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*Washington University in St. Louis*

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WASHINGTON UNIVERSITY IN ST. LOUIS

Department of Psychology

Towards a Greater Understanding of the Antecedents of Dehumanization: A Contempt-  
Dehumanization Framework

by

Fade Rimón Eadeh

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

May 2013

St. Louis, Missouri

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## Acknowledgments

The author wishes to thank JohnPaul Schott and Stephanie Peak, who provided valuable comments, ideas, and friendship with writing this thesis. The author wishes to also thank Alan Lambert for his guidance, patience, and friendship throughout this research manuscript and my time at Washington University. The author wishes to also thank Josh Jackson and Michael Strube for their assistance as committee members on this thesis. Finally, the author would like to thank his parents, Rimón and Layla Eadeh, for their continued support encouragement during my graduate education.

## ABSTRACT OF THE THESIS

Towards a Greater Understanding of the Antecedents of Dehumanization:  
A Contempt-Dehumanization Framework

by

Fade Rimón Eadeh

Master of Arts in Psychology

Washington University in St. Louis, 2013

Professor Alan Lambert, Chair

Although dehumanization has been studied in a variety of conceptual and methodological paradigms, surprisingly little is known about the role of affect as a mediator of the dehumanization process. In this paper we propose and test a contempt-dehumanization model, which stipulates that, the effect of severe norm violations on dehumanization is indirect, as mediated by contempt (**norm violation → contempt → dehumanization**). Across three studies we provide consistent support for this model in the realm of extremely immoral acts committed by drug dealers who intentionally target young children (Experiments 1 and 3) as well as unscrupulous Wall Street businessmen who deliberately scam unsuspecting elderly investors (Experiment 2). We discuss the implications of our model for previous models of dehumanization.

## INTRODUCTION

The process of *dehumanization*—denying a person or group its critical essence of humanity—has been associated with some of the most tragic and truly horrific events in history. For example, many acts of attempted genocide, such as those committed by Nazis against Jews, were predicated on the premise that the targeted group was, literally, less than human. As David Livingstone Smith noted in a recent interview on National Public Radio, “When the Nazis described Jews as *Untermenschen*, or subhuman, they didn't mean it metaphorically...they didn't mean they were like subhumans. They meant they were *literally* subhuman.” (‘Less Than Human’: The Psychology Of Cruelty, 2011).

As a number of scholars have noted, however, the process of dehumanization can also emerge in relatively subtle ways (Leyens et al., 2000; Leyens, et al., 2003; Tam et al., 2007; Cuddy, Rock, & Norton, 2007; Castano & Giner-Sorolla, 2006). For example, take cases in which people seem to ignore a homeless person who is asking for help on the sidewalk. As Darley & Latane (1968) show via the bystander intervention, there are many reasons that we might not render help, including (a) failure to even notice him or her in the first place, or (b) the perception that their plight does not constitute a true emergency. However, the decision to *not* render assistance might, in some cases, be driven by a tendency to objectify that person, in the sense that we treat him or her more as a “thing”, than a person. This does not mean that people literally think of homeless people as subhuman. However, this represents an instance in which we begin to see the person as somewhat-less-than-human, even if we do not literally conclude that they belong to a different species. (For related discussions, see Haslam, 2006.)

## ON THE ROLE OF AFFECT IN THE DEHUMANIZATION PROCESS

One of the key features of dehumanization is a presumed lack of secondary “human” emotions in the group or person that is being dehumanized (Haslam, Kashima, Loughnan, Shi, & Suitner, 2008; see also Leyens et al., 2000). In other words, one important component of the dehumanization process—*denial of full humanity*—may manifest itself in terms of inference that “they do not feel the same emotions we feel.” As a number of scholars have noted, these sorts of inferences may make it easier to inflict harm on the targeted group (Cuddy et al., 2007). For example, just as people might attempt to legitimize the killing of certain creatures (e.g., insects) on the grounds that such creatures do not experience the same kinds of feelings as experienced by humans, a similar justification seems to underlie historical examples of horrific violence against other people on the grounds that they, too, do not experience the same kinds of feelings as do other human beings. Hence, affect clearly plays an important role in these models as an important *consequence* of dehumanization: the inference that certain people do not feel emotions in the same way as the rest of humanity.

### On the Role of Affect as a Mediator of Dehumanization

Affect could play a different role in the dehumanization process, potentially as a mediator. In this case, the focus is not on the kinds of *inferences* that people make about the person or group that is being dehumanized (see above). Rather, the issue at hand is whether affect *as experienced by the perceiver* is driving the dehumanization process. To anticipate the discussion to follow, surprisingly little research has directly examined the formal role of affect as a mediator, and one of the central goals of the present research was to gain more insight into these matters. Unless noted otherwise, our use of the term “affect” along with related terms such as “emotions” or “feelings” are referring the experiential state of the *perceiver*—the party



engaged in the dehumanization process—as opposed to the inferred presence or absence of affect in the targeted group.

It is important to acknowledge at the outset that most (although not all) theorists have indirectly or directly implicated dehumanization as an important precursor to violence and aggression, especially towards outgroups. Moreover, as Haslam (2006) notes, dehumanization often involves extremely negative appraisals of others. Hence, we are certainly not the first to suggest that dehumanization is likely to involve negative feelings towards the targeted group (see also Bar Tal, 2000). Nevertheless, a number of important issues remain unresolved. For one thing, we are not aware of any formal, empirically based attempts to actually test mediational models of affect in a dehumanization paradigm. As a related point, it is quite unclear what kind of affect, exactly, would play this kind of mediational role. Of course, the affect would presumably be negative in tone. However, different types of emotions are associated with different types of goals and behavioral outcomes, even when they share the same valence (Huddy, Feldman, & Cassese, 2007; Lambert et al., 2010; Lerner & Keltner, 2000; Schwarz, 1990). For this reason, it is important to understand what *kind of negative emotion* would play a role in mediating the emergence of dehumanization.

### **CLOSER CONSIDERATION OF THE HARRIS AND FISKE (2006) MODEL**

A recent model proposed by Harris and Fiske (2006) merits additional attention, for at least two reasons. First, more than most other dehumanization models, their model explicitly emphasizes the negative feelings that people may feel when they are dehumanizing others. This is clearly an important point and this underlying assumption is clearly important in our research as well. However, it is one thing to argue that negative affect *accompanies* the process of dehumanization but it is quite another thing to show that such feelings actually *mediate* the

process of dehumanization. Harris and Fiske (2006) clearly make a solid case for the former, but do not present any data that bear on the latter.

In addition to not testing/considering the formal role of mediation, their model is somewhat unclear as to what kind of negative emotion, exactly, would be central to the dehumanization process in the first place. In the introduction of their paper, Harris and Fiske (2006) make a passing reference to the possibility that *contempt* (which reflects a blend of anger and disgust; see Plutchik, 1980; 2001) may be central to the dehumanization process, but their empirical focus is almost exclusively on disgust. In our view, we believe that disgust is indeed central to the dehumanization process. Nevertheless, we believe that anger is critical as well. In other words, dehumanization is likely to be driven not only by disgust, and not only by anger: it is likely to involve *both* emotions.

Identifying disgust *and* anger as key, dual components of dehumanization is more important than it might seem at first. This is because these two types of emotion, although clearly correlated with one another, are clearly distinct and highlight two important aspects of the dehumanization process. On the one hand, *disgust* clearly seems to capture the “debasement” element of dehumanization, that is, that part of our perceptions that leads us to be repelled by others. However, the feeling of disgust, alone, may not be sufficient (in a logical as well as psychological sense) to propel people to commit and/or endorse violence and aggression. That is the job of anger. In other words, in order to more deeply understand the true nature of dehumanization and its potential consequences, it is important to acknowledge the role of anger *and* disgust.

In suggesting that anger and disgust are both important in the context of dehumanization, it is important to be more precise what this means on an analytic level. In particular, we assume

that (a) anger and disgust are likely to be moderately-to-strongly correlated with another, that (b) each of these two types of emotions, taken in isolation, could act as mediators of the dehumanization process, (c) statistically controlling for disgust should eliminate the mediating role of anger, and (d) statistically controlling for anger should eliminate the mediating role of disgust and, finally, (e) other negative emotions, such as anxiety, should play no mediating role at all.

To summarize, we see the blend of anger and disgust as central to the dehumanization process and, to our knowledge, we are the first to formally test whether these emotions play a central role in the dehumanization process. As such, our primary analyses involved a composite measure of negative affect that was based on an average of several items pertaining to anger along with several items pertaining to disgust. In theory, we could have referred to this composite as the “anger/disgust” index but, in accordance with Plutchik’s theoretical model (which explicitly defines contempt as a blending of anger and disgust) we use the *contempt* term here as well. In the auxiliary section of our results section, we report separate analyses on anger and disgust. As noted above, however, the effects of anger disappeared when disgust was controlled for and vice versa, indicating that both components are central to the dehumanization process.

### **Are Inferences of (Low) Warmth and (Low) Competence Central to the Dehumanization Process?**

One additional point of comparison with the Harris and Fiske (2006) model is worth noting. According to the Harris and Fiske (2006) formulation, two important preconditions must be satisfied in order for dehumanization to take place: those being dehumanized must be seen as (a) lacking in warmth and (b) low in competence. This is an extremely important premise of the

Harris and Fiske (2006) model because it stipulates rather stringent boundary conditions for when dehumanization should, and should not, occur.

