using both a probit outcome model without covariates and an OLS outcome model that includes the covariates of first-mover status and round number. The sensitivity analysis for the probit outcome model returns separate results for the ACME on treated ($ACME_1$) and the ACME on untreated ($ACME_0$), so I show both.

N.2.1 Probit Outcome Model

For respondents in the costly condition, the ACME for the humiliation treatment through humiliation reaches 0 at $\rho = 0.11$ for the treatment group and $\rho = 0.12$ for the untreated group. Figure 30 shows the values of ACME across different values of ρ.

[15] Error in Mmodel.coef.sim * (rho12.sim/sigma.2.sim) %x% t(rep(1, y.k - : non-conformable arrays.

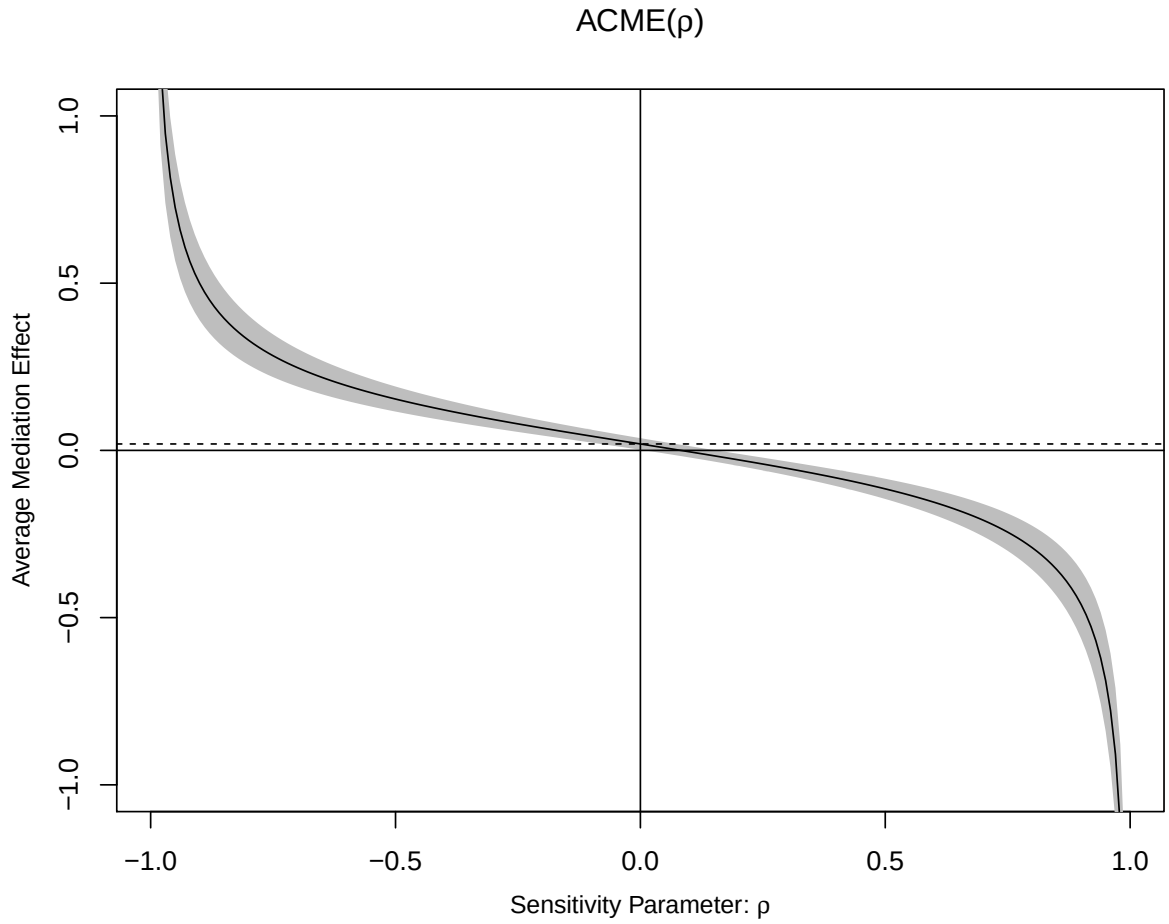
Figure 30: Humiliation ACME Sensitivity (Costly Sub-sample)



N.2.2 OLS Outcome Model

For respondents in the costly condition, the ACME for the humiliation treatment through humiliation reaches 0 at $\rho = 0.08$. Figure 31 shows the values of ACME across different values of ρ.

Figure 31: Humiliation ACME Sensitivity (Costly Sub-sample)



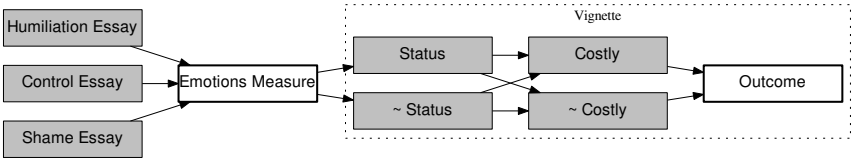
O Survey Experiment Placebo Tests

The experiment includes placebo questions about whether respondents believe that the country being invaded is a democracy as well as whether they think that the invader is committing major human rights violations. These are to ensure that respondents are not inferring more than is intended from the manipulations (Dafoe, Zhang, and Caughey 2017). The placebo tests find neither the cost nor status manipulation inadvertently manipulated respondents' perceptions about the regime type of the country being invaded or whether the invader is committing major human rights violations.[16]

P Survey Design Diagram

[16]The p-values in t-tests are > 0.1.

Figure 32: Survey Experiment Design



Manipulations shaded.

References

Dafoe, Allan, Baobao Zhang, and Devin Caughey (2017). "Information Equivalence in Survey Experiments". *Political Analysis*.

Fernández, Saulo et al. (May 2018). "Understanding the role of the perpetrator in triggering humiliation: The effects of hostility and status". *Journal of Experimental Social Psychology* 76, 1–11.

Frijda, Nico H. (2007). *The laws of emotion*. Mahwah, N.J: Lawrence Erlbaum Associates. 352 pp.

Hartling, Linda M. and Tracy Luchetta (1999). "Humiliation: Assessing the impact of derision, degradation, and debasement". *Journal of Primary Prevention* 19.4, 259–278.

Lerner, Jennifer S et al. (2015). "Emotion and decision making". *Annual review of psychology* 66.

Löwenheim, Oded and Gadi Heimann (Dec. 9, 2008). "Revenge in International Politics". *Security Studies* 17.4, 685–724.

McDermott, Rose (2004). "The feeling of rationality: The meaning of neuroscientific advances for political science". *Perspectives on politics* 2.4, 691–706.

Tingley, Dustin et al. (2014). "Mediation: R package for causal mediation analysis".

Wager, Stefan and Susan Athey (2018). "Estimation and inference of heterogeneous treatment effects using random forests". *Journal of the American Statistical Association* 113.523, 1228–1242.

Wang, Zheng (2012). *Never forget national humiliation: historical memory in Chinese politics and foreign relations*. New York: Columbia University Press. 293 pp.

White II, Mark H. (Oct. 14, 2018). *Explicitly Optimizing on Causal Effects via the Causal Random Forest: A Practical Introduction and Tutorial*.

Yarhi-Milo, Keren (2018). *Who fights for reputation: the psychology of leaders in international conflict*. Vol. 156. Princeton University Press.