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Trait Contempt and the Five Moral Foundations

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Biography

Rusty L. Steiger was born in Burbank, Illinois, September 26th, 1984. He graduated from Lemont High School and received his Bachelor of Arts degree from Lewis University in 2012. With the completion of this thesis, he will receive his Master of Arts degree in Psychology from DePaul University in 2015.

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Abstract

Rozin and colleagues' CAD model (1999) proposed that violations of three different moral domains (community, autonomy, and divinity) each elicit a specific emotional response (contempt, anger, and disgust). Moral Foundations Theory (MFT; Haidt & Joseph, 2007) is a five-factor moral taxonomy derived from the three moral domains used in the CAD study. This thesis investigates whether the CAD model fully applies to MFT, regarding both state and trait emotions. In keeping with the CAD model, previous research found that state anger relates to harm and fairness violations (autonomy), and that both state and trait disgust relate to purity violations (divinity; Horberg, Oveis, Keltner, & Cohen, 2009). However, no study has empirically tested whether the loyalty and authority foundations (community) relate to state or trait *contempt*. This gap in the literature was investigated across two studies. Study 1 used a correlational design that primarily focused on the development of a new comprehensive trait contempt instrument and construct; exploratory and confirmatory factor analyses indicated that the instrument's items formed factors that matched their predicted structure, and that each of these factors contributed strongly to a latent trait contempt construct. To test the convergent and discriminant validity of the new instrument, participants completed previously developed instruments that assess trait anger, trait disgust, and trait contempt (Crowley, 2013; Izard et al., 1993). However, a principle components analysis that included these instruments did not fully support the new instrument's discriminant validity, as trait anger and disgust did not form separate factors from trait contempt but rather loaded onto dimensions of

trait contempt relating to other-criticalness. Finally, in order to test whether trait contempt predicts loyalty and authority values, participants completed the Moral Foundations Questionnaire (Graham et al., 2011). Contrary to expectations, trait contempt was not associated with authority, and was *negatively* associated with loyalty values. Study 2, a within-subjects experiment, used contempt's unique facial expression as a way to assess contempt's relation to MFT. Participants engaged in a facial expression-rating task: They read short scenarios featuring violations of the five moral foundations, and then rated photos of contempt, anger, and disgust facial expressions according to *how strongly* they felt each emotion. Study 2 appears to be the first study to use a facial expression photo paradigm (similar to Rozin et al., 1999) to test the relations between the CAD emotions and MFT. Contrary to predictions, although contempt was significantly associated with loyalty and authority violations, this association was not unique, as contempt was statistically similar to both anger and disgust across *all* moral violations except purity. Participants also completed the trait contempt instrument from Study 1; this was done to test whether overall contempt expression ratings could be used as an alternate measure of trait contempt. However, contempt expression ratings were not significantly associated with trait contempt, either across or within scenario types. Finally, Study 2 tested the relation between trait contempt and immorality judgments towards loyalty and authority foundation violations; trait contempt was *not* significantly associated with either. Although hypotheses pertaining to the CAD model and MFT were disconfirmed, this thesis makes several contributions. The development of a comprehensive trait contempt

construct and instrument may provide opportunities for a wide range of future studies. Trait contempt may predict behaviors such as discrimination and attitudes such as prejudice, social dominance orientation, and political ideology. Studies 1 and 2 were also the first to comprehensively test both contempt and trait contempt's relation to moral foundation theory; their results may cast some doubt on the original CAD study's findings. Finally, this study's findings contribute a greater understanding of the link between personality, emotion, and moral values.

Introduction

Imagine an individual who is always complaining about people that do not live up to his *minimum expectations* of how people *ought to behave* or *ought to be*. He is almost hyper-vigilant of idiotic and careless strangers, selfish and inconsiderate drivers, incompetent service people, and spiteful coworkers. When someone violates what he sees as important unwritten social rules, his first response is to quickly, but quietly, attribute it to their stupidity - or some other fundamental personality defect. He feels surrounded by "morons," "screw-ups," and "jerks." He is quick to lose respect and empathy for such people, and treats them coldly when he does. He frequently complains about such people's social rule-breaking behaviors and personality flaws to friends and acquaintances (Hutcherson & Gross, 2011). However, those listening to these complaints may view many of the described behaviors as somewhat trivial, and may rarely even notice such behaviors occurring in their own day to day lives (Spielberger, 1996). This individual's attitudes often imply an exasperated sense of superiority over most people – "If *I* can live up to these minimum standards of behavior, *why can't they*?"

How might this pattern of emotional, cognitive, and behavioral responses be characterized? Some might generally describe this individual as grouchy, irritable, or judgmental. However, in psychological terms, this person would best be characterized as being particularly prone towards feeling the emotion of *contempt* – perhaps best described as cold feelings of dislike combined with negative character judgments and a loss of warmth, empathy, and respect (Fischer

& Roseman, 2007; Miller, 1997). Specifically, such an individual would be very high in *trait contempt* – or a predisposition towards feeling contempt more easily, frequently, and intensely than the average person (Izard et al., 1993; Spielberger, 1996).

How might high levels of trait contempt affect this person's life, mind, and attitudes? Trait contempt might be expected to affect things such as mood, life satisfaction, interpersonal relationships, pessimism, and conflict (Crowley, 2013). However, less intuitively, it may be the case that this person's high level of trait contempt may predict the endorsement of certain types of *moral values*. Specifically, indirect evidence from the moral emotion literature indicates that high levels of trait contempt might predict an increased concern over moral values relating to: tradition, hierarchy, adherence to social roles, respect towards authority, loyalty to one's in-group, and the intense dislike of those who violate or oppose such values (Graham et al., 2009; Haidt et al, 2009; Rozin et al., 1999; Shweder et al., 1997).

However, any attempt to study trait contempt and its relation to values and ideology features a significant obstacle: contempt has received relatively little comprehensive attention by researchers, in comparison to other emotions (Haidt, 2003). More importantly, the concept of *trait* contempt has received hardly any attention at all, and remains ill-defined. As such, a contemporary and comprehensive definition of contempt as an emotion, and trait contempt as a construct, must be developed. Furthermore, in order to investigate the link between trait contempt and moral values, the development of a contemporary trait

contempt *instrument* is required. This is because the only other seemingly available instrument is 20 years old (Izard et al., 1993), and does not incorporate several important findings from the more recent contempt literature. Specifically, this older trait contempt instrument (1993) may not sufficiently incorporate contempt's unique elicitors, action tendencies, and affective experience (Fischer & Roseman, 2007; Hutcherson & Gross, 2011).

In order to provide sufficient background for the proposed link between trait contempt and moral values, several areas of the literature will be reviewed. This will include past and contemporary literature on moral values, moral emotions, and the link between negative emotions and specific types of moral values. This will be followed by an explanation of a gap in the moral emotion literature, and how trait contempt may explain this gap. However, because both contempt and trait contempt remain ill-defined, additional areas of the emotion literature will be reviewed. This review will include the functionalist model of emotion, previous literature on contempt, methodological problems – and solutions to - assessing contempt, a contemporary definition of contempt, and the concept of trait emotions. Synthesizing these elements, a contemporary definition of contempt as an emotion, and trait contempt as a construct, will then be developed.

Past Perspectives on Morality

For many years, psychological researchers defined morality almost exclusively in terms of fairness, harm, or help towards *individual people*, while treating any potentially group-based moral values as either immature moral

reasoning, or as mere social convention (Graham, Haidt, & Nosek, 2009; Haidt, 2003; Kohlberg, 1969; Turiel, 1983). Additionally, this line of research focused on how people developed or exercised moral *reasoning*, largely to the exclusion of any potential moral *emotions*, other than empathy or guilt (Haidt, 2003). For example, Kohlberg (1969) defined moral development almost exclusively in terms of increasingly sophisticated notions of justice (i.e. fairness). Turiel (1983) defined morality exclusively in terms of rights, justice, and welfare (i.e. fairness and harm). And indeed, the vast majority of morality research has focused almost exclusively on *reasoning* about harm and fairness towards *individuals* (Haidt, 2003, 2012). However, contemporary perspectives have expanded the moral domain beyond this limited scope to include processes besides reasoning, values besides harm and fairness, and moral units besides the individual (Haidt 2003, 2012).

Contemporary Perspectives on Morality: Group-Level Moral Values

During the last two decades there has been a significant paradigm shift in theoretical perspectives on morality. Research has increasingly shown that there is significant variability in both the range and defining characteristics of morality (Haidt, 2003; Shweder, Much, Mahapatra, & Park 1997). Increasing attention has been paid to a wide array of moral *emotions*, rather than moral reasoning, as a significant driver of moral judgment (Haidt, 2003, 2012; Rozin et al., 1999). Additionally, increasing attention has been paid to different types of moral values which place the *group, community, or society* as the locus of morality, rather than the individual (Graham et al., 2009; Shweder et al., 1997). In regards to the latter,

two major theories have strongly influenced the increasing acknowledgement of group moral values as part of the moral domain. These two major theories are Shweder's three ethics (Shweder et al., 1997) and Haidt's Moral Foundations Theory (Haidt & Joseph, 2007; Haidt et al., 2009).

Shweder's Three Ethics. One of the first to articulate a broadened, group-level moral domain was Shweder, who described three major ethics: autonomy, community, and divinity (Shweder et al., 1997). Shweder found that Westerners tended to define morality almost exclusively via an ethic of *autonomy*: morality was almost exclusively defined in terms of harming or helping *individuals*, and treating them fairly. Autonomy violations are violations of freedom or rights: in other words, an action is a moral violation if it causes harm to another individual or if an individual is treated unjustly (Rozin et al., 1999). Key concepts that fit with the ethic of autonomy include justice, fairness, freedom, rights, liberty, and independence (Shweder et al., 1997; Rozin et al., 1999). And indeed, this moral perspective closely matched the theories of Kohlberg (1969) and Turiel (1983). However, Shweder found that populations from non-western cultures often had a broader conception of the moral domain, which included not only the individual-level ethic of autonomy, but also two group-level moral values as well: the ethics of *community* and *divinity* (Shweder et al., 1997).

The ethic of community emphasizes moral values that relate to maintaining social harmony, protecting cultural institutions and the in-group's interests as if they were one's own, and respecting or maintaining well-defined

social roles and hierarchy (Shweder et al., 1997). Moral violations of the ethic of community occur when people fail to carry out their duties to the community or to the hierarchy they belong to, or when they fail to live up to others' expectations. Key concepts that fit into the ethic of community include obligation, duty, authority, respect, and interdependence (Rozin et al., 1999; Shweder et al., 1997).

The ethic of divinity characterizes humans as spiritual beings, and emphasizes reverence for the sacred, tradition, and the natural order of things (Shweder et al., 1997). The ethic of divinity is also characterized by the condemnation or avoidance of people or behaviors which are seen as taboo, carnal, dirty, degrading, undignified, animalistic, or impure (Shweder et al., 1997). Divinity violations occur when people disrespect sacred or holy things, or cause degradation or spiritual contamination to the self. Key concepts of the ethic of divinity include purity, restraint, self-control, abstinence or chastity, sin, pollution, unnaturalness, degradation, defilement (Rozin et al., 1999; Shweder et al., 1997).

In populations characterized by increased valuation of these group-level ethics, Shweder found that rules and restrictions pertaining to these values were not considered mere culturally relative social conventions: rather, they were considered universal moral mandates (Haidt, Koller, & Dias, 1993; Shweder, Mahapatra, & Miller, 1987). That is to say, acting in violation of the norms and rules of community and divinity values is considered a severe moral transgression, even if no people are harmed by the act and the action is done privately (Haidt et al., 1993; Shweder, Mahapatra, & Miller, 1987). When first

presented, Shweder's three ethics made a significant contribution to the moral values literature by describing the prevalence of group-level values in addition to individual-level values. However, contemporary research has expanded his ideas to provide more detailed insight into the variations humans have in their moral values (Shweder et al., 1997; Haidt & Joseph, 2004).

Moral Foundations Theory. A more recent theoretical perspective has had a large impact on the moral values literature; this perspective is known as Moral Foundations Theory, and is largely derived from Shweder's three ethics (Graham et al., 2009; Haidt & Joseph, 2004; Haidt et al., 2009). Specifically, it expands the three ethics into five moral foundations (Graham, et al., 2009). The ethic of autonomy has been split into two foundations: the harm/care and fairness/reciprocity foundations (Haidt et al., 2009). Similarly, the ethic of community has been split into two foundations: in-group/loyalty and authority/respect. Finally, the divinity foundation has been renamed as the purity foundation, and covers an expanded range of concepts. Shweder's theories are largely compatible with Moral Foundations Theory, although the five factor model of morality has been shown to provide more explanatory power than Shweder's three factor model (Haidt et al., 2009).

For ease of reference, the literature has generally referred to harm/care and fairness/reciprocity as the *individualizing* foundations, whereas it has referred to authority, loyalty, and purity as the *socially binding* foundations. Individualizing foundations focus on *individuals* as the central moral unit (Haidt, 2008; Haidt et al., 2009). In contrast, socially binding foundations focus on *groups* as the central

moral unit, emphasizing that the values centered on institutions and social roles are important in regulating selfishness: i.e. binding people to these communities and roles (Haidt, 2008; Haidt et al., 2009). That is to say, these three foundations bind individuals into groups, communities, and societies via in-group loyalties, respect for social roles and the social order, and self-control (Haidt et al., 2009).

Individualizing foundations: Harm and fairness. The harm/care foundation is concerned with the suffering of the self and others (Haidt et al., 2009; Haidt & Joseph, 2004). Its virtues (i.e. *care*) include concepts such as empathy, concern, compassion, and a moral imperative to not harm others (Haidt et al., 2009; Haidt & Joseph, 2004).Violations of this foundation (i.e. *harm*) are acts of cruelty, brutality, violence, harming life or limb, etc. (Haidt et al., 2009). The fairness/reciprocity foundation is concerned with social equality and proportionality (Haidt, 2012). Fairness pertains to the self and others being treated fairly and equally, while reciprocity pertains to the desire for people to get rewards equal to their efforts – along with an indignation towards behavior such as cheating or free-riding (Haidt, 2012; Haidt et al., 2009; Haidt & Joseph, 2004). The fairness/reciprocity foundation also includes more sophisticated or abstract concepts of justice, including social justice and human rights (Haidt & Graham, 2007).