In our view, the stipulation that dehumanization can only occur when groups (or individuals) are seen as low in warmth and low in competence is too restrictive. This seemed especially likely in the case of competence. In our view, certain kinds of morally offensive acts can trigger dehumanization, even though its members might be seen as rather competent. For example, Americans often tended to see their opponents in World War II (i.e. Nazis and Japanese) in dehumanizing terms, despite the fact that these groups were waging war on the same level of technological sophistication as American troops. Consistent with this point, we provide support for our model in the context of severe moral violations committed by a rather competent group (i.e. Wall Street investors). As for warmth, we agree that perceptions of low warmth (e.g. perceptions that the other group is “cold” and/or is lacking in likeability) can often accompany the process of dehumanization. As we shall show, however, neither warmth nor competence played a central role in mediating the process of dehumanization per se.

### **SUMMARY OF OUR CONTEMPT-DEHUMANIZATION FRAMEWORK**

In this article, we introduce a new model of dehumanization and present three experiments that were designed to test key aspects of that theoretical model. Our model generally builds upon existing theoretical and empirical work related to dehumanization (Bar-Tal, 1989; Harris & Fiske, 2006; Haslam, 2006; Haslam, Bain, Douge, Lee, & Bastian, 2005; Leyens et al., 2001). However, our model is distinct in other ways, and offers several novel, and empirically testable, predictions not offered by previous models.

According to our framework, as summarized in Figure 1, violations of moral conduct (defined broadly) plays an indirect, rather than direct, role in triggering dehumanization. In

particular, such violations are presumed to trigger feelings of contempt and these feelings are postulated, in turn, to lead to dehumanization. Hence, although moral violations are certainly important in the context of our model, contempt is hypothesized to play the most proximal, causal role in driving dehumanization. As a related point, our model explicitly acknowledges that dehumanization may certainly be associated with several different kinds of negative psychological reactions, other than contempt *per se*. For example, violations of moral codes are very likely to trigger a wide range of negative psychological reactions, including the activation of generally negative attitudes, assessed as lacking warmth, along with certain types of negative personality attributions. In the context of our model, however, it is the activation of contempt, and not these other elements, that are presumed to trigger dehumanization.

### **OVERVIEW OF THE PRESENT RESEARCH**

In each of the three experiments presented below, we experimentally manipulated the severity of the moral violation by randomly assigning half of our participants to a severe moral violation and the other half to a moderate moral violation. In two of our studies (Experiments 1 and 3), the experimental manipulation involved varying the severity of the crimes committed by drug dealers, insofar as they were described either as targeting young children (severe violation) or young professionals (moderate violation). In the other study (Experiment 2), the manipulation of moral code violation pertained to whether financial investors were described as deliberately cheating elderly pensioners (severe violation) or affluent couples (moderate violation). In all three studies, we predicted, and found, that (a) priming a severe (vs. moderate) moral violation would be more likely to trigger the activation of contempt, and (b) activation of these feelings of contempt would, in turn, lead to increased evidence of dehumanization processes. In addition, Experiment 3 was designed to provide evidence for the downstream consequences of

dehumanization, namely, how the activation of these processes can have important ramifications for behavior and attitude towards the members of the targeted group (e.g. increased support for use of the death penalty towards the relevant violators).

### **ON OUR OPERATIONALIZATION OF DEHUMANIZATION**

The Oxford English dictionary (2012) defines dehumanization, simply, as the process by which one deprives a person or group of “positive human qualities”, a view which is generally consistent with the way that previous researchers have defined this term. Note, however, that use of Likert-type statements to assess the possible presence of dehumanization (e.g. *To what extent do you think of the member of group X as animalistic?*) runs the risk of a demand effect, in the sense that the use of dehumanizing language in the question, itself, might prompt participants to see the target group in a dehumanizing way, even though they might not have otherwise done so.

For this reason, we were particularly interested in the *spontaneous* emergence of dehumanization, that is, obtaining evidence of dehumanization that would emerge from our participants, in the absence of any explicit or implicit prompts by us. To this end, our primary measure of dehumanization was based on a paradigm in which participants were (a) first asked to read about a target group and then (b) asked to complete a “word generation” exercise, in which participants generate ten words that they think best described the target group. We then coded responses in terms of whether the words generated did, or did not, represent examples of dehumanizing language using a general definition of dehumanization that was consistent with the conceptualization offered in the literature. That is, any given word was coded as dehumanizing if it clearly seemed to imply the absence of positive human qualities.

When we began coding the words generated by participants, we quickly realized that the construct of *dehumanization* is a fuzzy set (Zadeh, 1965). That is, like most other categories (cf.

Smith & Medin, 1981), dehumanization is a not classically defined category with concrete boundaries clearly delineating between what lies within vs. outside that category. This means, on the one hand, that we were readily able to identify very clear examples of the construct (e.g. *vermin*, *garbage*, *trash*, *scum*). These are clear examples of dehumanization because these are (a) words that clearly refer to non-human entities (i.e. inanimate objects, or non-human species) that (b) clearly implies that the group/person lacks positive human qualities (or, indeed, a sense of humanness at all).

However, we also came across other examples for which reasonable people could disagree as to whether they truly represented examples of dehumanizing language or not. For example, consider the word *immoral*. This term may not necessarily fit the strict sense of dehumanizing language because the phrase “immoral person” does not literally mean that the individual does not have any morals at all, but rather, has a set of beliefs that are inconsistent with what we would normally consider to be fair and just. It is important to emphasize that the inability to make a clear delineation between words that are and are not dehumanizing does *not* imply that the category somehow lacks meaning. For example, the construct of *game* does not have clear boundaries, even though this concept is clearly meaningful to most people (cf. Zadeh, 1965). In the same sense, these considerations do not imply that the dehumanization concept lacks meaning or that it cannot be studied in a rigorous way. Rather, it simply means that any given coding system would need to acknowledge the inherent fuzziness of the underlying construct.

### ***Overview of Our Analytic Strategy***

In light of these considerations, therefore, it seemed best to use an analytic strategy that explicitly acknowledged the somewhat arbitrary “outer boundaries” of the dehumanization

construct. In each of the experiments to follow, therefore, we coded the word generation task twice, using two different sets of criteria. In one coding system, we used what we refer to as the “strict criterion,” coding words as examples of dehumanization only if it was very clear to all three co-authors that these descriptors met the strict sense of dehumanization. On the left side of Appendix A, we list all words that were generated at least once in the context of the three experiments, and which we considered to meet this criterion<sup>1</sup>.

We then went through the data again using what we call the “broad criterion,” categorizing words as “dehumanizing” if they seemed to capture some essence of dehumanization, albeit in a general sense. (More precisely, words were designated as belonging to the broad classification scheme if they engendered some degree of debate amongst at least one of the co-authors). On the right side of Appendix A, we list words that were generated at least once in the context of our three experiments and which we classified as belonging to the dehumanizing category, under the broad criterion. (Of course, the broad criterion included the words that were classified as examples of dehumanization using the strict criterion.)

As it turns out, we found a very similar pattern of results, regardless of whether we used the strict or broad criterion. In our view, this represents a notable strength of our research paradigm, insofar as this suggests that our findings are *not* an artifact of any single, and possibly idiosyncratic, coding system. In order to show the generalizability of our findings across these two operationalizations of our central construct, therefore, we report two sets of analyses, one using the strict criterion, and the other using the broad criterion.

## **EXPERIMENT 1**

The goal of the first experiment was to provide an initial test of our contempt-dehumanization framework. To this end, we randomly assigned participants to one of two



conditions, one of which exposed them to an extreme moral violation, and one of which did not. In the *extreme moral violation condition*, participants read about a group of drug dealers who, in order to increase their profits, had begun to target unsuspecting young children by packaging dangerous drugs in the form of candy and cartoon characters. In other words, these dealers were not just selling illegal drugs to adults who wanted to get high, they were intentionally getting children “hooked” on drugs by enticing them to buy what appeared to be merely candy. In accordance with our model, we predicted, and found, that this sort of behavior triggered strong feelings of contempt as well as the spontaneous emergence of dehumanizing language when participants were asked to describe the group.

As in most types of designs, our study needed a control group to serve as a basis of comparison to the experimental condition. In our case, however, our design was constrained by two considerations. First, recall that a primary dependent variable in our research was the “word generation” task, which allowed us to code for the spontaneous emergence of dehumanizing language in the context of an extreme moral violation. Hence, it was necessary for the control group, to engage in an analogous task such that they, too, would be asked to spontaneously generate words that they considered to be a descriptive of a particular target group.

A second consideration is that it was important to show that the dehumanizing process would begin to emerge in the presence of *truly extreme* moral violations, and not simply dislikeable behavior. For this reason, and to maximize our basis of comparison with the experimental condition, participants in the control group were asked to read a very similar story about drug dealers, except that the story was slightly altered such that the dealers were described as targeting young adults with so-called “designer drugs.”

Hence, although the two versions of the description were very similar (and both described a generally dislikeable group), one version contained an extreme moral violation and the other did not. It should be acknowledged, however, that there was some degree of moral violation even in the control condition, as the drug dealers in that condition were also engaged in illegal activity. Hence, for the sake of simplicity, and in recognition that moral violations were present in both cases, we refer to the experimental and control group with the labels extreme violation vs. moderate violation, respectively.

## **Method**

### ***Participants***

A total of 106 American participants (48 Male, 54 Female, gender was not reported for four participants) were drawn from Amazon Mechanical Turk to participate in a study on social and political attitudes. Participants were compensated 30 cents for participation<sup>2</sup>.

### ***Materials and Procedure***

Participants were randomly assigned to read one of two versions of a 300-word newspaper article about drug trafficking geared toward certain target populations. This newspaper article involved the illegal shipment of drugs from both Canada and Mexico and how these drugs were targeted to particular segments of the population. The newspaper article also spoke of the proliferation of these drugs around the United States, provided expert opinion on the matter, and presented a dire view of the state of the drug war in the United States. The primary difference concerned the groups (i.e., children or young adults) the drug dealers targeted.

Participants in the *moderate* moral violation condition read a story where drug dealers targeted young professionals across the United States, with the dealers marketing their product towards young professionals, with marijuana-infused organic food and ecstasy pills shaped like

Hollywood celebrities. Participants in the *extreme* moral violation condition read a story where the target group was young children, with the product being the pills resembling cartoon characters, like Dora the Explorer. Participants were given unlimited time to read the assigned article. As seen in Appendix B (which provides the full description of each version of the article), the two passages were very similar, differing only in the group that was being targeted by the drug dealers (young professionals vs. children).

### ***Word Generation Task***

After reading the assigned article, all participants completed a word generation task, in which they were asked to generate ten words to describe the drug dealers from the story. The primary purpose of this task was to code for the spontaneous generation of dehumanizing terms (see below for coding procedure). Participants were specifically asked, *“If you have ten words to describe the drug dealers you had just read about, what ten words come to mind?”*

Participants were given unlimited time to come up with these ten words and inputted these words into ten blank boxes on the survey page under the prompt above.

### ***Coding of Word Generation Task***

As one might imagine given the kind of target group under consideration here, the majority of participants’ descriptors were negative. Indeed, on the average, the proportion of negative (as opposed to positive) words, out of the ten generated by each participant, was 75 %. In this midst of this (obvious) negativity, however, our primary interest was in the spontaneous emergence of dehumanizing language. As we noted earlier, we coded for dehumanizing words using a strict as well as broad, criterion (see Appendix A). More concretely, we constructed, for each participant, a value on the strict criterion index, which represented the proportion of words (out of 10) that were deemed to represent clear-cut cases of dehumanizing language. For

example, if one of our participants had a value of .20 on the strict criterion index, this meant that two of the words generated by that participant met the strict criterion of dehumanization.

We then went through the results of the word generation task again, constructing a looser index of dehumanization, which now allowed for a word to be coded as dehumanizing, using a broader criterion (see right side of Appendix A). (We operationalized words as belonging to the broad criterion if these engendered disagreement among one or more of the co-authors as to whether the term “really” represented dehumanization or not.) For example, if one of our participants had a value of .30 on the broad criterion index, this meant that three of their words appeared either on the strict or the broad criterion.

### ***Assessment of Emotion***

Immediately after the word generation task, all participants were asked to “consider what sorts of feelings you might be feeling right now, after having read the article.” Participants then completed a series of 44 items, presented in a different randomized order for each participant: *interested, bored, edgy, happy, alert, irritated, satisfied, mad, upset, tense, sad, pleased, relaxed, unhappy, angry, determined, irate, dejected, anxious, comfortable, jittery, nervous, worried, confident, calm, disgusted, furious, outraged, infuriated, offended, riled up, incensed, fuming, uneasy, fearful, distressed, terrified, startled, repulsed, hostile, revulsion, hateful, scornful, and disdain*. For each item, participants were asked to select any number between 1 (*not at all*) and 6 (*very much so*) that best represented how they felt toward the drug dealers in the story. On *a priori* grounds, our primary interest was in forming a composite measure of contempt, which was based on the average of *angry, furious, outraged, disgusted, and repulsed*, ( $\alpha = .96$ ). However, given the threatening nature of the group in question, we also formed an index of anxiety on the basis of an average of *nervous, anxious, fearful, and terrified*, ( $\alpha = .92$ ).

### ***Trait Ratings***

After completing the emotion measure detailed above, participants were asked to rate the target group with respect to a randomized series of trait terms, including *warm, cold, likeable, friendly, sincere, pleasant, unpleasant, skilled, unskilled, competent, and incompetent*. For each of these terms, participants were asked to select any number between 0 (*not at all*) and 100 (*very much so*). Although these trait ratings were generally expected to be informative, we were particularly interested in using these ratings in order to form composite measures of warmth and competence, two constructs that play a central role in the Harris and Fiske (2006) formulation. Hence, we formed a seven-item composite measure of warmth based on an average of *warm, cold, likeable, friendly, sincere, pleasant, unpleasant*, after reverse coding the negative items ( $\alpha = .88$ ). We also formed a four-item measure of competence (*skilled, unskilled, competent, and incompetent*), again after reverse coding as needed ( $\alpha = .90$ ).

## **Results**

### ***Affective Responses***

One of the major predictions of our model is that the moral violation manipulation should have a strong effect on contempt, with significantly higher levels of this emotion if the level of moral violation was extremely high than if it was not. This was in fact the case, as contempt was significantly higher in the extreme compared to the moderate moral violation condition ( $M_s = 4.51$  vs.  $3.16$ ),  $F(1, 104) = 18.59$ ,  $p < .001$ ,  $\eta^2 = .15$ . Participants in the severe condition also expressed higher levels of anxiety in the severe compared to the moderate condition ( $M_s = 2.85$  vs.  $2.12$ ),  $F(1, 104) = 7.32$ ,  $p = .008$ ,  $\eta^2 = .07$ . Hence, compared to participants assigned to the moderate moral violation condition, participants felt higher levels of contempt, as well as anxiety. As seen by the differences in effect size, however, the magnitude of the contempt effect

was substantially larger than that seen with anxiety, as we show ahead, the effects of anxiety disappeared once contempt was controlled for.

### ***Spontaneous Emergence of Dehumanizing Language***

As noted above, our participants almost always described the target group in negative ways. However, our interest here was in the extent to which we would see the spontaneous (i.e. unprompted) emergence of dehumanizing language as a function of experimental condition. As predicted, dehumanizing language was more likely to emerge spontaneously from our participants if the moral violation was extreme than if it was moderate. Moreover, this was true regardless of whether we used the “strict” or “broad” criterion when constructing our dehumanization index. Using the broad criterion, participants in the severe condition generated a greater proportion of dehumanizing words ( $M = .20$ ) compared to participants in the moderate violation condition ( $M = .12$ ),  $F(1, 104) = 9.26$ ,  $p < .01$ ,  $\eta^2 = .08$ . A similar pattern was found using the strict criterion ( $M_s = .08$  vs.  $.04$ ),  $F(1, 104) = 4.19$ ,  $p < .05$ ,  $\eta^2 = .04$ .

### ***Perceptions of Warmth and Competence by Condition***

Participants in the severe violation condition inferred that the drug dealers were less warm than those participants randomly assigned to the moderate condition ( $M_s = 19.86$  vs.  $30.76$ ),  $F(1, 100) = 9.14$ ,  $p < .01$ ,  $\eta^2 = .08$ . Furthermore, participants in the severe condition rated the drug dealers as less competent, in comparison to those participants from the moderate condition ( $M = 57.47$  vs.  $74.99$ ),  $F(1, 104) = 15.61$ ,  $p < .001$ ,  $\eta^2 = .13$ .

### ***Correlational analyses***

Before we present our formal mediational analyses, it is useful to present an initial set of analyses showing the relation among and between our main variables. We do so in Table 1. The first row of this table, which conveys the point biserial correlation between the experimental

condition and the other variables, simply confirms the implications of the AVOVAs, reported above. Of greater interest, this table also shows that the strongest predictor of dehumanization (regardless of whether the strict or broad criterion was used) was contempt ( $r_s = .46$  and  $.49$ , respectively, both  $p_s < .001$ ) and that the magnitude of this relation was substantially greater than any of the other potential predictors, including the experimental manipulation, anxiety, warmth, or competence. The central role of contempt was more formally confirmed in the mediational analyses, presented below.

### **Mediational Analysis**

The results of the correlational matrix presented in Table 1 suggest the possibility of mediation. We predicted that contempt would play the major mediational role, with the other variables playing much less (or even no) role once contempt was controlled for. These considerations were tested more formally using the PROCESS macro as proposed by Hayes (2012). In our analyses, (a) condition was treated as the independent variable, (b) contempt, warmth, and competence were treated as the three potential mediating variables with (c) the dehumanization index treated as the dependent measure.<sup>3</sup>

Initial analyses revealed no significant effects of anxiety after controlling for contempt. Indeed, although the overall pattern of our results were almost identical regardless of whether anxiety was included or not in the model, the effects observed with contempt were, if anything, slightly stronger after controlling for anxiety. Hence, in the analyses to be reported below, we controlled for feelings of anxiety. However, because of the theoretical importance of warmth and competence to the Harris and Fiske (2006) framework these two factors, along with contempt, were included in the main analyses.

We conducted this analysis twice, once using the broad criterion, and again using the strict criterion. In both cases, these analyses revealed a significant mediation effect involving contempt. Hence, for the sake of avoiding redundancy, we present the results of our analyses for the broad criterion only. The result of this analysis is shown in Figure 2. As suggested by this figure, contempt emerged as a significant mediator of the relationship between the experimental manipulation and dehumanization,  $b = .35$ ,  $SE = .14$ ,  $p < .05$  (bias corrected interval: .12--.68). In contrast, although attributions of warmth and competence were clearly affected by the experimental manipulation, these latter two factors did not play any role in terms of actually mediating the emergence of dehumanization.