The individualizing foundations emphasize values and moral priorities similar to those described by Kohlberg (1963) and Turiel (1983). That is to say, the harm and fairness foundations frame morality primarily in terms of harming or helping individuals, and treating them fairly. Groups, communities, and

institutions are seen as moral units only to the extent of the individuals they are comprised of (Haidt, 2012). To that end, if one's moral values are defined primarily by the harm/care and fairness/reciprocity foundations, then violations of the socially-binding moral foundations that do not harm or negatively affect other people are not seen as morally relevant (Haidt, 2012; Haidt et al., 1993).

Socially binding foundations: Loyalty, authority, and purity. In Moral Foundations Theory, the ethic of community was split into two foundations: in-group/loyalty and authority/respect (Haidt & Joseph, 2004; Haidt et al., 2009). The in-group/loyalty foundation pertains to being a good member of the group, such as the family, the community, institutions, society, or country (Haidt et al., 2009). Its virtues include concepts such as loyalty, putting the group before oneself, patriotism, and vigilance or sensitivity towards signs of group subversion, betrayal, or disloyalty (Haidt et al., 2009; Haidt & Joseph, 2004). Violations of this foundation include disloyalty, undermining group solidarity, and betrayal (Haidt & Joseph, 2004; Haidt et al., 2009).

Authority/respect is the second moral foundation derived from the ethic of community (Haidt & Joseph, 2004; Haidt et al., 2009). The authority/respect foundation pertains to respecting and upholding the social order, e.g. tradition, and fulfilling the obligations of hierarchical social roles and relationships (Haidt et al., 2009). Its virtues include concepts such as obedience, respect, and fulfilling the obligational duties of one's social roles (Haidt et al., 2009). It also relates to the virtues of authority figures, such as good leadership and protecting subordinates (Haidt et al., 2009). Violations of this foundation include concepts

such as insubordination, disrespect, and the flouting or challenging of tradition, the law, or legitimate authorities (Haidt et al., 2009).

Finally, the ethic of divinity was renamed the purity foundation and, conceptually, they are very similar (Graham et al., 2009; Haidt, 2012). Like the ethic of divinity, the purity foundation primarily concerns avoiding bodily and spiritual contamination (Haidt et al., 2009). So-called spiritual contaminants to avoid may include taboo desires, thoughts, influences, ideas, media, ideologies, or beliefs (Haidt, 2012; Haidt & Joseph, 2004; Haidt et al., 2009). Virtues related to the purity foundation may include concepts such as wholesomeness, decency, abstinence or chastity, and self-control over base or carnal desires (Haidt et al., 2009; Haidt & Joseph, 2004). Violations of the purity foundation typically involve a person behaving in an undignified, uncontrolled, or "animalistic" fashion that is unbefitting of humanity's status as a spiritual or higher being (Haidt, 2012; Haidt & Joseph, 2004; Haidt et al., 2009).

Morality and Emotion

Emotion and morality are strongly linked. In many cases, it is often an individual's immediate affective response to an event that is the best predictor of moral judgment – far and above any stated explanation or rationale a person might subsequently give for that judgment (Haidt & Joseph, 2004; Haidt et al., 1993). That is to say, in many cases, when moral judgments are made towards an event, an affective intuition, or quick emotional assessment, comes first (Haidt & Joseph, 2004; Haidt et al., 1993). In such cases, only then does an individual begin to search for reasons or explanations to support this quick emotional insight

(Haidt & Joseph, 2004; Haidt et al., 1993). And indeed, if an emotional response towards an event is particularly strong, many people will stick quite tenaciously to their initial moral judgments, even if all of their stated rationales for their judgment have been completely debunked (Haidt et al., 1993). In short, emotions are a powerful driver of moral judgment, and in many cases they are the primary influence (Haidt, 2012; Haidt et al., 1993).

Different Types of Moral Emotions. The link between morality and emotion is not limited to a general relationship. Specific emotions may relate to specific types of moral judgments and values (Haidt, 2003; Weiner, 2006). Haidt characterized these *moral* emotions as being unique in two ways (2003). First, their elicitors can often be impersonal, in that the emotion can often be triggered by the behavior of impersonal or unfamiliar others (Haidt, 2003). Next, their action tendencies tend to be highly social in nature, in that moral emotions prompt individuals to help or harm other people – or society at large (Haidt, 2003). Weiner identified moral emotions as especially relating to thoughts about "controllability, volition, and responsibility" (2006, p. 87).

Both Haidt and Weiner have identified a specific number of moral emotions (Haidt, 2003; Weiner, 2006). Both also classified these moral emotions into distinct types of categories. Weiner proposed that moral emotions could be classified into categories based on combinations of their "locus" and their "antecedent" (2006, p. 95). The locus, or *target* of the emotion, can be either the self or another person (Weiner, 2006). The antecedent, or the emotion's *trigger or elicitor*, pertains to judgments about the "controllability" or "uncontrollability" of

the target's behavior or abilities (Weiner, 2006, p. 95). As such, Weiner classified moral emotions largely in terms of their underlying cognitions, rather than their particular valence (2006). In contrast, Haidt proposed that moral emotions could be grouped into four major categories: self-critical, other-suffering, other-praising, and other-critical (2003). This categorization is similar to Weiner's (2006), in that it is classified by target (self versus other). However, it differs in that Haidt's additional level of classification centers primarily on action tendencies (Haidt, 2003).

Classifications of the moral emotions. Shame, embarrassment, and guilt are considered self-critical emotions, related to assessments of the self, rather than others (Haidt, 2003; Lewis, 1993). Sympathy, empathy, and pity are considered other-suffering emotions, which are generally trigged by the distress or suffering of others (Haidt, 2003; Rozin et al., 1999). Gratitude and elevation are considered other-praising emotions, which are powerful positive responses to others' virtuous behavior (Haidt, 2003). However, because self-critical, other-suffering, and other-praising emotions do not pertain to this thesis, they will not be discussed further. The set of moral emotions which *are* directly relevant to this thesis are those known as the *other-critical* emotions: contempt, anger, and disgust (Haidt, 2003; Rozin et al., 1999).

The other-critical emotions of contempt, anger, and disgust have been identified as belonging to a similar category for quite some time. Izard (1977) called contempt, anger, and disgust the *hostility triad*. Izard proposed that they all involve disapproving of others, and are often experienced concurrently in daily

life. Additionally, these three emotions are somewhat unique in that they are frequently experienced towards third parties who have no personal relationship or direct interaction with the person experiencing the emotion (Haidt, 2003). For example, simply reading about injustice can make one angry, even if the victims of the injustice are unknown strangers in another country (Haidt, 2003). Similarly, someone can very easily feel contempt or disgust towards politicians, celebrities, or subjects of gossip with whom they have never personally interacted (Haidt, 2003).

The three *other-critical* emotions of contempt, anger, and disgust may have their evolutionary roots in reciprocal altruism (Haidt, 2003). Working together and cooperating with others produces greater returns than the same individuals could produce separately, and this greatly increases the survivability of groups (Haidt, 2003). However, at the same time, this also creates the need to distance oneself from those who do not reciprocate, leading to a desire to avoid or punish cheaters, exploiters, liars, and hypocrites who disrupt the group or do not pull their own weight (Haidt, 2003; Hutcherson & Gross, 2011). This sensitivity to bad group members or potential burdens may explain why these "other-condemning" negative social emotions can so easily be felt towards third parties; in adaptive terms, they may serve as a way to detect and avoid potential group members who could be detrimental to survival – such as those who do not play by society's rules or will not pull their own weight (Haidt, 2003; Hutcherson & Gross, 2011).

Links between Other-Critical Emotions and Moral Values

It has been found that the other-critical emotions of contempt, anger, and disgust tend to be differentially elicited by specific types of moral or social violations (Horberg, Oveis, Keltner, & Cohen, 2009; Hutcherson & Gross, 2011; Rozin et al., 1999). One of the most comprehensive examples of the link between specific moral violations and specific emotions was a study by Rozin and colleagues (1999), which examined the three other-critical emotions within the context of Shweder's three ethics (Shweder et al., 1997). It revealed that participants tended to experience contempt, anger, or disgust depending on which of Shweder's three ethics were violated (Rozin et al., 1999). This has been called the "CAD" hypothesis. It was found that violations of the ethic of community (social rules and hierarchy) tended to elicit *contempt*, violations of the ethic of autonomy (individual rights) tended to elicit *anger*, and violations of the ethic of divinity (purity or sanctity) tended to elicit *disgust* (Rozin et al., 1999).

Since moral foundations theory was directly derived from Shweder's three ethics (Shweder et al., 1997), it stands to reason that the pattern shown in the CAD study (Rozin et al., 1999) should also hold true for the five moral foundations as well (Haidt et al., 2009). That is to say, violations of the harm and fairness foundations (ethic of autonomy) should elicit anger, violations of the loyalty and authority foundations (ethic of community) should elicit contempt, and violations of the purity foundation (ethic of divinity) should elicit disgust (Alderman, Dollar, & Kozlowski, 2010; Haidt, 2012; Horberg et al., 2009). Some studies have indeed demonstrated this link between other-critical emotions and violations of particular moral foundations. Specifically, fairness/reciprocity

violations have been shown to elicit anger, and purity violations have been shown to elicit disgust (Horberg et al., 2009). However, it should be noted that while some studies have referenced the relation between the CAD emotions and the five foundations (e.g. Alderman et al., 2010), it does not seem to be the case that any published study has specifically tested the relations between all five moral foundations and all three CAD emotions at the same time and within the same dataset.

As evidenced from the CAD study, contempt and disgust are linked to the three socially binding foundations. As such, it has been demonstrated that this relation between specific emotions and moral values works in a top-down fashion. That is to say, when a moral value has been violated (top), it tends to elicit an emotion specifically related to that moral value (down) (Rozin et al., 1999). However, there is evidence that this relation works in a bottom-up fashion as well. Specifically, it may be the case that the increased levels of contempt or disgust in an individual (bottom) may predict increased awareness of, and sensitivity to, moral violations related to that emotion (up) (Graham et al., 2009; Horberg et al., 2009).

Individual Differences in Emotion as a Predictor for Group-Level Moral Values

With the "CAD" hypothesis in mind, the area of *trait emotions* – or a predisposition towards feeling certain emotions more easily, frequently, and intensely than the average person – should be an individual difference variable which predicts distinct patterns of moral foundation valuation (Haidt et al., 2009;

Horberg et al., 2009; Rozin et al., 1999; Vagg & Spielberger, 1999). That is to say, if someone is predisposed towards feeling a particular emotion more widely, frequently, and intensely than the average person, it may be the case that this subsequently predicts increased valuation of the moral foundation(s) linked to that emotion (Graham et al., 2009; Horberg et al., 2009). The idea that emotional predispositions can predict certain attitudes has received some attention by researchers. For example, in the prejudice literature, it has been shown that interpersonal disgust sensitivity, or feeling "grossed out" towards "used" or public objects, items, or furniture predicted prejudice towards out-groups (Hodson & Costello, 2007). *Disgust sensitivity* is also the one emotional predisposition that has been linked to moral values in previous research.

Although contempt, anger, and disgust are all linked to the moral values, only disgust sensitivity, more commonly known in the emotion literature as *trait disgust*, has received significant attention as an individual difference variable which predicts moral foundation valuation (Haidt et al., 2009; Horberg et al., 2009; Rozin et al., 1999). Trait disgust is a general sensitivity towards experiencing disgust more easily and strongly towards "gross" stimuli, such as smells and sights (Haidt, McCauley, & Rozin, 1994; Horberg et al., 2009). Specifically, it has been found that trait disgust predicts increased valuation of the of the purity foundation, increased condemnation of purity vices, and increased praise of purity related virtues (Graham et al., 2009; Horberg et al., 2009)

These findings demonstrate that disgust has a clear link to the purity foundation, both from the bottom-up (trait disgust predicts purity values) and the

top-down (purity violations elicit disgust) (Haidt et al., 2009; Horberg et al., 2009; Rozin et al., 1999). Might it be the case that this pattern holds true for *trait contempt* as well? That is to say, if contempt is elicited by violations of the loyalty and authority foundations (top-down), might it also be the case that trait contempt predicts increased valuation of the loyalty and authority foundations (bottom-up) (Rozin et al., 1999)? This appears to be a gap in the moral emotion literature.

A Gap in the Literature: Trait Contempt as a Predictor of Loyalty and Authority Foundation Valuation

If trait contempt follows a model similar to disgust sensitivity, it should be the case that high levels of trait contempt predict several things. First, just as trait disgust predicts increased valuation of the purity foundation (Haidt et al., 2009; Horberg et al., 2009), it should be the case that trait contempt predicts increased valuation of the in-group/loyalty and authority/respect foundations. This is because violations of these two foundations, based on the ethic of community, elicit contempt (Rozin et al., 1999). This proposed link between trait contempt and moral values seems to represent a gap in the moral emotion literature. It appears that no published study has investigated the relation between trait contempt and Shweder's three ethics, Moral Foundations Theory, or any other theory relating to moral values, attitudes, or judgment. Thus, a study which investigates the relations between trait contempt and the loyalty and authority foundations should prove to be a unique contribution to the moral emotion literature.

In order to test the potential relation between trait contempt and the loyalty and authority foundations, a trait contempt instrument and a solid theoretical background of trait contempt as a construct are needed. Unfortunately, there are to two problems. First, there appears to be only one trait contempt instrument in the literature (Izard et al., 1993), which may be outdated in light of more recent literature regarding the nature of contempt (e.g. Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Mackie et al., 2000). Second, there does not appear to be a detailed definition or explanation of trait contempt as a construct within the emotion or personality literature. Indeed, trait contempt appears to have received very little attention from researchers.

Trait contempt remains ill-defined and under-researched. There have only been a handful of references to the construct of trait contempt in the general psychology literature. A developmental study associated trait contempt with an avoidant attachment style, and relatively lower accuracy in identifying joyful facial expressions (Magai, Distel, & Liker, 1995). Crowley (2013) recently studied trait contempt *expression*, or the tendency to openly express verbal scorn towards others, and its relation to individual well-being and attachment. However, it seems to be the case that Crowley's study was concerned only with the *expression* of contempt, rather than the basic tendency to experience it more frequently and easily compared to others (2013). The most significant and relevant work on contempt as an individual difference was done by Izard (1972). Izard (1972) created a differential emotion scale (DES) which included contempt

items, and created an updated version of this scale two decades later (Izard et al., 1993).

Unfortunately, contempt has had a history of conflicting definitions and classifications, and remained ill-defined within the literature for many decades (Haidt, 2003). It is only somewhat recently that contempt has begun to receive an increased amount of attention in the literature, and this literature has significantly expanded the application, scope, and definition of contempt as an emotion (e.g. Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Mackie et al., 2000). Specifically, this literature has provided an increased understanding of contempt's elicitors, affective experience, associated cognitions, and action tendencies (Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Mackie et al., 2000). Many of these elements are not reflected in Izard's instrument (Izard et al., 1993). As such, it may be the case that Izard's instrument is out of date, and may not accurately represent the full scope and nature of trait contempt (Izard et al., 1993).

Defining and measuring trait contempt: a gap in the literature. In light of the sparse coverage of trait contempt in the literature, several concepts must be looked at in depth before attempting to examine the link between trait contempt and moral values. Trait contempt as a construct needs to be thoroughly defined, and this definition must incorporate more recent findings on the nature of contempt (e.g. Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Mackie et al., 2000). Additionally, a new trait contempt instrument which reflects these recent findings needs to be developed. However, in order to more thoroughly define trait contempt as a construct, and subsequently develop a new trait

contempt instrument, several areas of the emotion and personality literature must first be reviewed. First, several fundamental characteristics of emotion must be reviewed, so that they can be used at a later point to define and describe contempt in functional terms.

The Functional Features of Emotion

Emotion can be described through the adaptive, relational, and social functions they serve (Ekman, 1992, 1999; Izard, 1977; Haidt & Keltner, 1999; Frijda, Kuipers, & ter Schure, 1989; Tooby & Cosmides, 1990). Tooby and Cosmides (1990) described emotions in evolutionary terms, in that they function as a way to quickly interpret and respond to situations of common adaptive relevance. Frijda and colleagues described emotions in terms of their functions, particularly in regards to their involving "states of action readiness, elicited by events appraised as emotionally relevant," with different states being brought about by different appraisals regarding harm or help towards an individual's "major goals, motives, and sensitivies" (Fridja, Kuipers, & ter Schure, 1989, p. 213). Additionally, Frijda proposed that these states tend to trigger specific adaptive and "prewired" behavioral tendencies, physiological responses, and "learned behaviors" (Frijda et al., 1989, p. 213). Ekman describes the primary function of emotion as an adaptive way to "deal with inter-organismic encounters," or "deal quickly with interpersonal encounters, prepared to do so by what types of activities have been adaptive in the past ," both in "the past history of our species… and what has been adaptive in our own individual life history" (1990, p. 46).

In all of these cases, emotion's functional characteristics are essentially described as fast and mostly involuntary responses to the social environment (Haidt, 2003; Haidt & Keltner, 1999). These responses are mechanisms which assist individuals in quickly assessing, navigating, and responding to this social environment in adaptive ways (Ekman, 1990; Frijda et al., 1989; Haidt, 2003; Haidt & Keltner, 1999; Tooby & Cosmides, 1990). Thus, in many respects, emotions may serve the function of "regulating social behavior" of both the self and others (Weiner, 2006, p. 86). Thus, in the case of moral emotions, such as contempt, anger, or disgust, it would follow that each emotion serves a unique social function, both for the person experiencing the emotion and for those at whom the emotion is directed (Haidt & Keltner, 1999).

The studies in this thesis will be operating under several widely held (albeit debated) assumptions about the nature of emotion. First, it is assumed that there are a number of emotions which are universal, discrete, and distinct from each other – known as *basic emotions* (Ekman, 1992; Ekman, 1994a; Izard, 1977). Second, it is assumed that these discrete, basic emotions are triggered by different types of cognitive appraisals, or *elicitors* (Ellsworth & Smith, 1988; Lazarus, 1991a; Roseman, Spindel, & Jose, 1990; C. A. Smith & Ellsworth, 1985). Third, it is assumed that experiencing these discrete, basic emotions tends to promote specific behavioral tendencies, or *action tendencies* (Frijda, Kuipers, & ter Schure, 1989; Roseman, Wiest, & Swartz, 1994). Fourth, it is assumed that each of the basic emotions has a unique and universally identifiable facial expression associated with it (Ekman, 1992; Ekman & Friesen, 1975). Fifth, it is

assumed that different basic emotions tend to cue specific types of cognition: examples of such associated cognitions include thoughts, memories, schemas, or intuitions (Izard et al., 1993). Finally, it is assumed that contempt, anger, and disgust fit these criteria, and are all discrete basic emotions with unique elicitors, action tendencies, associated cognitions, and facial expressions (Ekman & Heider, 1988; Haidt, 2003; Hutcherson & Gross, 2011; Izard, 1977; Izard et al., 1993; Rozin et al., 1999).

There are opposing views on whether these three hostile emotions – contempt, anger, and disgust – are indeed discrete or basic emotions with unique expressions, elicitors, and action tendencies. Some researchers have conflated contempt and disgust (Beaumont & Wagner, 2004; Fiske, Cuddy, Glick, & Xu, 2002; Russell, 1991b). Similarly, others have challenged the contempt facial expression as being unique (Russell, 1991b; Wagner, 2000). Additionally, some have described models of emotion other than a basic/discrete emotion model (e.g. Barrett, 2006; Lutz & White, 1986; Wierzbicka, 1992). Unfortunately, it is outside the scope of this thesis to discuss these opposing views in depth. However, to account for these alternate views on emotion, methodological steps will be taken to demonstrate that contempt is indeed distinct from anger and disgust.

The essential features for the study of moral emotions. Researchers analyze many different features of emotion, such as elicitors, facial expression, physiology, subjective experience, associated cognition, and action tendencies (e.g. Frijda, 1986; Haidt, 2003; Izard et al., 1992, 1993; Russell, 1991a). Of these,

elicitors, action tendencies, and associated cognitions are the three features of emotion which are most relevant to analyzing and explaining morality (Haidt, 2003). Elicitors and action tendencies are highly relevant to morality because these are the most externally oriented aspects of emotion; they are most closely related to an individual's reaction and response to the behavior of other individuals (Haidt, 2003). Methodologically, elicitors and action tendencies are perhaps the most measurable aspects of moral emotions, at least given the limits of survey studies (Haidt, 2003; Rozin et al., 1999). The associated cognitions of an emotion are also highly relevant to morality, as these are likely the building blocks of more deliberate and conscious judgments, values, and attitudes (Haidt & Joseph, 2004; Izard et al., 1993). In regard to elicitors, moral emotions are somewhat unique in that they are easily elicited, even when the eliciting event has no self-relevance (Haidt, 2003). Moral emotions tend to have some of the most pro-social action tendencies, in that they put an individual into a motivational state with an increased desire to engage in actions (often untaken), which either benefit others, or which maintain, uphold, or benefit society or the social order (Frijda, 1986; Haidt, 2003).

Contempt

Before trait contempt can be studied and assessed, a fundamental question must be answered: what *is* contempt? Surprisingly, this is not a simple task. Contempt has proven to be difficult to define in concrete and easily accessible terms (Haidt, 2003). The American Heritage Dictionary defines the emotion of contempt as "the feeling with which a person regards anything considered mean,

vile, or worthless; disdain; scorn" (2013). Unfortunately, this type of definition is vague and abstract. Additionally, contempt and its synonyms, such as disdain and scorn, are not frequently used in everyday speech. This vagueness has hindered previous academic definitions as well: contempt has sometimes been defined in terms of what it is *not*. For example, Izard (1977) described contempt as a hostile but "cool" emotion, much more subtle than the intensity of anger or the revulsion of disgust. And indeed, contempt's somewhat obtuse and abstract definitions reflect a problematic and confused history for this emotion, both for researchers and laypersons.

Conflicting classifications of contempt by past researchers. Within the emotion literature, it is difficult to find a clear, concise, and accessible definition of contempt. And indeed, even today, definitions of contempt are still somewhat nebulous in nature (Hutcherson & Gross, 2011). In part, this is largely because contempt has received very little attention from researchers, relative to anger or disgust (Haidt, 2003). More importantly, the history of the contempt literature has featured significant disagreement and conflicting findings between researchers (Haidt, 2003; Hutcherson & Gross, 2011). Some researchers had described contempt as a blend between anger and disgust (Plutchik, 1980), or as a member of the anger family (Lazarus, 1991b). Ekman and Friesen had originally defined contempt as a type of disgust (1975).

However, more recent research has done much to differentiate contempt as a distinct emotion. For instance, Ekman and colleagues eventually changed their minds, and upgraded contempt to a "basic" emotion, largely because the contempt

facial expression, a unilateral curl and tightening of the lip, is reliably recognized across a multitude of cultures (Ekman & Friesen, 1986; Ekman & Heider, 1988). Similarly, although there is still some dispute about the nature of contempt (e.g. Nabi, 2002; Russell, 1991b), findings have begun to converge within more recent research, indicating there are several key characteristics of contempt (e.g. Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Rozin et al., 1999). One of the main reasons recent contempt research has begun to converge is due to increasing recognition that contempt is best measured through indirect, rather than direct means (Haidt et al., 2003). Specifically, this is because participants and laypersons in general often do not know what contempt *is* (Haidt, 2003).

A significant confound: semantic confusion over contempt in participants. Past research has shown a history of difficulty in assessing contempt, as well as a history of inconsistent findings (Fisher & Roseman, 2007; Haidt, 2003). Specifically, attempts to directly assess contempt, such as asking participants to label, rate, or report on items or stimuli using the word "contempt," have often led to inconsistent or null findings (Fisher & Roseman, 2007; Haidt, 2003). Oddly, this problem appears to be due to a quirk of the English language (Haidt, 2003). English-speaking participants in particular seem to have difficulty accurately identifying or describing contempt when dependent measures use the word "contempt" itself (Ekman, O'Sullivan, & Matsumoto, 1991; Haidt, 2003; Haidt & Keltner, 1999; Matsumoto, 1992; Rozin et al., 1999). In contrast, non-English speaking participants semantically differentiate and identify contempt from other emotions with substantially higher accuracy (Ekman et al., 1991;

Haidt, 2003; Haidt & Keltner, 1999; Matsumoto, 1992; Rozin et al., 1999). Thus, it would seem that contempt is sometimes not semantically distinguished from anger or disgust in everyday English (Fisher & Roseman, 2007; Haidt, 2003).

Fortunately, studies with English-speaking participants have successfully distinguished contempt from other emotions when contempt was assessed through more indirect methodologies (Haidt, 2003). Some of these studies had participants generate their own contempt elicitors (Fischer & Roseman, 2007; Haidt & Keltner, 1999). Several other studies had dependent variables which described contempt's associated cognitions, such as judgments of inferiority, rather than the word "contempt" itself (Izard et al., 1993; Hutcherson & Gross, 2011). Other studies had participants match a picture of the contempt expression to a story or scenario (Rosenburg & Ekman, 1995; Rozin et al., 1999). With these findings in mind, it is clear that any items developed for a new trait contempt instrument should use indirect assessments, rather than directly measuring self-reported "contempt" or any of its synonyms.

Assessing contempt via its unique facial expression. The contempt expression will be used as a potential indirect assessment of trait contempt in one of the studies outlined in this thesis. As such, the specifics of the contempt expression must be reviewed. Contempt has a unique facial expression, which is recognized across cultures (Ekman & Friesen, 1986). In simple terms, the contempt expression can best be described as a unilateral smirk (Ekman & Friesen, 1986; Ekman & Heider, 1988; Rozin et al., 1999). More specifically, the contempt expression is characterized by Ekman's action unit 14 - a unilateral raise

and tightening of the lip (Ekman & Heider, 1988). For several examples of the contempt expression, see *Figure 1*.

It should be noted, however, that there are some researchers who have challenged the uniqueness of the contempt expression. In some studies, the contempt expression has been confused with the anger, disgust, or "neutral" expressions by participants around 30 to 40 percent of the time (Russell, 1991b; Shioiri, Someya, Helmeste, & Tang, 1999; Wagner, 2000). Some of this confusion may be due, in part, to the contempt expression being relatively subtle compared to the anger and disgust expressions. The muscle movements are on only one side of the mouth (which can be confused with smiling), and lack activity around other areas of the face such as the nose (such as with disgust) or eyebrows (such as with anger) (Ekman & Friesen, 1978). However, a more significant problem is that researchers have used differing criteria for what constitutes the contempt expression, such as using different Ekman action units (Ekman et al., 1991; Rozin et al., 1999). Additionally, it should be noted that, in general, participants are seldom perfectly consistent in labeling any facial expression with the appropriate emotion name: it is relatively rare to find studies which have participant agreement of over 80% for any given facial expression that is not extreme or exaggerated (Ekman et al., 1991; Hutcherson & Gross, 2011; Rozin et al., 1999).

Importantly, most of the studies with these contentious findings asked participants to use the word "contempt" to label expressions, which of course falls prey to the major semantic confounds related to the word (Haidt, 2003;

Hutcherson & Gross, 2011). Given that the contempt expression has been shown to be reliably recognized across multiple cultures, and most contentious studies used English-speaking participants, it seems particularly likely that the semantic confounds of contempt may be the main source of conflicting findings on the universality of the contempt expression (Ekman & Friesen, 1986; Ekman & Heider, 1988; Fischer & Roseman, 2007; Haidt, 2003; Hutcherson & Gross, 2011; Russell, 1991b).With this in mind, images of the contempt expression should indeed prove to be an effective tool for assessing contempt (Haidt, 2003; Rosenburg & Ekman, 1995; Rozin et al., 1999).

In acknowledgement that there has been some contention about the universality of the contempt expression, several steps should be taken when using a face matching task as a methodology. Because some researchers have used different action units for the contempt expression in the past, it is particularly important to select an appropriate photoset for facial expression stimuli (Ekman & Heider, 1988; Ekman et al., 1991; Rozin et al., 1999). As such, choosing a pre-existing, well validated, and standardized photoset, such as Matsumoto and Ekman's Japanese and Caucasian Facial Expressions of Emotion (1988) should be the most ideal. Specifically, using a standardized and validated photoset should be preferable to creating an original photoset, or using stimuli from studies which created their own photosets. Additionally, because even successful studies show double digit error rates in correctly labeling emotion expressions (Rozin et al., 1999), it may be best to use facial expression photos which do not feature subtle

expressions. Rather, facial expression rating tasks might be most effective when the photos of facial expressions feature more pronounced and severe expressions.

Defining contempt via its fundamental characteristics. Keeping in mind the semantic difficulties surrounding contempt, one particularly effective strategy in defining, describing, and operationalizing contempt may be to break it down into several key characteristics. Specifically, this thesis proposes that because contempt is not very accessible semantically, it may best be described in terms of its characteristics: its elicitors, associated cognitions, action tendencies, and affective experience. Based on the findings of the recent contempt literature, I propose that the process of feeling contempt appears to have five key characteristics.