### ***Supplemental Analysis***

In our model, we conceptualized and measured contempt as a meaningful emotion in its own right, involving a blending of anger and disgust. Although this approach is fully consistent with the way that other theorists have conceptualized this emotion, it does raise the question of whether our effects were mostly due to the effects of anger or mostly due to disgust.

Supplemental analyses using separate indices of anger (based on an average of *angry*, *furious*, and *outraged*) revealed, on the one hand, a general pattern of mediation that was similar than the results of the analyses as shown in Figure 2,  $b = .42$ ,  $SE = .16$ ,  $p < .05$  (bias corrected interval: .15--.79). However, any effects involving anger disappeared once disgust was controlled for,  $b = .06$ ,  $SE = .07$ ,  $p > .05$  (bias corrected interval: -0.02—0.27). In addition, the reverse was also true. Taken on its own, a separate index of disgust (based on the average of *repulsed* and *disgusted*) revealed a general pattern of mediation similar to that of our primary analyses,  $b = .37$ ,  $SE = .14$ ,  $p < .05$  (bias corrected interval: .13--.70). However, the effects of disgust disappeared once anger was controlled for.  $b = .01$ ,  $SE = .03$ ,  $p > .05$  (bias corrected interval: -



0.03--0.14). We also substituted the strict dehumanization index instead of the broad index, to confirm that our effects were consistent, regardless of the dehumanization index used. Our additional analyses indicated the same patterns mentioned above. In separate analyses, the indirect effects of anger and disgust were statistically significant ( $p < .05$ ). However, after controlling for the other emotion, these indirect effects disappeared ( $p > .05$ ).

We performed the same analytic approach over the next two experiments to see if anger or, alternatively, disgust, were driving our effects. Similar to the supplementary analyses highlighted above, each emotion on its own was able to produce a general pattern of mediation for both of our dehumanization indices. However, these patterns disappeared after statistically controlling for the other emotional index.

## **Discussion**

The results of Experiment 1 consistently supported our contempt-dehumanization framework in a number of ways. First, and perhaps most important, we showed that contempt emerged as a strong mediator, insofar as the impact of the moral violation manipulation was indirect. In other words, this manipulation did not have a direct effect on dehumanization; rather, this was channeled through the affective experience of contempt. Moreover, after controlling for contempt, inferences of low warmth, and low levels of competence, played no significant role in driving dehumanization.

It is important to emphasize that our operationalization of dehumanization focused on the *spontaneous* emergence of dehumanizing language. That is, we allowed participants free reign to describe the target group in any way they wished, and we examined the extent to which participants generated, without any prompting by us, examples of dehumanizing language. In other words, aside from the fact that participants almost always generated negative descriptors in

the word generation task, we were interested in the extent to which truly dehumanizing language began to creep into their descriptions.

As the observant reader may have already noted, the average proportion of dehumanizing language was relatively low. In our view, this represents a telling feature of dehumanization. In particular, even in the context of an anonymous survey, our participants seemed to be telling us, in essence, that truly dehumanizing language goes well beyond mere negativity. It is true, of course, that dehumanizing language is negative and, as we have noted, there may not be a strict boundary between what is dehumanizing and what is not. At the same time, our data show that people do not use such terms lightly, as they seem to reserve these terms for the most egregious violations of moral standards. In our view, this highlights an important feature of dehumanizing language, the fact that it appears to be reserved for the most truly horrific actions of others, and even then people seem to use such terms sparingly. This, in our view, highlights the possibly unique power and “punch” of dehumanizing language. People do not often use such terms, but when they do, it serves as a marker of truly unacceptable actions of others.

In the context of our model, the central mediator of contempt represents a blending of anger and disgust. Our operationalization of contempt is similar to that of previous theorists (Plutchik, 1980) but it does raise the possibility that the mediational effect of contempt was actually due to the activation of disgust, rather than anger. Or, one could also make the argument that our results reflected the role of anger, as opposed to disgust. As noted in our supplemental analyses, however, neither of these alternatives was supported. Our supplemental analyses found separate (albeit weaker) indirect effects for analyses that included either anger or disgust related items into our multiple mediation model (These models included the same composite measures of warmth and competence, as discussed previously.) However, upon controlling for the other

emotion (e.g., including anger as a mediator and controlling for disgust), neither emotional measure was found to statistically influence the utilization of dehumanizing language, all  $p$ 's > .25.

## **EXPERIMENT 2**

The overall goal of Experiment 2 was to replicate and extend the findings obtained in Experiment 1 with a completely different target group. In particular, although we again manipulated the severity of the moral violation, this was done in the context of unscrupulous Wall Street investors who were, or were not, described as intentionally preying on unsuspected elderly people in order to bilk them out of their retirement funds. As in the case of Experiment 1, we tested a mediational model such that this manipulation was predicted to trigger strong levels of contempt and that such emotion would, in turn, be predictive of the emergence of dehumanizing language.

Our desire to focus on a different group was primarily driven by the need to show that our previous results were not due to some idiosyncratic property associated with drug dealers and, hence, an important goal of Experiment 2 was to demonstrate the generalizability of our theoretical model. In focusing on Wall Street investors, we also wished to provide further evidence that dehumanization can be applied towards highly competent (i.e. skilled) people. In other words, Wall Street investors may be many things, but they are not incompetent. Indeed, it is the very fact that people might *use* their finely honed skills in order to achieve nefarious aims (e.g. bilking senior citizens) that can drive the emergence of dehumanization in the first place.<sup>4</sup>

## **Method**

### ***Participants***

A total of 101 participants (47 Male, 48 Female, gender was not reported for six participants) from Amazon Mechanical Turk participated in our study for 50 cents.

### ***Experimental Manipulation.***

Participants were randomly assigned and given unlimited time to read one of two 300-word newspaper articles about dishonest Wall Street investors. For participants in the extreme moral violation condition, the target article described a group of investors who intentionally target senior citizens for the sake of making a profit. Participants in the moderate moral violation condition were given a very similar description, except that the group being targeted was described as wealthy/affluent couples. The complete description of these two versions is provided in Appendix C.

### ***Word Generation Task***

After reading the randomly assigned article presented to them, all participants completed the same word generation task as used in our previous experiments. Similar to our previous experiments, we created both the broad and strict versions of the dehumanization indices.

### ***Assessment of Emotion***

Immediately after providing their open-ended response to the article, participants were presented with the same affective task from Experiment 1. As in our first study, we formed two separate emotional composites, including an index of (a) contempt (*angry, furious, outraged, repulsed, disgusted*) ( $\alpha = .92$ ) as well as (b) anxiety (*nervous, anxious, fearful, and terrified*),  $\alpha = .85$ ).

## Results

Initial analyses revealed a general pattern that was similar to that of Experiment 1. In particular, participants assigned to the extreme moral violation condition expressed higher levels of contempt compared to those assigned to the moderate moral violation condition,  $M_s = 4.96$  vs.  $4.19$ ,  $F(1, 99) = 9.66$ ,  $p = .002$ ,  $\eta^2 = .09$ . Further analyses revealed a marginal effect of anxiety,  $M_s = 2.78$  vs.  $2.31$ ),  $F(1, 99) = 3.73$ ,  $p = .06$ ,  $\eta^2 = .04$ , but this effect disappeared after controlling for contempt. Finally, as in Experiment 1, we generally found more evidence of dehumanizing language in the extreme (vs. moderate) moral violation condition, and this was true regardless of whether we used the broad criterion, ( $M_s = .18$  vs.  $.11$ ),  $F(1, 99) = 6.08$ ,  $p = .015$ ,  $\eta^2 = .06$ , or the strict criterion, ( $M_s = .09$  vs.  $.05$ ),  $F(1, 99) = 5.97$ ,  $p = .016$ ,  $\eta^2 = .06$ .

### *Mediational Analysis*

To examine the possibility of mediation, we again used Hayes' (2012) PROCESS macro, with condition as the independent variable, contempt as the mediating variable, and our dependent variable as the dehumanization index. These analyses once again yielded a very similar pattern of results regardless of which dehumanization was used and hence in Figure 3 we present the results from the broad criterion only. As seen here, our results strongly replicate and extend the findings obtained in Experiment 1, showing a significant mediational effect of contempt,  $b = .24$ ,  $SE = .13$ ,  $p < .05$ , bias corrected interval:  $.05--.59$ .

## Discussion

Experiment 2 provides further evidence for our moral violation postulate, such that higher levels of contempt, as a result of our experimental manipulation, lead to increased dehumanization, regardless of whether a strict or broad criterion of dehumanization was used.

These results provide a conceptual replication of Experiment 1 with a different group (Wall Street investors), providing evidence for the stability and generalizability of our findings.

### **EXPERIMENT 3**

Across the two studies reported thus far, we have provided consistent support for the proposed mediational process (**moral violation → contempt → dehumanization**). Although we view such findings as important in their own right, their importance would be heightened still further if we could show that this process has other tangible ramifications, including people's intentions to engage in specific behaviors. In other words, we wished to examine the possible “downstream” consequences of the contempt-dehumanization process, with a particular interest in how these mechanisms might be relevant to people's intentions to punish the perceived wrong doing. To this end, we employed a set of procedures and materials that were generally similar to that of Experiment 1, except that we added a battery of behavioral intention items after our assessment of emotion, to assess participants' intentions to inflict tangible punishment on the drug dealers in question. These items were meant to assess a range of punitive actions toward the drug dealers described in the story, ranging from the number of years the moral violators should be imprisoned for, support for the death penalty if it were “on the table,” and whether one would personally engage in punishment if one saw these crimes being committed.