Contempt's five key characteristics. By synthesizing the recent contempt literature, and by incorporating the functionalist theory of emotion as a framework (Haidt & Keltner, 1999), five key features have begun to emerge across different types of studies. First, contempt is elicited via the perception that an individual has violated *some sort social standard, expectation, or ideal.* It may also be elicited by the judgment that someone has not "measured up" to some social standard, expectation, or ideal (Bell, 2005; Haidt, 2003; Mason, 2003). Second, a fundamental associated cognition of contempt is a *sense of superiority*, disapproval, or otherwise "looking down" on the target of contempt, at least along the dimension of the social standard being violated (Bell, 2005; Ekman, 1994b; Haidt, 2003; Hutcherson & Gross, 2011; Izard, 1977; Mackie, Devos, & Smith, 2000; Mason, 2003). Third, another essential cognition associated with contempt

is that it involves *negative dispositional attributions*, or negative judgments about the inferiority of a person's fundamental internal characteristics – not merely their specific behaviors (Bell, 2005; Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Mason, 2003). Fourth, contempt has *socially aversive and derogatory action tendencies*, characterized by a desire or tendency to reject, exclude, or ostracize, derogate, and psychologically and emotionally withdraw from the target (Fischer & Roseman, 2007; Mackie et al., 2000; Mason, 2003; Roseman, Copeland, & Fischer, 2003; Roseman, Wiest, & Swartz, 1994). Finally, the subjective experience of contempt is best characterized as *cold feelings of dislike coupled with psychological distancing* (Bell, 2005; Fischer & Roseman, 2007; Haidt, 2003). In general terms, this refers to a relatively low-intensity feeling of dislike, combined with a loss or lack of warmth, respect, empathy, and/or intimacy towards the target of contempt (Bell, 2005; Fischer & Roseman, 2007; Haidt, 2003). And indeed, cold feelings of dislike combined with a loss of warmth, empathy, and respect may provide an ideal, practical and accessible definition of contempt for everyday speech. With these five key characteristics in mind, contempt can be described in a more comprehensive fashion.

Violations of social standards, expectations, or ideals. The first key characteristic of contempt concerns the way that it tends to be elicited. In broad terms, contempt is elicited via the perception that some sort of social standard, expectation, or ideal has been violated, or by judgments of someone not "measuring up" to such social standards (Bell, 2005; Haidt, 2003; Mason, 2003). In other words, contempt tends to be elicited when someone's behavior violates

one's *minimum expectations* of what that person's behavior *should be* like. These standards can be universal and applicable to all people, such as expectations of honesty, responsibility, or intelligence; however, more often these standards relate to the target's specific social role, social status, or social context (Fischer & Roseman, 2007, Hutcherson & Gross, 2011; Miller, 1997). For instance, contempt has been found to be especially linked with perceptions of *incompetence*: an inability to meet even basic expectations or standards within a given role or context (Hutcherson & Gross, 2011). Similarly, contempt has been linked with violations of social expectations such as rules and norms – particularly those which negatively affect the cohesion of relationships, groups, or communities (Fischer & Roseman, 2007; Rozin et al., 1999).

Contempt is easily felt towards strangers or impersonal third parties with whom one does not have a relationship. Contempt can be elicited from even a single event or behavior (Fischer & Roseman, 2007; Hutcherson & Gross, 2011). More personal or direct relationships are somewhat resistant to contempt, but when it does occur, contempt tends to be elicited when someone's behavior *routinely* does not live up to one's minimum expectations of what a person in that role (such as spouse, friend, employee, employer, etc.) should be like (Bell, 2005; Fischer & Roseman, 2007; Gottman, Woodin, & Levenson, 2001). The reason contempt is more easily felt towards third parties than personal relationships is that contempt tends to be elicited when one has the perception of *no control* over the target's behavior (Fischer & Roseman, 2007). This also explains why contempt is most likely to develop towards personal relations who *routinely* fail to

live up to expectations – because this signifies a lack of control over the person's behavior (Fischer & Roseman, 2007).

A sense of superiority. Another key feature of contempt is that it involves a *sense of superiority*, disapproval, an inferiority judgment, or "looking down" on the target of contempt, at least along the dimension of the social standard being violated (Bell, 2005; Ekman, 1994b; Haidt, 2003; Hutcherson & Gross, 2011; Izard, 1977; Mackie, Devos, & Smith, 2000; Mason, 2003). That is to say, when contempt is elicited from a social standard being violated, a fundamental condition is that the person feeling contempt perceives that *they personally live up to that standard* (Hutcherson & Gross, 2011). The traditional connotation of this sense of superiority is that it is *downward* in nature, or felt towards those deemed lower in worth, status, or hierarchy (Miller, 1997). However, contempt can also be felt *upward*, towards those of higher status or power who are seen as unworthy of their position (Miller, 1997).

Negative dispositional attributions. Another one of contempt's key associated cognitions is *negative dispositional attributions*, or negative judgments about the inferiority of a person's *stable internal characteristics*, and not merely their specific behaviors (Bell, 2005; Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Mason, 2003; Weiner, 2006). Contempt is person-centric, rather than behavior-centric (Fischer & Roseman, 2007; Weiner, 2006). As such, the negative dispositional attributions of contempt tend to promote permanent attitude changes towards the target, and these attributions are particularly related to the perception that the target is unable or unwilling to change (Fischer & Roseman, 2007). In

keeping with both negative dispositional attribution and a sense of superiority, judgments associated with *incompetence*, such as attributing behaviors to stupidity, carelessness, ignorance, or irresponsibility are particularly likely to be associated with contempt (Hutcherson & Gross, 2011; Weiner, 2006).

Aversive and derogatory action tendencies. Contempt has several types of action tendencies. Specifically, contempt has an aversive or avoidant action tendency, i.e., it prompts a desire to reject, socially exclude, ostracize, shun, or ignore the target (Fischer & Roseman, 2007; Mackie et al., 2000; Mason, 2003; Roseman, Copeland, & Fischer, 2003; Roseman, Wiest, & Swartz, 1994). This action tendency applies to contempt towards both individuals and groups (such as out-groups) (Fischer & Roseman, 2007; Mackie et al., 2000). While there are other emotions with aversive action tendencies, such as disgust or fear, contempt seems to be unique in that it is heavily characterized by a tendency to *socially, psychologically*, and *emotionally withdraw* from the target, rather than simple physical withdrawal (Fischer & Roseman, 2007; Haidt, 2003). Contempt has also been linked with a desire to derogate, belittle, or disparage the target (Fischer & Roseman, 2007). However, in keeping with its avoidant action tendencies, contempt is negatively correlated with *direct* verbal attack; rather, any such derogation is typically done behind the back of the target (Fischer & Roseman, 2007). With this is mind, it seems especially likely that contempt may be one of the primary emotions involved in gossip (Haidt, 2003).

Cold feelings of dislike with psychological distancing. In terms of contempt as an experience, it may best be characterized by c*old feelings of dislike with*

psychological distancing, or a loss or lack of warmth, respect, empathy, and/or intimacy towards the target (Bell, 2005; Fischer & Roseman, 2007; Haidt, 2003, Miller, 1997). When felt towards third parties or impersonal relations, contempt typically involves an indifference towards the target's wellbeing, feelings, or circumstances. In other words, contempt elicits psychological distancing combined with a disregard for any situational attributions for the disliked behaviors (Miller, 1997). Towards more personal or intimate relations, contempt tends to cause the person feeling contempt to view the relationship as less intimate, and repeated feelings of contempt typically lead to the deterioration of the relationship (Fischer & Roseman, 2007; Gottman, Woodin, & Levenson, 2001). Additionally, the cold feelings and psychological distancing of contempt tends to be chronic, and it often involves permanent negative changes in perceptions or beliefs about a person (Fischer & Roseman, 2007; Frijda & Mesquita, 1994). Similarly, contempt's cold feelings and psychological distancing are difficult to change. The person feeling contempt often has little or no desire to reconcile with the target, and when targets attempt to reconcile or apologize, it often does not help alleviate the feelings of contempt (Fischer & Roseman, 2007; Hutcherson & Gross, 2011; Mason, 2003).

What is a Trait Emotion?

Before defining and describing *trait contempt*, the concept of *trait emotions* must first be defined. In broad terms, trait emotions are individual differences in the tendency to experience a specific emotion more easily and intensely than average – along with that emotion's associated cognitive and behavioral

tendencies (Izard et al., 1993). Subsequently, these differences in emotionality manifest into the development of distinct patterns of emotion, cognition, and behavior, characterized by elements of the emotion in question (Izard et al., 1993). There are several key features in the development and makeup of a trait emotion. First, every individual has differing *activation thresholds* for each basic emotion (Izard et al., 1993). Trait emotions are characterized by a *low* activation threshold for the emotion in question (Izard et al., 1993). An individual with a low activation threshold for a specific emotion will experience that emotion much more *easily, frequently, and intensely* than those with higher thresholds (Izard et al., 1993). Additionally, individuals who experience an emotion more easily, frequently, and intensely are also subject to *selective perception*, or an increased awareness of stimuli related to the specific emotion (Izard et al., 1993). Increased frequency of occurrence and selective perceptions related to an emotion will also lead to experiencing cognitions associated with the emotion more frequently (Izard et al., 1993). When an individual frequently experiences an emotion along with its selective perceptions and its associated cognitions, this subsequently leads to an increased tendency towards behaviors and actions related to that emotion (Izard et al., 1993).

This combination of increased activation, perception, cognition, and behavioral tendencies leads to the development of distinct patterns called “emotion-cognition-action bonds,” which, in aggregate, can be referred to as personality traits (Izard et al., 1993, p. 843). In sum, these personality traits are called *trait emotions* (Izard et al., 1993; Kassinov et al., 2002; Spielberger, 1996). Put more

simply, because each basic emotion uniquely affects one's cognition, perceptions, and actions, those who rate highly on a specific trait emotion will show specific patterns of cognition, perception, and action based around the emotion in question (Izard et al., 1993).

Defining Trait Contempt. Very little has been written or researched in depth about the makeup of trait contempt. Izard et al. (1993) operationalized trait contempt primarily in terms of frequently feeling superior and making negative attributions to others in one's day to day life. Crowley (2013) described trait contempt *expression*, or the tendency to frequently express contempt towards others, as primarily characterized by interpersonal coldness and a tendency to express verbal dislike or disapproval towards others. Beyond this, it appears that trait contempt has not been described in considerable detail. However, given that contempt's elicitors, associated cognitions, and action tendencies have become clearer, and given the defining characteristics of trait emotions, it should now be possible to construct a more comprehensive description of trait contempt which incorporates more recent findings from the contempt literature.

With this in mind, a newer model of trait contempt will be proposed that synthesizes the key characteristics of contempt, major elements of the functionalist model of emotion, and the general model of trait emotions. In accordance with the general model of trait emotions, this means that trait contempt should be characterized by a lower activation threshold of contempt, or a tendency to experience *cold feelings with psychological distance* towards others more easily, frequently, and intensely than normal (Haidt, 2003; Izard et al., 1993;

Fischer & Roseman, 2007). Trait contempt should also be characterized by an increased prevalence of contempt-related selective perceptions, specifically *increased awareness of social standard violations* (Bell, 2005; Haidt, 2003; Izard et al., 1993). Additionally, trait contempt should be characterized by more frequent contempt-related cognitions; specifically, a *general sense of superiority* and *frequent negative dispositional attributions* (Fischer & Roseman, 2007; Haidt, 2003; Hutcherson & Gross, 2011; Izard et al., 1993). And finally, trait contempt should be characterized by more frequent contempt-related action tendencies; in particular, an *increased tendency to reject, avoid, and derogate social standard violators* (Fischer & Roseman, 2007; Izard et al., 1993; Mackie et al., 2000).

Rationale

Several research and analytical strategies can be used in order to assess the relation between trait contempt and the loyalty and authority foundations. Due to gaps in the literature related to moral emotions, trait emotions, and contempt, several phenomena must be investigated in addition to the main research question in order to thoroughly analyze the link between trait contempt and moral values. First, the proposed five key features of contempt must be validated as constructs, and a new trait contempt instrument based on these features must be developed and tested. Second, because two indirect assessment methodologies show promise (facial expression matching and assessing contempt's key components), both should be employed to assess trait contempt and its relation to loyalty and authority values (Izard et al., 1993; Rozin et al., 1999). Finally, the assumed links

between the CAD model and the five moral foundations must be empirically tested (Alderman et al., 2010; Haidt et al., 2009; Rozin et al., 1999). With this large number of additional concepts to investigate, the use of two studies seems to be the most appropriate approach to thoroughly investigate the main research questions.

Testing the internal consistency and cohesiveness of the five key characteristics of contempt. Although the contempt literature has begun to converge in regards to its common characteristics, it appears that no published study has explicitly investigated the cohesion between the five elements of contempt within the same dataset. Thus, as the new trait contempt instrument is based on these five key elements, it appears necessary to test the proposed cohesion of these key elements, in addition to the development of the trait contempt instrument. As such, it seems appropriate to accomplish this across two studies. Specifically, it would be ideal to develop a very broad instrument for Study 1 in order to test for cohesion, consistency, and construct validity, and then create and utilize the more refined and effective trait contempt instrument (following analyses of study 1) for Study 2.

Two indirect methodologies for assessing contempt and trait contempt. As previously mentioned, there are significant methodological issues surrounding the measure of contempt. This is because participants often do not understand the meaning of the word “contempt” and may not find the emotion very accessible (Haidt, 2003; Fischer & Roseman, 2007; Rozin et al., 1999). There are two potential solutions to this methodological issue. First, contempt,

and subsequently trait contempt, might be accurately measured indirectly by means of assessing contempt's elicitors, associated cognitions, action tendencies, and affective experiences (Izard et al., 1993). Second, methodologies that assess contempt by means of matching photos of facial expressions to a story were also particularly successful in distinguishing contempt from other emotions (Rosenburg & Ekman, 1995; Rozin et al., 1999). Thus, it seems prudent to use the former methodological strategy in Study 1, and the latter methodological strategy in Study 2.

Empirically testing the CAD model's application to the five moral foundations. Although it has been assumed that the CAD model applies to the five moral foundations, this has not been explicitly empirically tested in any published study (Alderman, 2010; M. Brubacher, personal communication, July, 2013). Although previous studies have found that purity violations elicit disgust, it appears that no study has empirically tested whether harm and fairness violations elicit anger, and whether loyalty and authority violations elicit contempt (Graham et al., 2009; Horberg et al., 2009). These proposed relations are essential to the main research question of this thesis. Therefore, it is necessary to empirically test these relations.

Study 1

Study 1 was designed to accomplish several goals. The foremost goal was to develop, refine, and utilize a contemporary trait contempt instrument, and to test the cohesiveness and internal consistency of the proposed five key characteristics of contempt that make up that instrument. In order to demonstrate

discriminant validity of the trait contempt instrument, measures of trait anger and trait disgust were included in the study. In order to demonstrate convergent validity, two alternative trait contempt instruments were included in the study. The Moral Foundations Questionnaire (Graham et al. 2011) was included in order to test the relation between trait contempt and the loyalty and authority foundations. Finally, items assessing political ideology and reciprocity valuation (in isolation from fairness valuation) were also included in the study for the purposes of future publications. However, these measures were not included within this study's analyses.

Hypotheses

Hypothesis I. Through the use of an exploratory factor analysis, it is predicted that items from each of the trait contempt subscales will load onto separate factors with high internal consistency. This would demonstrate construct validity for each of the subscales.

Hypothesis II. It is predicted that all factors which emerge from the testing of Hypothesis I will contribute to an overall latent variable called trait contempt. This would demonstrate construct validity for the latent trait contempt construct.

Hypothesis IIIa. It is predicted that this study's trait contempt instrument will have discriminant validity from both the trait anger and trait disgust scales.

Hypothesis IIIb. It is predicted that this study's trait contempt instrument will have convergent validity with the two alternative trait contempt instruments.

Hypothesis IV. It is predicted that trait contempt will be a stronger predictor of loyalty and authority foundation valuation than both trait anger and trait disgust.

Hypothesis V. It is predicted that this study's trait contempt instrument will be a stronger predictor of loyalty and authority foundation valuation than both of the alternative trait contempt instruments.

Method

Study 1 used a correlational design. All participants took an online survey including instruments that assess trait contempt, trait disgust, trait anger, valuation of the five moral foundations (plus reciprocity items), political ideology, and demographics.

Participants

Participants were recruited via Amazon's Mechanical Turk (N = 614), an online service that enables researchers to pay participants a small fee to take surveys. They had a mean age of 34.29 *(SD* = 13.18). Participants were 33.6% male, 56.2% female, and 10.2% did not report their gender. In regard to race and ethnicity, 72% were Caucasian, 9.9% were African American, 7.7% were Asian, and 5.2% were Hispanic or Latino/a.

Procedure

Due to the nature of M-Turk, participants self-select which studies or tasks they wish to take part in. Participants were offered $0.20 in exchange for their time. The link to the study was titled, "Morality and personality survey: how does

your psychology inform your values?" and the description text read "take a 20 minute survey about your emotions, attitudes, and moral values."

Upon clicking the study link, participants were brought to an online survey designed on Qualtrics. On the first page of the survey, participants were briefed and gave informed consent. The briefing described the study as a survey about emotions and attitudes that will take approximately 20 minutes of their time, and it informed participants of their rights as a research participant.

Through the course of the survey, participants completed five different trait emotion instruments: trait anger, trait disgust, trait empathy, and two for trait contempt. These trait emotion instruments consisted of statements describing thoughts, feelings, or behaviors, and participants rated how frequently or how strongly each item applied to them. Participants also completed the Moral Foundations Questionnaire (MFQ), which features questions about moral values, half of which consist of general abstract statements, and half of which are concrete questions pertaining to specific issues (Graham et al., 2011). All of these instruments were completed one at a time.

In order to provide counterbalancing, participants took these instruments in a random order. Half of the participants took the Moral Foundations Questionnaire first, and half took the four trait emotion instruments first. Additionally, the order of the four trait emotion instruments was randomized to provide for further counterbalancing. Due to the length of the survey, attention check items were also included, in order to screen for participants who were inattentive. Finally, participants completed a demographics section, which

included items that assess political ideology, socioeconomic status, race/ethnicity, gender, education, and age. At the end of the survey, participants viewed a debriefing page that explained the purpose of the study.

Materials

Trait contempt instrument. For the full content of the trait contempt instrument, see Appendix A. The instrument had 56 items total, and was comprised of seven subscales, with eight items each. All items were measured on 7-point scales. Scales assessing frequency were rated from 1 (almost never) to 7 (almost always). Scales assessing agreement were rated from 1 (strongly disagree) to 7 (strongly agree).

The seven subscales of this instrument related to the five key features of contempt that were proposed in the literature review: increased awareness of social standard violations, frequent feelings of superiority, increased negative dispositional attributions, aversive and derogatory action tendencies, and frequent cold feelings with psychological distancing. Aversive and derogatory action tendencies were assessed using two separate subscales; cold feelings and psychological distancing were also assessed using two separate subscales.

Increased awareness of social standard violations subscale. The increased awareness of social standard violations subscale asked participants how often they notice social standard violating behaviors in their day-to-day lives. This subscale used frequency measurements. For example, participants rated how frequently they notice strangers or acquaintances “being inconsiderate” or “acting inappropriately.”

Frequent feelings of superiority subscale. The frequent feelings of superiority subscale assessed how frequently participants make inferiority judgments towards strangers and acquaintances in their day-to-day lives. This subscale used frequency measurements. For example, participants rated how often they notice others being "stupid," "incompetent," or "careless" in their day to day lives. Reverse-scored items used the antonyms of these terms.

Increased negative dispositional attributions subscale. The increased negative dispositional attribution subscale asked participants how often they make quick negative dispositional judgments about others during their day-to-day lives. This subscale used frequency measurements. For example, participants gave frequency ratings on items such as: ""I assume someone's bad behavior reflects something about their personality," "If someone is in a bad situation, I think that it's probably their own fault," and "I make efforts to give people the benefit of the doubt" (reverse scored).

Aversive and derogatory action tendencies subscales. Trait contempt's aversive and derogatory action tendencies were split into two different subscales. The aversive action tendency subscale asked participants how likely they are to socially reject or exclude social standard violators (i.e. social aversion). The derogatory action tendencies subscale asked how often participants engage in derogatory behaviors behind a person's back. Both subscales used frequency measurements. As an example of an aversive action tendency item, participants rated how frequently they "give someone the cold shoulder." As an example of a

derogatory action tendency item, participants rated how frequently they "talk about other peoples' bad qualities."

Cold feelings with psychological distance subscales. Trait contempt's affective experiences were split into two subscales. Both subscales used an agree-disagree scale. The frequent cold feelings subscale assessed how frequently participants have cold feelings of dislike towards others. For example, an item assessing cold feelings states "It doesn't take much for me to dislike someone." The frequent psychological distancing subscale assessed how often participants feel a loss of warmth, respect, and empathy towards others. For example, an item assessing psychological distancing states "It is easy for me to lose respect for a person."

Additional contempt instruments. In addition to the trait contempt instrument developed for this study, participants also completed several previously-developed items which assess contempt. Specifically, participants took the three items from Izard and colleagues' trait contempt scale (1993), and the nine items from Crowley's trait contempt expression scale (2013).

Izard's trait contempt scale. Izard and colleagues (1993) developed a short trait contempt instrument that assesses the tendency to experience contempt as a general temperament. In this instrument, participants are given the prompt, "in your daily life, how often do you…," and are asked to provide scaled ratings for three items (Izard et al., 1993, p. 851). These items are: "feel like somebody is a 'good for nothing'," "feel like you are better than somebody," and "feel like somebody is a low-life, not worth the time of day" (Izard et al., 1993, p. 851).

Crowley's trait contempt expression instrument. In addition to Izard's scale, I also included nine items from a trait contempt *expression* scale devised by Crowley (2013). Crowley's scale specifically assesses an individual's tendency to openly *express* contempt towards others. Crowley's scale features nine items. Six items assess the open expression of verbal disdain, such as "When I feel dislike or hate for someone, I usually express it" (pg. 22). The other three items assess interpersonal coldness, such as "I consider myself to be a very cold person" (p. 22).

Trait anger and trait disgust scales. In order to demonstrate discriminant validity of the trait contempt instrument, participants also took two short instruments assessing trait anger and trait disgust; these instruments have five items in total. Both the trait anger and trait disgust scales included in this study were directly taken from the updated differential emotion scale (DES), created by Izard et al. (1993).

The DES trait anger scale. The DES trait anger scale assesses anger-proneness as a general temperament (Izard et al., 1993). The trait anger scale features three items. Participants were asked how often they experience the following in their daily lives: "feel like screaming at somebody or banging on something," "feel angry, irritated, annoyed," and "feel mad at somebody" (Izard et al., 1993, p. 851). These items were rated using a 7-point scale, ranging from 1 (very rarely) to 7 (very frequently).

The DES trait disgust scale. The DES trait disgust scale featured two items, which assess a tendency towards experiencing non-social disgust easily

(Izard et al., 1993). Participants were asked how often they experience the following in their daily lives: “feel like something stinks, puts a bad taste in your mouth,” and “feel disgusted, like something is sickening” (Izard et al., 1993, p. 851). These items were rated using a 7-point scale, ranging from 1 (very rarely) to 7 (very frequently).

Moral Foundations Questionnaire. The Moral Foundations Questionnaire (MFQ) assesses five moral dimensions, or “foundations”: harm/care, fairness/reciprocity, in-group/loyalty, authority/respect, and purity (Graham et al., 2011). The questionnaire features 32 items in total, and consists of two sections with 16 items each. Each section contains 15 items related to the moral foundations (three items per foundation), along with one attention check item (Graham et al., 2011). In total, this instrument gives six scores for each moral foundation. These six scores are used to calculate means for each of the five foundations (Graham et al., 2011).

The first section of the MFQ features abstract or general statements related to each of the five moral foundations, and asks people to rate how relevant these concepts are in deciding whether something is right or wrong (Graham et al., 2011). For example, one statement for the fairness foundation reads, “Whether or not some people were treated differently than others” (Graham et al., 2011, p. 385). These items are rated on a 7-point scale, from 1 (not at all relevant) to 7 (extremely relevant) (Graham et al., 2011). The second section assesses more concrete and specific statements. For example, one statement for the harm foundation reads, “One of the worst things a person could do is hurt a defenseless

animal" (Graham et al., 2011, pp. 385). The items are rated on a 7-point scale, from 1 (strongly disagree) to 7 (strongly agree) (Graham et al., 2011).

Reciprocity valuation items. For the purposes of future publications, six new items were created and included within the MFQ portion of the survey. These items specifically assessed *reciprocity* valuation, in isolation from fairness valuation. The "general statements" section of the MFQ included three new reciprocity items, which used the same "whether or not someone…" format as the original MFQ (p. 385). These three items were "whether or not someone:" *cheated, paid their fair share*, and *gives more than they take* (p. 385). The "specific statements" section of the MFQ included three new reciprocity items, using several MFQ items as templates. These items were: "One of the worst things a person could do is" *ask others for help but never return the favor*, "When the government makes laws, the number one principle should be" *that people get rewards equal to the contribution they make*, and "I think it's morally wrong when" *a person does little while profiting off of someone else's hard work* (p. 385)

Demographics. The demographic section assessed income, race/ethnicity, education level, gender, and age. Participants completed several short items pertaining to political ideology, which used a 7-point scale from 1 (*very liberal)* to 7 (*very conservative*). One item assessed their general political views, one assessed their views on economic issues, and another assessed their views on social issues.

Results and Discussion

Data Preparation

Prior to this study's analyses, participants were removed from the dataset if they failed either of the attention check items, did not complete substantial portions of the survey, and/or completed the survey in less than seven minutes; the seven minute cutoff was established via time trials, and it was determined that going through this study's 116 items and the instructions could not reasonably be completed under this time. Out of an original 614 participants, 11 were cut for having incomplete data (i.e. missing the entire moral foundation or trait emotion sections), 76 participants were cut for finishing the survey in less than seven minutes, and 104 participants were cut for failing one or both of the attention check items. This resulted in a total N of 423. All positively framed items from the trait contempt questionnaire (e.g. emotional warmth items) were reverse-scored prior to conducting any analyses. All such items are marked with an (R) in Appendix A.

Exploratory Factor Analysis

Prior to testing this study's hypotheses, items from the trait contempt instrument were analyzed using a series of exploratory factor analyses. This was done in order to increase the construct validity of the instrument by identifying items that did not share much common variance with the rest of the instrument's items (Pett et al., 2013). Results from the factor analyses also allowed the trait contempt instrument to be reduced to a more feasible number of items that better represented trait contempt as a construct (Pett et al., 2013). These exploratory factor analyses were done using common factor analysis, otherwise known as

principle axis factoring (PAF). PAF allows each of the factors to correlate with one another, and it only retains the *common variance* among the variables; it is typically recommended when it is predicted that all of the factors are theoretically related (Pett et al., 2013). Because all subscales and items were designed to assess an underlying construct – trait contempt – PAF was ideal in this case, as it allowed items that had little common variance with the other items to be more easily identified and subsequently removed.

Initial principle axis factoring model. An initial PAF was done to identify the most appropriate number of factors to use in subsequent fixed-factor solution PAFs. The initial PAF used the direct oblimin rotation and a delta parameter of zero. It had a KMO value of .92, and Bartlett's test was significant at $p < .000$, indicating that the items as a whole were highly interrelated and well-suited to be used in a factor analysis (Pett et al., 2013). Determining this appropriate number of factors was guided by identifying which factors had both an eigenvalue of > 1 and accounted for > 5% of the total variance in the model; this decision was also guided by examining the scree plot's point of discontinuity (see Figure 2). The initial PAF identified 12 factors which had Eigenvalues > 1, but only two of these factors explained more than 5% of the model's variance; the first factor had an eigenvalue of 14.59 and accounted for 26.06% of the model's variance, and the second factor had an eigenvalue of 3.86 and accounted for 6.9% of the model's variance. However, a third factor was close to meeting the criteria; it had a large eigenvalue (2.56) and explained 4.58% of the model's variance. In

contrast, the scree plot indicated that a five-factor solution could be viable, as solutions with greater than five factors represented the point of discontinuity.

Fixed-factor principle axis factoring models. Based on the results of the initial PAF, several subsequent PAFs with fixed-factor solutions were done in order to identify items which routinely loaded poorly across multiple factor solutions; this was also done to identify the general factor structure of the trait contempt instrument, in order to guide later decisions related to scale construction for a final version of the trait contempt instrument. Each fixed-factor PAF used a direct oblimin rotation with a delta parameter of 0. Based on the selection criteria used in the initial PAF, these subsequent PAFs used fixed-factor solutions with two, three, and five factors. An additional seven-factor solution model was also included in these analyses in order to examine whether factors thematically related to the original organization of the seven subscales would emerge.