### **Method**

#### ***Participants***

A total of 125 participants (56 Male, 66 Female, gender not reported for three participants) from Amazon Mechanical Turk participated in our study for 50 cents.

## ***Materials and Procedure***

The manipulation of moral violation (moderate vs. severe) was the same as that used in Experiment 1. As in our earlier study, participants completed the word generation task immediately after reading the assigned passage. All participants then completed the same affective items from the previous experiments. To assess contempt and anxiety-related emotions, we formed two indices, an index for contempt (*angry, furious, outraged, repulsed, disgusted*) ( $\alpha = .95$ ), and anxiety (*nervous, anxious, fearful, worried*) ( $\alpha = .88$ )

### ***Punishment Index***

Immediately after the mood inventory, participants answered several questions indicating their desire to punish the drug dealers mentioned in the story. There were four questions in total. The first question probed participants' intentions in terms of the length of a prison term, if they had the opportunity to make this determination on their own "*If these drug dealers are guilty of crimes for which they have been charged, how long do you believe their sentence should be, in years?*" Immediately following this question, participants were provided with a box and were given the opportunity to write any number that best represented the number of years that they would recommend.

The remaining three questions consisted of items to which participants were asked to express their relative agreement or disagreement: One of these items pertained to a global desire for justice, "*These drug dealers deserve to be severely punished for the harm they've done to society,*" with a second item asking participants to simulate what sort of decision that they would make as a member of the jury, *Suppose that you were on the jury for one of the drug dealers in the story, and that this person was found guilty, "If so, and if the death penalty were an option, how likely is it that would you advocate for the death penalty?"* The third item asked participants

whether they, themselves, would initiate acts of aggression towards the members of this group: *If you saw drug dealers committing the acts mentioned in the story, to what extent would you personally consider committing violence towards them?* For each of these three items, participants were asked to indicate their opinion towards the statement by selecting any number between 0 and 100, with higher numbers indicating greater agreement/endorsement of the item in question.

Although these four items were asking conceptually distinct questions, initial analyses revealed that response on all four items were highly correlated with one another (all  $r_s > .30$ ,  $p_s < .001$ ). In light of this overlap, we formed an overall composite of intended punishment on the basis of an average of all four items. (Prior to forming this composite, we first performed a log transformation on the “years in prison” item to reduce positive skew, and we then converted all four items to z scores.) Higher and lower numbers on this index ( $\alpha = .81$ ) thus indicate a relatively high vs. low desire for punishment, respectively.

## Results

Initial analyses generally revealed the same pattern observed in Experiments 1 and 2. In particular, participants assigned to the extreme moral violation condition expressed higher levels of contempt compared to those assigned to the moderate moral violation condition, ( $M_s = 4.34$  vs.  $3.10$ ),  $F(1, 123) = 19.13$ ,  $p < .001$ ,  $\eta^2 = .14$ . Further analyses revealed an effect of anxiety, ( $M_s = 3.02$  vs.  $2.38$ ),  $F(1, 123) = 6.62$ ,  $p = .01$ ,  $\eta^2 = .05$ , but this effect disappeared after controlling for contempt. We also found more evidence of dehumanizing language in the extreme (vs. moderate) moral violation condition, and this was true regardless of whether we used the broad criterion, ( $M_s = .20$  vs.  $.14$ ),  $F(1, 123) = 5.11$ ,  $p = .03$ ,  $\eta^2 = .04$ , or the strict criterion, ( $M_s = .10$  vs.  $.05$ ),  $F(1, 123) = 3.78$ ,  $p = .05$ ,  $\eta^2 = .03$ . Additional analyses also



revealed greater intentions for punishment in the severe compared to the moderate moral violation condition, ( $M_s = 0.22$  vs.  $-0.24$ ),  $F(1,123) = 11.11$ ,  $p = .001$ ,  $\eta^2 = .08$ .

### ***Mediational Analyses I: Dehumanization as Criterion***

To show the parallelism with Experiments 1 and 2, it is useful at the outset to show support for our model with respect to the predicted relationships involving the experimental manipulation, feelings of contempt, and the two dehumanization indices. (In these analyses, we temporarily omitted the punishment index from consideration.) The results of these analyses, which were again generated by Hayes' (2012) PROCESS macro, are shown in Figure 4 for the broad criterion of the dehumanization index. (As in our two previous studies, a very similar pattern of results was obtained with the strict criterion.) As seen in Figure 4, our findings nicely converge on the implications of our two earlier studies, showing a significant mediational effect of contempt,  $b = .27$ ,  $SE = .12$ ,  $p < .05$  (bias corrected interval:  $.09--.62$ ).

### ***Mediational Analyses II: Punishment Index as Criterion***

In these analyses, punishment (rather than dehumanization) was now treated as the criterion variable. As such, these analyses were conducted in order to determine whether contempt, as well as dehumanization, served to mediate the effect of the experimental manipulation on punishment. The result of this analysis is displayed in Figure 5. Once again, a generally similar pattern of results was found regardless of whether the broad or strict criterion was used and hence we report the analyses for the broad criterion only.

Formal tests of mediation revealed two significant effects. First, contempt served as a mediator in its own right,  $b = .19$ ,  $SE = .07$ ,  $p < .05$ , bias corrected interval:  $.07--.35$ . Second, we also found evidence of serial mediation, such that contempt as well as dehumanization served to mediate the effect of the experimental manipulation on punishment (condition  $\rightarrow$  contempt  $\rightarrow$

dehumanization → punishment index),  $b = .02$ ,  $SE = .02$ ,  $p < .05$  (bias corrected interval: .00-- .07). We conducted this analysis once again, but instead of using the broad dehumanization index, we instead opted for the strict dehumanization index. Analyses suggested no substantive differences between the effects found using the broad index or the strict index.

## **Discussion**

Experiment 3 provides further evidence of our contempt-dehumanization framework, such that the indirect effect of contempt was a statistically significant predictor of dehumanization. In addition, we were also interested in whether our experimental manipulation was able to systematically predict motivation to punish norm violators. Here too, we found a conditional difference, such that participants randomly assigned to the severe condition had a greater desire to punish norm violators, in comparison to participants in the moderate condition. Participants in the severe condition supported longer prison sentences, increased support for the death penalty, and greater vigilantism against the drug dealers mentioned in the story.

We were also interested in whether our contempt-dehumanization model was able to predict the propensity to punish the norm violators from the story (see Appendix B). We found that both the indirect pathways for both contempt alone and contempt to dehumanization were statistically significant. These results suggest that there are downstream consequences to dehumanization, in the form of a greater willingness for punishing norm violators. Participants that felt greater contempt would be more likely to categorize the drug dealers as non-human. This categorization, in turn, led to an increased motivation to punish the nefarious drug dealers depicted in the story.

## GENERAL DISCUSSION

Previous models of dehumanization have tended to focus on affect as a *consequence* of dehumanization. That is, previous models have focused on the tendency for people to infer that dehumanized groups/individuals lack the capacity to feel the same kinds of emotional experiences as others (especially, members of the ingroup; Haslam et al., 2008; see also Leyens et al., 2000). The focus of the present research was different. In particular, we were focused on the role of affect as a mediator of dehumanization. In other words, when perceivers dehumanize others, what kinds of affective experiences are driving the dehumanization process?

Across three experiments, we found consistent support for the for our contempt-dehumanization framework. According to our model, severe norm violations can trigger the dehumanization process, but does so indirectly, via the activation of contempt. We provided support for our model across two domains of norm violations, including drug dealers that intentionally target young children (Experiments 1 and 3) as well as unscrupulous Wall Street investors that deliberately scam their elderly clients. To be sure, we are hardly the first to suggest that the process of dehumanization is likely to involve aversive reactions toward the targeted group. To our knowledge, however, we are the first to conduct formal tests of affective mediation. In so doing, we provide new insight into the specific role of affect in driving the dehumanization process.

### **Comparison of our Framework with Previous Models of Dehumanization**

As noted earlier, we are certainly not the only researchers highlighting the role of emotion in dehumanization. For example, Harris and Fiske (2006) suggest a relationship between moral violations and contempt/disgust, by claiming that past moral violations are likely to contribute to increased feelings of contempt and disgust. These repeated violations may

gradually shift repeated moral violators to the low-competence, low warmth quadrant of the stereotype content model. As a result, the quadrant itself is typically considered central to dehumanization. On a related note, the authors claim that this quadrant itself is most likely to be associated with feelings of disgust/contempt, as several researchers utilizing the stereotype content model has exhibited (Harris & Fiske, 2006, 2007; Fiske et al., 2002; Cuddy, Fiske, & Glick, 2008; Fiske, Cuddy, & Glick, 2007). This is evident in Harris and Fiske's (2006) model, as stimuli from this quadrant were associated with feelings of disgust for over 60 percent of the cases (see Harris and Fiske, 2006 for details).