Hypothesis I: Testing the Construct Validity of the Trait Contempt Instrument's Subscales

Hypothesis I predicted that items from each of the trait contempt subscales would load onto separate factors that would have high internal consistency. Hypothesis I was tested by examining the results of the two, three, five, and seven fixed-factor PAF models described in the previous section. Two criteria were used to confirm Hypothesis I; (1) the results of the factor analyses should yield factors based on the original categorical organization of the subscales, and (2) scales based on each of these factors should have an $\alpha > .80$. This process was also used to identify items which could be cut from the scale; if an item had consistently

loaded < .40 across most models *and* it reduced the internal consistency of the scale based on that factor, then that item was subsequently cut from the final version of the trait contempt instrument which was used to test subsequent Hypotheses. Upon examination of each of the fixed-factor solution model results, several consistent trends emerged regarding the factor structure of the trait contempt instrument.

Cold feelings and avoidant action tendencies. Across most models, nearly all items from the cold feelings and avoidant action tendency subscales routinely hung together onto a single factor; this coldness/avoidance factor had eigenvalues > 14 and accounted for > 25% of the trait contempt instrument's variance across all fixed-factor solution models. These findings strongly indicated that items from the coldness and avoidance subscales could be combined into a single scale. These results met the first criteria of Hypothesis I; items from the coldness and avoidant action tendency subscales loaded onto a single factor in a consistent manner.

Cold feelings and avoidant action tendencies: Internal reliability and items dropped. None of the items from the cold feelings and avoidant action tendency subscales consistently loaded < .40 across the different PAF models, indicating all items from these subscales could be retained. Combined, all eight items from the avoidant action tendencies subscale had high internal reliability, (α = .84), as did all eight items from the cold feelings subscale, (α = .82). In both cases, the alphas did not improve upon the deletion of any individual items. When all 16 items from these two subscales were combined into a single scale, the

internal reliability remained high, (α = .89), and their reliability was not improved upon the deletion of any individual items. These results met the second criteria of Hypothesis I; items from the cold feelings and avoidant action tendency subscales – as well as their combination – had high internal consistencies, with α > .80.

Feelings of superiority and social standard violations. Across most models, items from the feelings of superiority and social standard violation awareness subscales routinely hung together onto either one or two factors. In the five-factor model, items from these subscales split into two factors; one factor contained all positively framed (I.e. reverse-scored) superiority and social standard violation items, while a second factor contained all negatively framed items from these two subscales. In the three- and two-factor models, nearly all items from both subscales loaded onto a single factor. Across all models, factors containing negatively framed superiority and social standard items had eigenvalues > 3.65 and accounted for > 6.7% of the trait contempt instrument's variance. These results met the first criteria of Hypothesis I; items from the feelings of superiority and social standard violation awareness subscales loaded onto a single subscale in a consistent manner.

Feelings of superiority and social standard violations: Internal reliability and items dropped. All eight items from the feelings of superiority subscale had high internal reliability, (α = .89), and the alpha did not improve upon the deletion of any item; all superiority subscale items were retained. Similarly, all eight items from the social standard violations awareness subscale had a moderately high alpha, (α = .81). However, two of the reverse-scored items

from the social standard violation subscale had low loadings across the various PAF models: "Behaving better than I expect them to" and "Doing their job better than I expected them to." Deleting these two poor-loading items increased the subscale's alpha, (α = .84), so they were subsequently dropped from the scale. The combination of the remaining 14 items from these two subscales had a high alpha, (α = .91); the alpha did not improve upon the deletion of any items. These results met the second criteria of Hypothesis I; both subscales – as well as their combination – had high internal consistencies, with $\alpha > .80$.

Derogatory action tendencies. The loadings of items from the derogatory action tendencies subscale were somewhat less consistent across the different PAF models. In the two- and three-factor solutions, derogatory action tendency items loaded onto a large factor primarily consisting of cold feelings and avoidant action tendency items; however, the majority of derogatory action tendency items loaded < .40 in the two-factor solution. In the five- and seven-factor solutions, most derogatory action tendency items formed their own factor; this factor had a minimum eigenvalue of 1.78 and explained a minimum of 3.18% of both model's variance. Thus, these results mostly fit the first criteria of Hypothesis I; items from the derogatory action tendency scale formed their own factor, indicating this subscale assessed a valid construct. However, these results also indicated that derogatory action tendencies may be more weakly relate to the overall trait contempt construct than the two previously discussed factors.

Derogatory action tendencies: Internal reliability and items dropped. The eight items from the derogatory action tendency subscale had a moderately

high alpha (α = .82). One item, "I talk about other peoples' good qualities," consistently loaded < .40 across most PAF models; deleting this item increased the scale's reliability (α = .83), so it was removed from the instrument. These results met the second criteria of Hypothesis I; the derogatory action tendency subscale had moderately high consistency, with α > .80.

Psychological distancing and negative dispositional attributions. Items from the psychological distancing and negative dispositional attribution subscales did not load in a consistent manner across the different PAF models. In the two- and three-factor solutions, about half of the items from these subscales loaded weakly (< .45) onto a large factor primarily consisting of the cold feelings and avoidant action tendency items. However, most items from these two subscales generally did not load > .40 on any theoretically sensible factor; indeed, the majority of these items did not load > .40 on any factors across most of the PAF models. Given that these items did not consistently load onto a theoretically sensible factor, the first criteria for Hypothesis I was not met for the psychological distancing and negative dispositional attribution subscales.

Psychological distancing and negative dispositional attributions: Internal reliability and items dropped. The eight items from the negative dispositional attribution subscale did not have a sufficiently high alpha, (α = .75). Furthermore, three of its items consistently loaded < .40 across all PAF models: "If someone is in a bad situation, I think that it's probably their own fault," "I assume someone's bad behavior reflects something about their personality," and "I assume that someone's good behavior reflects something about their

character." Deleting these three items improved the negative dispositional attribution subscale's alpha to an acceptable level (α = .80); thus, the negative dispositional attribution subscale met the second criteria for Hypothesis I.

The eight items from the psychological distancing subscale did not have a sufficiently high alpha, (α = .78). Three psychological distancing items consistently loaded < .40 across most PAF models: "I have little sympathy for people who can't get their act together," "I expect most people to disappoint me," and "I have low expectations for people." However, deleting any combination of these items *lowered* the psychological distancing scale's reliability. Therefore, the psychological distancing subscale met neither the first nor the second criteria for Hypothesis I. However, given that the psychological distancing scale's reliability was very close to the criteria (α = .80), it was included in subsequent analyses.

Summary: Reduced trait contempt instrument. I determined that a five-factor/subscale model was the most appropriate way to organize the size-reduced trait contempt instrument. The PAF and subsequent reliability analyses clearly indicated that the cold feelings and avoidant action tendency items should be combined into a single scale (16 items); these two tests similarly indicated that the feelings of superiority and social standard violation items should be combined into a single scale (14 items). The PAF results were not as consistent for the remaining three subscales; however, each subscale had a high enough internal reliability that they could justifiably be retained in their original forms (minus several items). Therefore, the final trait contempt instrument will also consist of the following three subscales: negative dispositional attributions (5 items),

psychological distancing (8 items), and derogatory action tendencies (7 items). The means from each of these five factors was combined into an omnibus trait contempt scale. This omnibus scale was used for all subsequent analyses of Study 1.

Hypothesis II: Do the Subscales Contribute to a Single Trait Contempt Factor?

Hypothesis II predicted that all factors that emerged from the testing of Hypothesis I will contribute to an overall latent variable called *trait contempt*. This prediction was tested using Cronbach's alpha (1951) and a confirmatory factor analysis. Means for each of the five previously described trait contempt subscales were tested with a Cronbach's alpha. For the omnibus trait contempt construct, an alpha of .70 or greater was considered acceptable. This is because broad and multifaceted constructs, by their nature, tend to have lower alphas than simpler constructs (Graham et al., 2011; Santos, 1999). High internal consistency on the omnibus scale would also support the proposal that the associated cognitions, action tendencies, and feelings assessed in the five subscales do indeed comprise the key elements of contempt as general emotion. The first criteria of Hypothesis II was confirmed; the internal reliability of the five subscales, combined into an omnibus trait contempt scale, did indeed have strong reliability, ($\alpha = .87$); the alpha did not improve upon deleting any of the five subscales. Thus, one component of Hypothesis II was confirmed.

Confirmatory factor analysis. The contribution of each factor/subscale to the overall latent trait contempt construct was tested using a confirmatory

factor analysis (CFA). The individual means of each of the five factors/subscales (derived from the PAF analyses) were used as predictors of a latent trait contempt construct. The results of the CFA should indicate which factors are significantly contributing to the latent variable, as well as the relative strength of these contributions. For use in the CFA, correlations using listwise deletion (n = 503) were calculated between the following subscales: cold feelings and avoidant action tendencies, feelings of superiority and social standard violation awareness, negative dispositional attributions, psychological distancing, and derogatory action tendencies; see Table 1 for this correlation table. All observed variables used in the CFA had a normal distribution.[1]

LISREL version 9 was used to conduct the CFA. The maximum likelihood estimation method was used, as this is the most commonly used estimation method in SEM (Kline, 2011). To test the model's fit, the maximum likelihood ratio Chi-Square (χ^2), Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA) statistics were used. Hypothesis II will be confirmed if several criteria are met. First, the overall model should fit the data; this will be determined if the Chi-Square (χ^2) is *not* significant, if the CFI is > .90, and if the RMSEA value falls within its 10% confidence interval. If these criteria are not met within the first model, an additional model with theoretically

[1] All observed variables had skewness and kurtosis values well below +/- 1.5.

appropriate respecifications (i.e. addition of error covariances) will be done to improve the model's fit. In either case, if the model fits the data, then Hypothesis II will subsequently be confirmed if all five subscales are found to be significant predictors of the latent trait contempt construct.

The first model was generally supportive of Hypothesis II, although it did not fully meet the abovementioned criteria for fit statistics. Specifically, the maximum likelihood Chi-Square was significant, $\chi^2 = 31.10$, $p < .001$. However, the RMSEA value did fall within the 90% confidence interval, RMSEA = .10, 90% CI = [0.07, 0.14], and the model's CFI was very high, CFI = .98; the latter two statistics indicated an acceptable fit. Additionally, all five subscales were significant predictors of a latent trait contempt construct, with moderate to strong factor loadings, which was also supportive of Hypothesis II. However, the modification indices suggested that adding several error covariances would substantially increase the model's fit. Specifically, it suggested adding error covariances between the cold feelings and avoidant action tendency subscale with (1) the psychological distancing subscale and (2) the superiority and social standard violation awareness subscale. I determined that these suggestions were theoretically appropriate, as similar types of error could all be affecting these three subscales (e.g., social desirability, mood state, etc.). The modification indices also suggested adding error covariances between the superiority and social standards subscale and the derogatory action tendencies subscale. I determined that this error covariance was also theoretically appropriate, as both subscales

pertain to negative and critical views of others, and thus might be affected by similar types of error.

A second CFA model was tested, which incorporated the abovementioned error covariances. This model had substantially better fit statistics, $\chi^2 = .76$, $p = .68$, RMSEA < .01, 90% CI = [0.0, 0.07], CFI = 1.00. In regard to the second model, Hypothesis II was fully confirmed; all five subscales were significant predictors of a latent trait contempt construct (at $p < .05$), with moderate to strong factor loadings. Psychological distancing ($\lambda = .87$), cold feelings with avoidant action tendencies ($\lambda = .83$), and negative dispositional attributions ($\lambda = .75$) had the strongest factor loadings, while derogatory action tendencies ($\lambda = .63$) and feelings of superiority with social standard violation awareness ($\lambda = .49$) had more moderate loadings. For a list of all parameter estimates, their standard errors, error covariances, and R^2 values, see Table 2. For the path diagram, see Figure 3.

Discussion of Hypotheses I & II: The Factor Structure of the Trait Contempt Scale and Construct. The results of the internal reliability analyses, exploratory factor analyses (EFA), and the confirmatory factor analysis (CFA) all indicated that the trait contempt instrument fits the criteria for construct validity, both within each individual subscale and within the omnibus scale comprised of those subscales. The results of the EFA also indicated that an emotional and interpersonal coldness factor (cold feelings and avoidant action tendencies) explained the largest amount of common variance among the items. The subsequent CFA indicated that this interpersonal coldness factor, along with psychological distancing, accounted for the greatest amount of variance in the

overall trait contempt construct. It is noteworthy that these dimensions can essentially be described as the affective, behavioral, and cognitive aspects of "coldness." As such, these coldness-related dimensions likely represent the "primary" elements of trait contempt, and potentially state contempt as well.

The other dimensions – social standards, superiority, negative attributions, and derogatory action tendencies – all accounted for moderate to strong amounts of variance in the trait contempt construct. A common thread among all these dimensions is that they are different manifestations of an "other-critical" bias. The results of the EFA and CFA indicated that these other-critical dimensions are a meaningful and contributive aspect of the trait contempt construct. However, the other-critical dimensions explained relatively less variance than the coldness-related dimensions. This indicated that the other-critical dimensions likely represent the "secondary" elements of trait contempt, and potentially state contempt as well.

Hypothesis III: Testing the Discriminant and Convergent Validity of the Comprehensive Trait Contempt Scale

Hypothesis IIIa predicted that this study's trait contempt instrument would have discriminant validity from both the trait anger and trait disgust scales. Hypothesis IIIb predicted that this study's trait contempt instrument would have convergent validity with the two alternative trait contempt instruments. Because negative trait emotions share a moderate amount of variance (Izard et al., 1993), these hypotheses were tested using a principle components analysis (PCA). In contrast to the principle axis factoring used in Hypothesis I, PCAs incorporate the

unique variance of each included item, and are ideal to use when the distinctions between each factor is of theoretical interest (Pett et al., 2013). The PCA used a varimax rotation and a forced 3-factor solution. The omnibus mean of the five trait contempt subscales – henceforth referred to as *comprehensive trait contempt* – was used to represent this study's trait contempt variable in the PCA. The PCA also included means for Izard's trait contempt, disgust, and anger instruments. Finally, it also included two means from Crowley's trait contempt expression instrument (2013); one was the mean of the instrument's interpersonal coldness items, and the other was the mean of the instruments open expression of verbal hostility items.

Discriminant validity will be demonstrated if trait contempt, trait disgust, and trait anger load onto three separate factors. Convergent validity will be demonstrated if all three trait contempt means load onto a single factor. However, convergent validity would still be demonstrated in the event that the mean for Crowley's (2013) contempt expression subscale loads onto trait anger rather than the trait contempt factor because anger has an approach action tendency, and the open expression of verbal dislike could relate to anger (Haidt, 2003).

Results of principle components analysis. See Table 3 for correlations between all variables used in the analyses. The results of the principle components analysis did not match the predicted pattern. First, a general negative trait emotion factor contained all three of Izard's trait anger (.84), contempt (.75), and disgust scales (.85), along with the comprehensive trait contempt instrument (.63). Because trait contempt loaded onto the same factor as trait anger and

disgust, these results did not confirm Hypothesis III in regard to trait contempt's discriminant validity. A second "coldness" factor contained Crowley's interpersonal coldness subscale (.84) and *also* contained the comprehensive trait contempt scale, which had a factor loading equal to that of the first factor (.63). These results partially confirmed Hypothesis III in regard to trait contempt's convergent validity with Crowley's coldness subscale. Finally, a third factor contained Crowley's verbal hostility subscale (.87), on its own, which neither confirmed nor disconfirmed Hypothesis III. Theoretically, it was difficult to discern what was driving the comprehensive trait contempt instrument to load equally onto two separate factors in these results; one possible explanation for this is the multidimensionality of trait contempt. It could be that the two equal loadings may have been driven by different dimensions of trait contempt for the general negative trait emotion factor than they were for the coldness factor. In order to determine whether these similar loadings were being driven by specific dimensions of the comprehensive trait contempt instrument, I did an additional PCA.

The additional PCA included the five separate contempt subscales as variables, rather than the single comprehensive trait contempt variable; it had no fixed factor solution, used a varimax rotation, and retained all factors with eigenvalues > 1. This resulted in a two factor solution. In keeping with the initial PCA, the first factor contained Izard's trait contempt (.69), anger (.82), and disgust (.70) instruments. However, the first factor also included two of the "other-critical" aspects of trait contempt – the derogatory action tendencies

subscale (.73) and the superiority and social standard violations subscale (.76). Combined, these items could perhaps be characterized as a general "social outrage and negativity" factor, such that they all may involve a negativity bias towards other people, coupled with an ease of experiencing negative emotions towards them. The content of this social outrage factor indicates that Hypothesis III was *not* confirmed in regard to the discriminant validity of the other-critical dimensions of trait contempt; however, their convergent validity was confirmed in regard to Izard's trait contempt scale.

The second factor contained Crowley's interpersonal coldness (.89) and contempt expression (.79) subscales, along with the combined cold feelings and avoidant action tendencies subscale (.80) and psychological distancing subscale (.63). Combined, these items are best characterized as an emotional and interpersonal coldness factor. This finding confirms Hypothesis III regarding the discriminant and convergent validity of all coldness-related dimensions of the trait contempt instruments. Finally, the negative dispositional attribution subscale loaded about moderately and equally onto both factor one (.53) and factor two (.54), indicating that negative attributions may be equally involved in both social outrage and interpersonal coldness.

Limitations of the analytical strategy. It is noteworthy that the chosen analytical strategy may have had several limitations, such that it may not have been the most appropriate type of model to use. Izard's trait anger, disgust, and contempt instruments share a great deal of common variance (Izard et al., 1993); as such, principle axis factoring (PAF) may have been a more appropriate gauge

of the genuine factor structure behind the items. This is because PAF is typically recommended when factors are expected to intercorrelated (Pett et al., 2013). PAF also only retains the common variance among items; as such, this may provide a more stringent test of the coldness-related scales' discriminant validity from the trait anger and disgust scales. Additionally, the choice of items to input into the PCA may have been a limitation; using scale means for Izard's and Crowley's instruments, rather than including all of their individual items, may have reduced the ability of the factor analysis to form separate factors for trait anger and disgust, potentially pushing the three scale means to load together more than they might have if they were each represented by multiple items instead.

With the abovementioned limitations in mind, I did a third factor analysis, this time a principle axis factoring model. It used a direct oblimin rotation and a forced three-factor solution. I included the five trait contempt subscale means, along with each individual item from Izard's and Crowley's scales. However, the results were qualitatively similar to the second factor analysis described in the previous section. All of Izard's trait anger, contempt, and disgust items formed a single "other-critical" factor, which also included the superiority/social standards and derogatory action tendency subscales from my own trait contempt instrument. The second factor, again characterized by "emotional and interpersonal coldness," was comprised of my instrument's cold feelings and avoidant action tendencies subscale, along with all items from Crowley's interpersonal coldness and contempt expression subscales. Finally, my instrument's psychological distancing and negative dispositional attribution subscales formed a third factor; however,

these two subscales also loaded similarly well onto the first factor, and the psychological distancing subscale loaded moderately well onto the second factor. Thus, the change in analytical strategy did not appear to qualitatively change the overall pattern of results in a substantial manner.

Discussion of Hypothesis III: Convergent and Discriminant Validity. The results of the second and third factor analyses helped clarify the degree of the comprehensive trait contempt instrument's discriminant validity from trait anger and disgust, and its convergent validity with the other trait contempt instruments. As suspected, it did indeed appear that only certain dimensions of the comprehensive trait contempt instrument were loading onto the same factor as trait anger and disgust. Based on the results of the second and third factor analyses, the "other-critical" dimensions of the comprehensive trait contempt instrument appeared to be driving trait contempt's loading onto a general negative trait emotion factor; thus, the other-critical dimensions initially led to discriminant validity being difficult to confirm for the comprehensive trait contempt instrument as a whole (i.e., in the first factor analysis). In contrast, the factor loadings of the coldness-related dimensions much more clearly indicated trait contempt's discriminant validity from trait anger and trait disgust, and its convergent validity with other trait contempt instruments. These findings appear to be related to the results from Hypotheses I-II, in that they might also indicate that the coldness-related dimensions represent the "primary" – and perhaps most unique – elements of the trait contempt construct. In contrast, the other-critical dimensions appeared

to explain relatively less variance to the overall construct in Hypotheses I-II, and the results from Hypothesis III might suggest that this is due a greater amount of common variance shared between trait contempt's other-critical dimensions and both trait anger and trait disgust.

Hypothesis IV: Does Trait Contempt Uniquely Predict Loyalty and Authority Values?

Hypothesis IV predicted that trait contempt would be a stronger predictor of loyalty and authority foundation valuation, compared to both trait anger and trait disgust. This was tested using two multiple regressions. Both regressions used this study's comprehensive trait contempt scale, Izard's trait anger, and Izard's trait disgust as independent variables. The first regression used authority valuation as the dependent variable, whereas the second regression used loyalty valuation. In both cases, these were two-step hierarchical regressions, in which trait contempt was initially used as the sole predictor, and then trait anger and disgust were subsequently introduced as predictors in the second step. Hypothesis IV will be confirmed if trait contempt significantly predicts loyalty and authority values, if this relation remains significant after introducing trait anger and disgust into the model, and if the beta value of trait contempt is greater than the betas for both trait anger and trait disgust. Changes in the model's R^2 will be used to assist this decision if trait anger and/or disgust also significantly predict loyalty and authority values, and if their beta values are similar to trait contempt's.

Trait contempt as a predictor of authority values. In the first step of the hierarchical regression, although trait contempt did significantly predict authority values, the relation was *negative,* β = -.09, *p* = .042; additionally, the overall effect size of the first model was weak, R^2_{adj} = .01, *F* = 4.17, *p* = .042. After introducing trait anger and disgust, the second step's overall effect size improved, R^2_{adj} = .03, *F* = 4.98, *p* = .007; trait contempt was no longer significant in the second model, β = -.07, *p* = .236. Unexpectedly, trait anger negatively predicted authority values, β = -.16, *p* = .011, and trait disgust positively predicted authority values, β = .16, *p* = .006. Thus, Hypothesis IV was not confirmed in regard to authority values. These results instead indicated that trait contempt shares a substantial amount of common variance with trait anger and/or disgust as a predictor of authority values.

Trait contempt as a predictor of loyalty values. The first step of the hierarchical regression for loyalty values was very similar to the one for authority values. Although trait contempt did significantly predict loyalty values, the relation was *negative*, β = -.10, *p* = .027 and the model's effect size was weak but significant, R^2_{adj} = .01, *F* = 4.90, *p* = .027. Introducing trait anger and disgust as predictors increased the model's effect size, R^2_{adj} = .02, *F* = 4.26, *p* = .015; in this case however, the trait contempt actually became a *stronger* predictor of loyalty values in the second model, β = -.17, *p* = .005. Trait anger did not predict loyalty values, β = -.02, *p* = .791, but trait disgust did positively predict loyalty values, β = .16, *p* = .006. As such, Hypothesis IV was not confirmed in regard to loyalty values. Given that trait contempt and disgust's effect sizes were very similar, and

that the ΔR^2 between models one and two could be explained by both the introduction of disgust and the increased effect size of contempt, it could not be determined that trait contempt was the strongest predictor of loyalty values. However, these results are intriguing, in that the direction of the relation between trait contempt and loyalty values were in the opposite direction of the predicted relation.

Discussion of Hypothesis IV: Trait contempt and moral values. The most unexpected finding in regard to moral values was that trait contempt *negatively* predicted loyalty values with a moderate effect size. This finding may imply that people with stronger loyalty values are more likely to be emotionally and interpersonally warm and are less likely to think and speak negatively of others. In retrospect, this finding does seem to be intuitive, given that loyalty values involve social harmony and cohesion. However, this was puzzling as I did not come across any theoretical basis for this in the literature. The only seemingly related study looked at moral foundation values and trait agreeableness – which involves interpersonal warmth (Hirsh, DeYoung, Xu, & Peterson, 2010); however, they found that trait agreeableness did *not* significantly relate to loyalty values (2010). These puzzling results indicate that further analysis of the Study 1 data would be merited. A path model or multiple regression that includes all five trait contempt subscales as predictors of loyalty values might illuminate which dimensions are predominately driving this negative relation, and whether certain dimensions of trait contempt might have positive associations with loyalty values.

Trait emotions and the CAD model. The results of Hypothesis IV generally indicated that the CAD model does not neatly apply to the relations between negative trait emotions and the moral foundations. Trait contempt did not uniquely relate to authority values, and negatively associated with loyalty values. These findings suggest that trait contempt does not fit within the CAD pattern. More broadly, the results for Hypothesis IV also cast doubt on the wider prediction that trait emotions generally adhere to the CAD pattern. Unexpectedly, both trait anger and disgust associated with authority values, and had larger effect sizes than did trait contempt; similarly, trait disgust predicted loyalty values in the direction that trait contempt was originally expected to (positive). In both cases, these results do not fit with the domain-specificity of emotions described in research based on the CAD model.

Trait contempt and other moral values. Given that Study 1's findings did not closely correspond to the CAD model, further analysis is needed in regard to whether or not trait emotions function differently from *state* emotions as predictors of moral values and judgment (with the exception of trait disgust). For instance, it may be the case that although *state* contempt is elicited by authority and loyalty violations, trait contempt may function somewhat differently as a predictor of moral values – as indicated by the negative relation between trait contempt and loyalty. A similar type of discrepancy was found between trait anger and state anger in a study by Horberg and colleagues (2009); although justice (fairness) violations were found to predict state anger responses, trait anger did not predict fairness values (Horberg et al., 2009). Thus, it may be the case that

trait contempt – compared to state contempt – may play a substantially different role as an influence on moral values. Considering that loyalty values were *negatively* predicted by trait contempt, it might be the case that trait contempt negatively predicts other kinds of moral values.

Along these lines, one study found that harm/care values were positively related to trait empathy (Graham et al., 2011). Considering that contempt is partially defined by a lack or loss of empathy (cold feelings and psychological distancing) towards a target, a unique *negative* relation between trait contempt and harm/care values is worth further exploration with the Study 1 data; indeed, a preliminary side analysis confirmed that trait contempt did indeed *uniquely* associate with harm/care values[2]. Considering that Hutcherson and Gross (2011) proposed that contempt may have evolutionary origins in identifying and avoiding "bad group members" who do not contribute or pull their own weight, it would also be worth testing the relation between trait contempt and reciprocity values[3]. This is because reciprocity values can in part be characterized by a dislike of free-riding behaviors and a desire to have people rewarded in proportion to their effort

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[2] In a side analysis, I ran a multiple regression model which included trait anger, disgust, and contempt as predictors of harm/care values. Trait contempt was found to be the sole significant predictor of harm/care values, with a moderate and negative effect ($\beta = -.31$, $p < .001$).

[3] In a side analysis, I ran a multiple regression model with all five moral foundations (plus reciprocity) as predictors of trait contempt. Trait contempt significantly predicted reciprocity values ($\beta = .32$, $p < .001$) and harm/care values ($\beta = -.28$) with a moderate effect. However, trait contempt did not uniquely predict reciprocity values in a regression which also included trait anger and disgust as variables.

or contribution (Haidt, 2012). With this in mind, further analysis of all three trait contempt instruments in relation to the five moral foundations may provide theoretically interesting and novel results.

Hypothesis V: Is the Omnibus Trait Contempt Instrument a Stronger Predictor of Moral Values than the Pre-existing Instruments?

Hypothesis V predicts that this study's trait contempt instrument will be a stronger predictor of loyalty and authority foundation valuation than both of the alternative trait contempt instruments. This was tested using two confirmatory factor analyses. The mean scores for each trait contempt instrument (Izard's, Crowley's, and this study's) were calculated, and each mean was treated as a separate observed variable which were subsequently used as predictors for loyalty values (model 1) and authority values (model 2). Hypothesis V would be confirmed if the paths for this study's trait contempt instrument are significant for both foundations, and if this path's relation is stronger than those of the other two instruments' paths.

Path models. Correlations for each of the abovementioned observed variables were calculated using listwise deletion (Table 4). The table's covariance matrix was used for both path analyses (n = 460). In the first path model, all three trait contempt instrument paths were significant predictors of loyalty values at $p <$ .05; $\lambda_{\text{Izard}} = .09$, [$\delta = .05$], $\lambda_{\text{Crowley}} = .04$, [$\delta = .05$], $\lambda_{\text{Comprehensive contempt}} = -.24$, [$\delta = .08$], error variance = .74, [$\delta = .05$], $R^2 = .02$. Thus, in regard to loyalty values, Hypothesis V was partially confirmed. This study's trait contempt instrument was the strongest predictor of loyalty values among the three different trait contempt

scales; however, the direction of the relation was *negative*, which was opposite of the predicted direction.