Although we agree that feelings of disgust/contempt are *more likely* to occur in this quadrant (in comparison to the other three quadrants), it is not the properties of the quadrant *per se* that is likely driving these effects. Rather, we believe that contempt is the most proximal determinant of dehumanization. In other words, the driving force behind these effects is a byproduct of the emotion that participants feel towards the group, and not perceptions of the group's warmth and competence.

In summary, we believe that the Harris and Fiske (2006) conceptualization of dehumanization as a function of low warmth and low competence is probably too restrictive. If perceptions of low competence and warmth were necessary for dehumanization, then it would be unlikely to generate dehumanizing language to social groups that fall outside of these boundaries. However, our findings from Experiment Two seem to run somewhat contrary to Harris and Fiske's (2006) model, since the Wall Street investors committing the moral violation were described in dehumanized terms just as frequently as their low competence, low warmth counterparts. Since this group was dehumanized just as much as the drug dealers from the first experiment, it stands to reason that perceptions of competence are an unlikely component in

dehumanization. Furthermore, our results from Experiment One suggest that warmth, too, plays no direct role in the dehumanization process.

Two departures of our research vis a vis previous work should be noted. First, participants were asked to spontaneously generate ten words to describe the moral violators about which they read. The coding of spontaneous language—where participants were asked to come up with these words on their own—may be a significant advantage over explicit ratings of dehumanizing attitudes. For instance, asking participants to generate Likert-style ratings of moral violators' level of humanity might induce demand effects. However, since participants did not make explicit ratings, and instead generated words, we were able to alleviate such concerns.

Second, the use of a nontraditional control condition offers some benefits and, of course, some disadvantages. A traditional control condition might have participants write about the mundane events in their life or perhaps about a different social group that does not commit a moral violation. Although the use of such a condition may serve as a more effective emotional baseline, its use may introduce confounds. For example, participants that are asked to read about a different social group may engender feelings of contempt, which would likely increase the use of dehumanizing language. Instead, by using the same social group and simply varying the severity of the moral violation, we were able to circumvent this issue. Moreover, the use of a moderate violation committed by the same group of moral violators enables us to draw more confident conclusions about the implications of our data.

### **Caveats and Directions for Future Research**

Although the work presented here provides a foundational framework for the dehumanization process, our findings raise some considerations for future research in this area. For instance, the current research focused on social groups, and not individuals. We believe that

the kind of dehumanization processes revealed here can occur when people are judging a particular individual who is perceived to have strongly violated relevant norms. For example, when a romantic partner lies about sexual infidelities, or when a business partner cons one out of their financial assets, we believe the stipulated dehumanization processes may also be likely to occur, when describing the moral violator in question.

Future research should also consider examining the cognitive accessibility of dehumanizing terms when one or more moral violations occur. Although it is true that the spontaneous use of dehumanizing language is relatively infrequent, we believe that social desirability may explain its infrequent use. To more directly test the cognitive accessibility of dehumanizing language, participants could conceivably be assigned to conditions in which they are more likely to experience feelings of contempt in comparison to those that are not. Our belief is that those assigned to the severe violation condition will exhibit greater cognitive accessibility of dehumanizing terms in comparison to the control condition. Current research in this area is promising, as recent work by Buckels & Trapnell (2013) find that being primed with disgust-related concepts led to greater accessibility of dehumanizing concepts. Our lab plans to further examine this paradigm using implicit measures of dehumanization, to determine whether a feeling of contempt facilitates the accessibility of dehumanizing language.

### **Conclusion**

In conclusion, we believe that the contempt-dehumanization framework offers major insight into how dehumanization occurs. Previous dehumanization research has examined the perceived emotional abilities of the targets of dehumanization (Leyens et al., 2001), citing that dehumanized targets are perceived as lacking the ability to evoke secondary emotions. However, in our case, we are interested in whether an emotional signature of the person carrying out the

dehumanization exists. The data presented in this article provides support for our postulate that feelings of contempt by the perceiver are at the heart of dehumanization. We hope that future research advances and clarifies the dehumanization framework, so that subsequent work can gain insight into how the process of dehumanization may drive judgment and behavior towards social groups as well as the people who belong to them.

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## FOOTNOTES

<sup>1</sup> Our strict dehumanization index was positively skewed across all three studies (all studies skew > 2.0). Thus, prior to formal analyses, we reduced the skew of this index through a log transformation procedure (Cohen & Cohen, 1975). In the three studies with high positive skew, this procedure substantially reduced skew (all studies skew < 1.0). Thus, formal analyses for these three studies were conducted on the transformed indices. However, for ease of interpretability, the values to be presented in the text and in Table 1 are presented in their original (non-transformed) values.

<sup>2</sup> Experiment 1 did not reveal any gender differences for any of our analyses. Experiment 2 contained one significant gender effect, such that female (vs. male) felt greater levels of anxiety. Experiment 3 revealed only one gender effect, such that, overall female participants felt greater contempt than men. However, neither of these effects involved the experimental manipulation and hence do not qualify the implications of our conclusions. Hence, in all of the analyses to follow, we collapse over gender.

<sup>3</sup> We used this analytic approach over the classic mediational analysis as proposed by Baron and Kenny (1986) for four reasons. First, the first step of the Baron and Kenny mediation model requires a statistically significant relationship between our experimental condition and our dehumanization indices. Although this is true for almost all of the mediational analyses presented below, Experiment 3's conditional effect (using the strict dehumanization index) fell outside of conventional levels of statistical significance. Second, the Baron and Kenny approach does not allow for covariation. In particular, throughout all of the mediational analyses performed in this article, the emotional effects of anxiety were covaried from our analyses. Third, this approach does not allow for more complicated analyses, such as the multiple mediation analyses presented

in Experiment One and the serial mediation analyses presented in Experiment Three. Fourth, the Baron and Kenny (as well as the Sobel Test, 1982) assume that the product of the indirect affect is normally distributed. To circumvent issues of normal distribution, the statistic analysis tool offered by Hayes allows us to bootstrap these indirect effects.

<sup>4</sup> This assumption was verified in a small pilot study ( $N = 15$ ) run prior to conducting Experiment 2. Participants were randomly assigned to one of two versions of our Wall Street newspaper article (article details are presented in Appendix C as well as the methods section to follow). After reading the randomly assigned article, participants were asked how competent they perceived the Wall Street professionals on a scale of 0 (Not at all Competent) to 100 (Highly Competent). Overall, our grand mean ( $M = 52.67$ ) indicated that participants saw the Wall Street professionals as moderately competent. We also investigated if perceptions of the Wall Street professionals' competence varied by condition. Perceptions of competence trended in the same direction of Experiment One. Participants randomly assigned to the severe condition rated the moral violators as less competent ( $M = 45.71$ ) in comparison to the moderate condition ( $M = 58.75$ ), although, these differences did not approach conventional levels of statistical significance,  $F(1,13) < 1.0$ ,  $p = .50$ .

## Appendix A: Dehumanization Word List

### Strict Criterion

*Garbage*  
*Demon\**  
*Dirt bags*  
*Trash*  
*Scum\**  
*Inhumane*  
*Bitches*  
*Trash\**  
*Bottom Feeders*  
*Vampires*  
*Blood Suckers*  
*Leeches*  
*Animals*  
*Pigs*  
*Predators*  
*Snakes*  
*Rats*  
*Parasites*  
*Monsters*  
*Devils*  
*Jackals*  
*Worms*  
*Leeches*  
*Inhuman*  
*Not human*  
*Shit*  
*Crap*  
*Dirt\*/Dirty*  
*Prey*  
*Subhuman*

*Vipers*  
*Lamprey*  
*Waste*  
*Cesspool*  
*Weasels*  
*Pond Scum*  
*Rapscallions*  
*Scavengers*  
*Douchebag*  
*Jackasses*  
*Maggots*  
*Shit Rooster*  
*Venomous*

### Additional Items included under broad criterion

*Heartless*  
*Spineless*  
*Soulless*  
*Immoral*  
*Careless*  
*Uncaring*  
*Ruthless*  
*Shameless*  
*Emotionless*  
*Low Morals*  
*Cold-hearted*  
*Conscienceless*  
*Black Hearted*  
*Unethical*  
*Unscrupulous*  
*Amoral*  
*Valueless*  
*Lack of Morals*  
*Unfeeling*  
*Jackasses*  
*Moral-less*  
*Morally bankrupt*  
*Slimy*  
*Filthy*  
*Base*  
*Worthless*  
*Scoundrels*  
*Impaired*  
*Degenerates*  
*Antisocial*

## Severe



Kansas City - They're colorful, flavorful and they might appeal to your kids. But they're also dangerous street drugs. Without drug users, drug dealers would go out of business. Because there needs to be a demand for the illegal drugs they produce and traffic, dealers are continually looking to attract more "customers" -- to get more people "hooked on their junk." And among drug dealers there are no qualms about target-marketing kids," says COMBAT Assistant Director of Operations Vince Ferris, a 30-year veteran of the Kansas City, Missouri Police Department.

"They're trying to create the next generation of addicts -- their *new* customers -- by creating 'products' made to appeal specifically to children." Here are just three examples: Ecstasy pills shaped like cartoon characters, methamphetamine packaged like candy and marijuana-laced treats. "That's purposeful," says Ferris, "It's why they package drugs that way. They make it so it doesn't seem so harmful. It's scary to see that because we're having more youth come in that are minimizing the effects drugs can have on them." But its use has gone up. Last year alone, Immigration and Customs Enforcement agents intercepted a half-million tablets in Washington State, mostly at the border.

The Federal Drug Enforcement Agency (DEA) began raising awareness about Ecstasy tablets shaped like Snoopy and Dora the Explorer in a June 2009 bulletin issued to law enforcement agencies across the nation. A month later, a U.S. Border Patrol dog discovered more than 46 pounds of the pills stuffed in a suitcase on a bus in Harlingen, Texas. How many pills would that have been? Consider this: Approximately 200 ecstasy pills, seized in another Texas arrest, tipped the scales at around 63 grams -- about one-tenth of a pound.

## Moderate



Kansas City - They're "healthy", flavorful and they might appeal to Young professionals. But they're also dangerous street drugs. Without drug users, drug dealers would go out of business. Because there needs to be a demand for the illegal drugs they produce and traffic, dealers are continually looking to improve product -- to get more people "hooked on their junk." And among drug dealers there are no qualms about using," says COMBAT Assistant Director of Operations Vince Ferris, a 30-year veteran of the Kansas City, Missouri Police Department.

"They're trying to create the next generation of addicts -- their *new* customers -- by creating 'products' made to appeal adults with expendable income. Here are just two examples: Ecstasy pills shaped like celebrities and marijuana-laced health bars. "That's purposeful," says Ferris, "It's why they package drugs that way. They make it so it doesn't seem so harmful. It's scary to see that because we're having more adults come in that are minimizing the effects drugs can have on them." But its use has gone up. Last year alone, Immigration and Customs Enforcement agents intercepted a half-million tablets in Washington State, mostly at the border.

The Federal Drug Enforcement Agency (DEA) began raising awareness about Ecstasy tablets shaped like Hollywood celebrities in a June 2009 bulletin issued to law enforcement agencies across the nation. A month later, a U.S. Border Patrol dog discovered more than 46 pounds of the pills stuffed in a suitcase on a bus in Harlingen, Texas. How many pills would that have been? Consider this: Approximately 200 ecstasy pills, seized in another Texas arrest, tipped the scales at around 63 grams -- about one-tenth of a pound.

## Severe



NEW YORK –Shady Wall Street Investors don't have to bilk billions to do real harm. In just the last two weeks, The Associated Press reported on at least a dozen cases in which investors were accused of stealing, on average, just over \$416 million from the unsuspecting elderly, people typically reliant on social security. Their alleged frauds touched retirement-aged couples in as many as 22 states.

Senior citizens are especially vulnerable to con artists peddling Ponzi schemes and other dead-end deals. “Most victims are older and many of them have cognitive impairment,” said Denise Voigt Crawford, the Texas State securities commissioner. The problem is going to get worse as baby boomers age, she said, adding that one new twist is many of the newest swindlers are also elderly.

Even worse, many of these investors are well aware of this cognitive impairment and deliberately target elderly couples as a result, since this age bracket highlights a highly susceptible section of the American population. "There's nothing worse than seeing an elderly couple who's been scammed out of \$50,000 or \$60,000 or \$70,000 - oftentimes their life savings," said Michael Kappas, CEO of Apprisen Financial Advocates in Columbus, Ohio.

Seniors who live alone may be the most vulnerable - the "elderly widow" is an investor's classic target. And the rapid migration of seniors online may expose this population to even more fraud. Nielsen estimates the number of Internet users age 65 and older shot up 55 percent in the last five years.

## Moderate



NEW YORK – Shady Wall Street Investors don't have to profit from regular Americans to do real harm. In just the last two weeks, The Associated Press reported on at least a dozen cases in which investors were accused of stealing from wealthy Americans, mostly upper class families, whose net worth average in upwards of ten million dollars.

These wealthy couples are not new to investing, but aren't completely competent in some of the slight changes that the Securities and Exchange Commission has implemented since the 2008 stock market crisis. “Most of the wealthy couples are experienced investors, trying to gain money using investing tricks that worked years before the recession, with trust that their Wall Street investor partners would recognize that ” said Denise Houghman Johnston, the Arkansas State securities commissioner. The problem is going to get worse before it gets better, with investment knowledge needing to improve before these wealthy Americans are able to make some of their money back.

It's unfortunate to see a wealthy couple who's been fooled out of \$50,000 or \$60,000 or \$70,000 - oftentimes their down payment for a summer condo or a new car," said Michael Kappas, CEO of Apprisen Financial Advocates in Columbus, Ohio. Wealthy couples beginning to reinvest in the stock market may face a bit of a learning curve to these new regulations, with hopes that their financial investors instruct them of the changes that have been made.

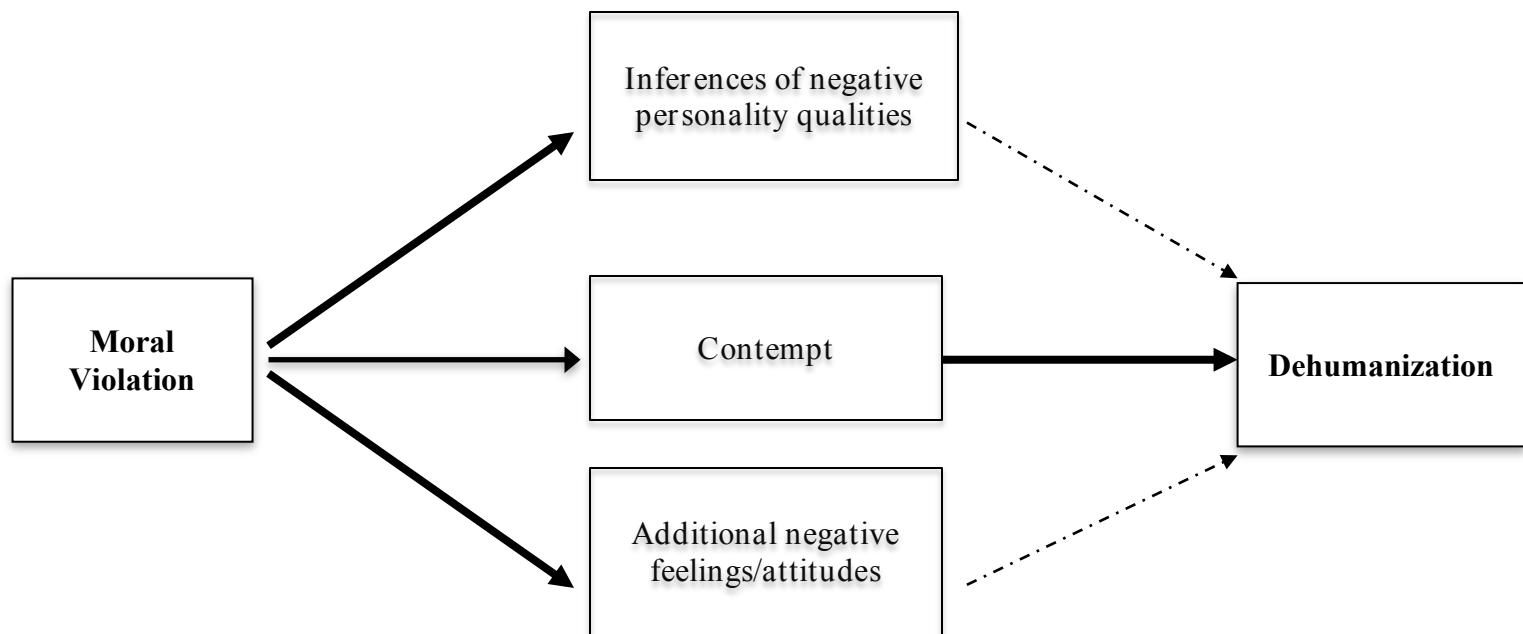


*Table 1: Correlational Analyses (Experiment 1)*

| Measure                                      | (1) | (2)              | (3)    | (4)              | (5)    | (6)     | (7)     |
|--|-----|------------------|--------|------------------|--------|---------|---------|
| 1. Condition (0 = control; 1 = experimental) | -   | .20 <sup>*</sup> | .28**  | .28**            | .38*** | -.28**  | -.36*** |
| 2. Dehumanization Index—Strict               |     | -                | .72*** | .17 <sup>†</sup> | .46*** | -.32**  | -.25**  |
| 3. Dehumanization Index—Broad                |     |                  | -      | .20*             | .49*** | -.41*** | -.24*   |
| 4. Anxiety                                   |     |                  |        | -                | .63*** | -.26**  | -.05    |
| 5. Contempt                                  |     |                  |        |                  | -      | -.50*** | -.22*   |
| 6. Warmth                                    |     |                  |        |                  |        | -       | .24*    |
| 7. Competence                                |     |                  |        |                  |        |         | -       |

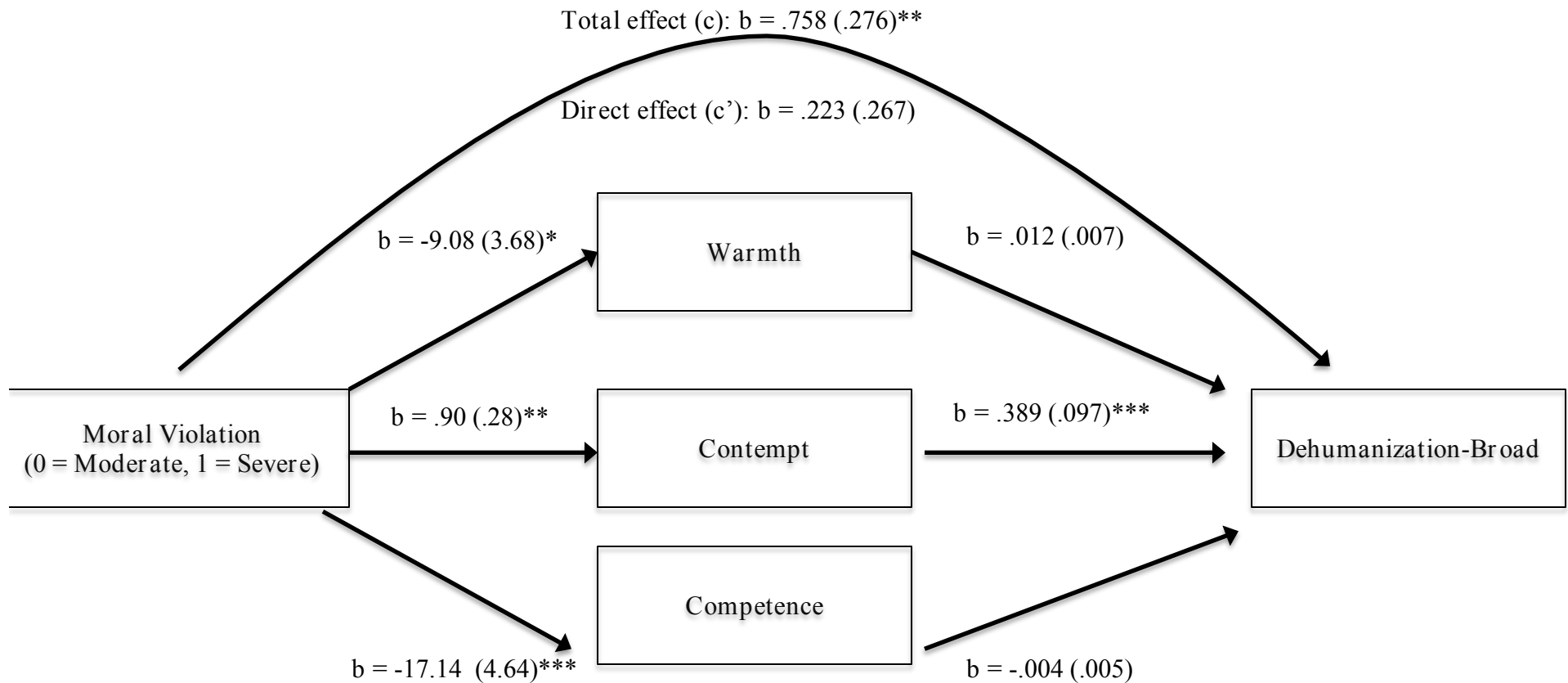
<sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

**Figure 1: Schematic of the Contempt-Dehumanization Framework**



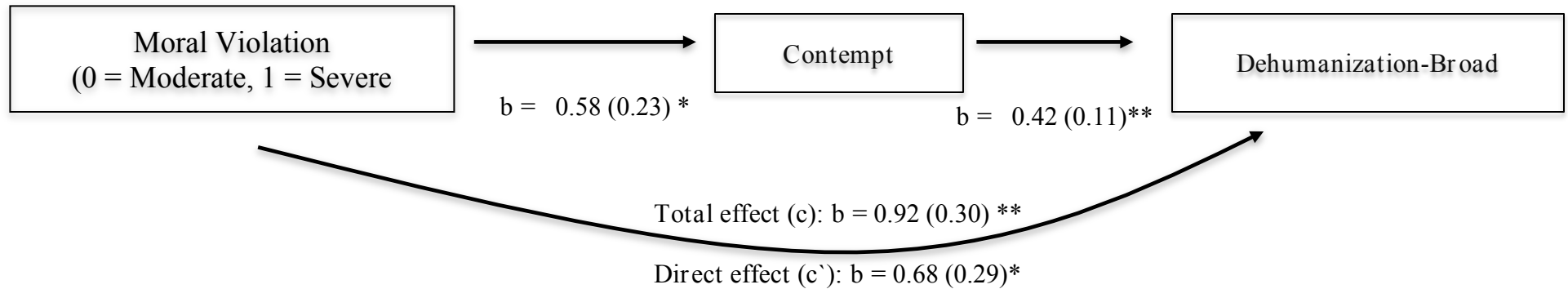
Note: dotted arrows represent pathways that are postulated to be weak after statistically controlling for contempt.

**Figure 2: Experiment One Multiple Mediation Analysis of the Broad Dehumanization Index**



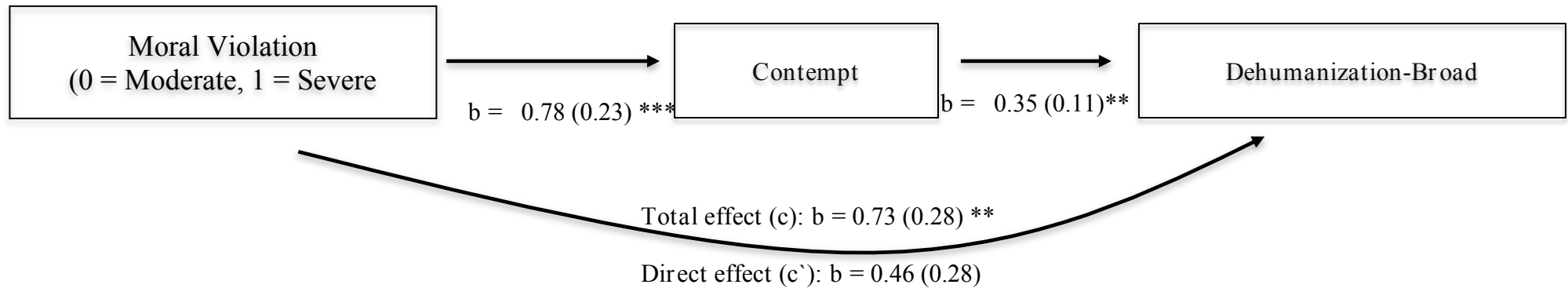
Note: Moderate vs. severe moral violation corresponds to conditions in which drug dealers young professionals vs. children, respectively (see text). <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

**Figure 3: Experiment Two Mediation Analysis of the Broad Dehumanization Index**



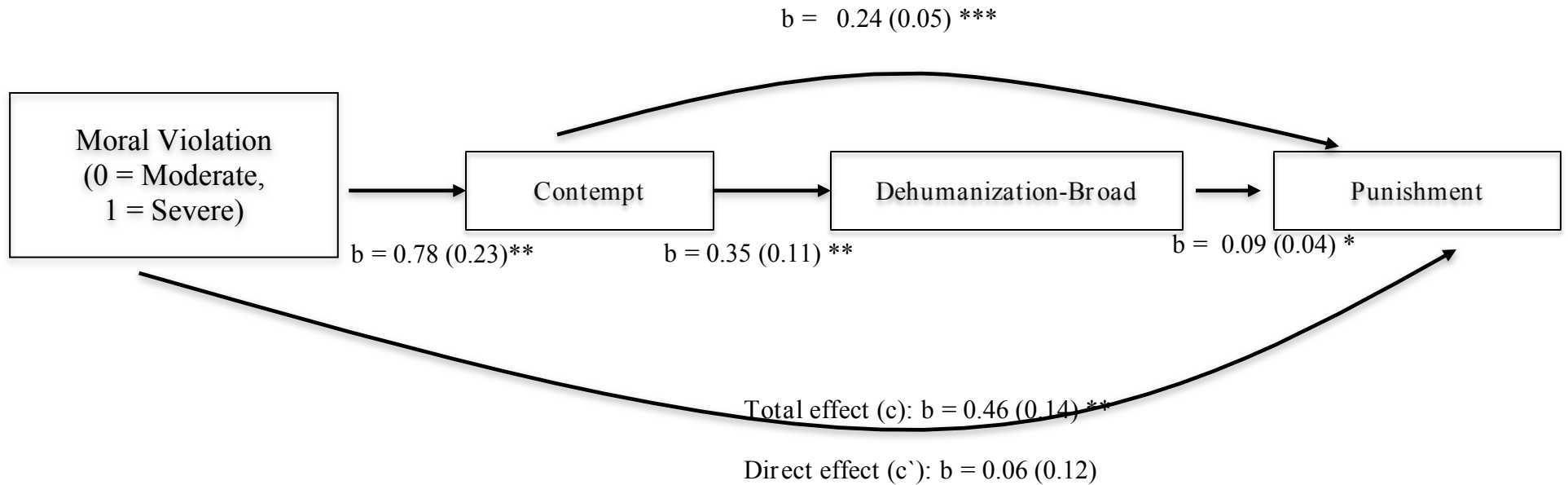
Note: Moderate vs. severe moral violation corresponds to conditions in which Wall Street investors targeted affluent vs. elderly couples, respectively (see text). <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

**Figure 4: Experiment Three Mediation Analysis of the Broad Dehumanization Index**



Note: moderate vs. severe moral violation corresponds to conditions in which drug dealers targeted young professionals vs. children, respectively (see text). <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Figure 5: Experiment Three Serial Mediation Analyses of Punishment Index**



Note: moderate vs. severe moral violation corresponds to conditions in which drug dealers targeted young professionals vs. children, respectively (see text). The absence of an explicit pathway between variable indicates no explicit relationship between the variables in question. <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$