In the second path model, all three trait contempt instruments were significant predictors of authority values at $p < .05$; $\lambda_{\text{Izard}} = .07$, [$\delta = .05$], $\lambda_{\text{Crowley}} = -.01$, [$\delta = .05$], $\lambda_{\text{Comprehensive contempt}} = -.16$, [$\delta = .08$], error variance = .81, [$\delta = .05$], $R^2 = .01$. Thus, in regard to authority values, Hypothesis V was partially confirmed; this study's trait contempt instrument was the strongest predictor of authority values among the three different trait contempt scales; once again, however, the relation was opposite of the predicted direction. See *Figure 4* for the path diagrams of both models.

Improvement over other trait contempt scales. The results from Hypothesis V may indicate that the comprehensive trait contempt instrument is able to account for substantially more variance in moral values than both Izard's and Crowley's instruments. In broad theoretical terms, the comprehensive trait contempt scale appears to be an improvement over the only two pre-existing trait contempt scales, in terms of its multidimensionality and the wider breadth of item content. For instance, while Crowley's trait contempt expression instrument (2013) does include a coldness dimension, this study's coldness subscale appears to be an improvement. Specifically, Crowley's emotional coldness subscale has very little breadth of content; all four of its items are small variations of the phrase "I [am / am not] a cold person." This study's trait coldness instrument's cold feelings subscale covers a wider range of thoughts, feelings, and behavior pertaining to coldness in addition to cold/warm terminology.

The three items in Izard and colleagues' trait contempt instrument (1993) are measured almost exclusively in terms of feelings of superiority. As such, this study's trait contempt instrument is a significant improvement. It contains a wider range of superiority and similar other-critical items. More importantly, it also incorporates measures of other dimensions, which in terms of effect size, were substantially stronger contributors to the overall trait contempt construct. As such, this study's instrument appears to have more explanatory power and broader potential applications for future research than both Izard's and Crowley's scales.

Study 2

In order to avoid the semantic confounds associated with the word "contempt," Study 1 was designed to assess trait contempt by breaking down contempt into several key characteristics (Fischer & Roseman, 2007; Haidt, 2003). Study 2, in contrast, will avoid these semantic confounds by means of having participants match pictures of facial expressions to short scenarios. This type of facial expression matching task has proven successful in assessing contempt in previous research (Rosenburg & Ekman, 1995; Rozin et al., 1999). In short, participants will read brief descriptions of moral violations, and will then rate three photos of facial expressions depicting contempt, anger, and disgust according to how strongly they feel the depicted emotion towards the described event.

The use of a facial expression rating task may be particularly valuable because it can help resolve several gaps in the moral emotion literature. First, Study 2 will be designed to explicitly test the assumed link between the CAD

emotions (contempt, anger, and disgust) and the five moral foundations. It will do so by expanding upon the original *CAD hypothesis* study to include content from the five moral foundations, rather than merely the three ethics of autonomy, community, and divinity (Rozin et al., 1999; Shweder et al., 1993).

To briefly review, the CAD hypothesis study demonstrated links between contempt and community violations, anger and autonomy violations, and disgust and divinity violations. It has been mostly assumed that contempt, anger, and disgust are differentially elicited by violations of different moral foundations, primarily since the moral foundations are directly derived from Shweder's three ethics (Alderman et al., 2010; Haidt & Joseph, 2004; Rozin et al., 1999; Shweder et al., 1997). And indeed studies have found that purity violations elicit disgust, and fairness/reciprocity violations elicit anger (Horberg et al., 2009). However, it does not appear that any published study has specifically tested which moral foundation violations elicit contempt, nor has any published study included all three CAD emotions and their relation to violations of each of the five moral foundations. Additionally, it appears that no published study has replicated Rozin and colleagues' methodology and applied it to the five moral foundations (1999).

Study 2 will also further explore the comprehensive trait contempt scale's relation to morality; while Study 1 looked at trait contempt as a predictor of moral *values*, Study 2 will investigate whether trait contempt predicts specific patterns of moral *judgment* towards value-violating behaviors. The comprehensive trait contempt instrument will also be compared with contempt facial expression

ratings, to determine if trait contempt predicts more severe contemptuous reactions across all types of moral scenarios.

Hypotheses

Hypothesis VIa. It is predicted that contempt faces will be rated at significantly greater magnitudes than both anger and disgust faces following scenarios depicting loyalty and authority violations.

Hypothesis VIb. It is predicted that loyalty and authority scenarios will have greater contempt face magnitudes than the other scenario types.

Hypothesis VIc. It is predicted that anger faces will be rated at significantly greater magnitudes than both contempt and disgust faces following scenarios depicting harm, fairness, and reciprocity violations.

Hypothesis VId. It is predicted that harm, fairness, and reciprocity scenarios will have greater anger face magnitudes than all other scenario types.

Hypothesis VIe. It is predicted that disgust faces will be rated at significantly greater magnitudes than both contempt and anger faces following scenarios depicting purity violations.

Hypothesis VIf. It is predicted that purity scenarios will have greater disgust face magnitudes than all other scenario types.

Hypothesis VIIa. It is predicted that trait contempt will positively relate to contempt expression magnitudes across *all* scenario types, and that this relation will be stronger than trait anger and trait disgust's relation to contempt expression magnitudes.

Hypothesis VIIb. It is predicted that trait disgust will positively relate to disgust expression magnitudes across *all* scenario types, and that this relation will be stronger than trait anger and trait contempt's relation to disgust expression magnitudes.

Hypothesis VIIc. It is predicted that trait anger will positively relate to anger expression magnitudes across *all* scenario types, and that this relation will be stronger than trait contempt and trait disgust's relation to anger expression magnitudes.

Hypothesis VIII. It is predicted that trait contempt will positively relate to immorality judgments towards both the actor and their behavior within loyalty and authority violation scenarios.

Method

Study 2 used a within-subjects experimental design. Participants took an online survey where they read scenarios depicting moral violations representing the five moral foundations (plus reciprocity violations) and completed a facial expression-rating task after each scenario, along with items assessing trait contempt, trait disgust, trait anger, and demographics.

Participants

Participants (N = 237) were recruited from Amazon's Mechanical Turk. Their mean age was 40.29 (SD = 12.81). They were 49.8% female and 28.3% male – 21.9% did not report their gender. In terms of race and ethnicity, participants were: Caucasian (57.8%), African American (9.3%), Asian (5.1%),

Latino/a (3.4%), “Other” or bi-racial (5.5%), and a number of participants did not report their race (19%).

Procedure

Participants took an online survey via Amazon’s M-Turk. After being briefed, participants completed a series of facial expression rating tasks, as well as several trait emotion instruments. These two sections of the survey were randomized in order to provide for counterbalancing. In the facial expression-rating tasks, participants first read a moral scenario (the order of scenarios was randomized); Each scenario described a person engaging in a behavior that violates one of the moral foundations. Next, they completed three facial expression rating measures (contempt, anger, and disgust), which were presented in a random order. Then they completed three moral judgment items, in a randomized order. When participants completed all measures related to the scenario, they clicked a “next” button and moved on to the next scenario, and repeated the process again until all of the scenarios were rated. Participants completed Izard’s trait contempt, disgust, and anger instruments, along with Study 1’s comprehensive trait contempt instrument. The order of the trait emotion instruments was randomized, as were the order of the items within each instrument. Finally, participants were debriefed about the purpose of the study and exited the survey.

Materials

Moral scenarios. There were 18 scenarios in total (for the full list of scenarios, see Appendix C). There were three scenarios apiece for violations of

the harm, fairness, loyalty, authority, and purity foundations. There were also three scenarios depicting *reciprocity* violations, as opposed to general fairness violations. The majority of the moral foundation scenarios were adapted from a study by Graham and Haidt (2012). The following items are several examples of these adapted scenarios: harm violation: a man "kicks a dog in the head, hard" (Graham & Haidt, 2012, p. 28); loyalty violation: an American woman harshly criticizes the United States on a "talk radio station in a foreign nation" (p. 28); authority violation: a woman "slaps her father in the face" during an argument (p. 28).

Facial expression magnitude ratings. After reading a scenario, participants were shown three photos of facial expressions, which depicted the contempt, anger, and disgust expressions. All three photos were of the same female model, shown in *Figure 5*, and were taken from the Standard Expressor Version of the Japanese and Caucasian Facial Expressions of Emotion (JACFEE; Matsumoto & Ekman, 1988). On top of each photo was a label with the name of that photo's emotional expression. Underneath each photo was a 7-point scale (1 = *not at all*, 7 = *very much*). Participants were instructed to rate all three emotions, and to rate any emotions they do not feel at all as a "1." For an example of this task's layout, see Appendix B. Given that each moral foundation had three scenarios (thus leading to three contempt, anger, and disgust ratings per violation type), within-foundation scales were calculated for: contempt ratings (harm α = .61; fairness α = .80; reciprocity α = .76; loyalty α = .70; authority α = .78; purity α = .75); for anger ratings (harm α = .51; fairness α = .65; reciprocity α = .69;

loyalty = .76; authority α = .76; purity α = .77); and for disgust ratings (harm α = .57; fairness α = .76; reciprocity α = .75; loyalty α = .75; authority α = .82; purity α = .63). These within-foundation emotion rating scales were used in all subsequent analyses.

Moral judgment items. After completing the facial expression rating measures, participants then answered three items relating to their judgments of the scenario content. Using 7-point scales, participants rated the following items: how immoral was the depicted *behavior* (1 = *not immoral at all*, 7 = *extremely immoral*); how immoral was the *person* who did this behavior (1 = not immoral at all, 7 = extremely immoral); and how *conventional* was the behavior (1 = *not conventional/typical at all*, 7 = *extremely conventional/typical*). For each scenario type, mean scores on the first item – immorality judgments of the behavior – were used as a measurement of participants' individual differences in moral foundation valuation. Within each moral foundation, moral judgments towards the behavior were scaled together (harm α = .60; fairness α = .68; reciprocity α = .60; loyalty α = .70; authority α = .76; purity α = .80). Similarly, within each moral foundation, moral judgments towards the person were scaled together (harm α = .56; fairness α = .62; reciprocity α = .59; loyalty α = .71; authority α = .75; purity α = .80). These within-foundation moral judgment scales were used in all subsequent analyses.

Trait emotion instruments. Participants completed four trait emotion instruments: two of these assessed trait contempt, one assessed trait anger, and one assessed trait disgust. The first trait contempt instrument contained the

majority of the items from the Study 1 comprehensive trait contempt instrument; however, several poor-loading items were removed from the scale based on the results of Study 1's factor analyses. The trait anger, trait disgust, and the second trait contempt instrument were directly taken from the updated differential emotion scale (DES), created by Izard and colleagues (1993), and were identical to those used in Study 1, and used the same 7-point scale ranging from 1 (very rarely) to 7 (very frequently). An attention check item was also put in this section of the survey.

Demographics. After completing both the facial expression rating task and the trait emotion instruments, participants completed demographic items pertaining to age, gender, race, education, and age. They also completed items related to political ideology. All demographic items were identical to those used in Study 1.

Results and Discussion

Data Preparation

Out of the original 237 participants, 29 participants were dropped for failing the attention check item, 17 were dropped for leaving one or more major survey sections blank (excluding demographics), and 21 participants were dropped for completing the task in less than 9 minutes; Time trials indicated that it was not feasible to complete all of the survey questions, facial expression matching, trait emotion, and demographic items under this time span. This resulted in a final *N* of 170.

Hypothesis VI: Does the CAD Model Apply to the Five Moral Foundations?

Hypothesis VI predicts that Rozin and colleagues' CAD model (1999) will be applicable to the five moral foundations. Specifically, Hypotheses VIa, VIc, and VIe predicted that facial expression ratings would match the CAD pattern *within* each scenario type. Hypotheses VIb, VId, and VIf predicted that facial expression ratings would match the CAD pattern *between* each scenario type. These predictions were tested using a 3 (contempt, anger, disgust) by 6 (harm, fairness, reciprocity, loyalty, authority, purity) within-subjects ANOVA[4]; results of the within-subjects ANOVA were interpreted by comparing the 95% confidence intervals of facial expression rating magnitudes within each type of scenario. Hypothesis I will be fully confirmed if these 95% confidence intervals are significantly different both within- and between-scenarios in accordance with the CAD pattern.

Repeated measures results. Graphs of facial expression ratings organized by moral scenario type can be seen in *Figure 6.* Given that there were 18 variables (3 emotions x 6 scenario types), it is not surprising that Mauchley's test indicated that the assumption of sphericity was not met for scenario type, $\chi^2 = 91.19$, $p < .001$, emotion type, $\chi^2 = 40.78$, $p < .001$, or for the interaction between emotion and scenario type, $\chi^2 = 401.79$, $p < .001$; therefore, Greenhouse Geisser values

[4] Given that each moral foundation had three scenarios, and thus three contempt, anger, and disgust ratings apiece, the within-foundation emotion-rating scales (described in the materials section), were used in the within-subjects ANOVA.

were used for subsequent interpretations. There was a significant within-subjects main effect of scenario type, Greenhouse-Geisser F (3.92, 556.97) = 51.21, p < .001, η^2 = .27; this indicated that certain types of scenarios elicited all three emotions more strongly than other scenarios, which complicated the interpretation of emotion magnitudes between scenarios. There was a significant interaction between scenario type and emotion type, Greenhouse-Geisser F (5.50, 781.24) = 82.21, p < .001, η^2 = .37; in keeping with Hypothesis VI, this indicated that certain emotions were elicited more strongly in certain types of scenarios. Finally, there was not a significant within-subjects main effect of emotion, Greenhouse-Geisser F (1.60, 226.99) = .49, p = .571, η^2 = .00; in keeping with Hypothesis VI, this indicated that no single emotion was elicited more strongly than the other two emotions across all scenario types.

Does contempt match the CAD pattern for loyalty and authority violations? See Table 5 for all emotion rating means and 95% confidence intervals that were used in the following interpretations. Hypothesis VIa predicted that contempt faces would be rated at significantly greater magnitudes than both anger and disgust faces within scenarios depicting loyalty and authority violations. Comparisons of the 95% confidence intervals of the three emotion ratings within loyalty scenarios indicated that there was no significant difference in magnitude between contempt, anger, and disgust ratings. Therefore, Hypothesis VIa was not confirmed for loyalty violation scenarios. Regarding authority scenarios, contempt ratings. However, contempt ratings did not significantly

differ from anger ratings; therefore Hypothesis VIa was not confirmed for authority values.

Hypothesis VIb predicted that loyalty and authority scenarios will have greater contempt face magnitudes than the other moral scenario types. In regard to loyalty values, the *opposite* of the predicted results emerged; loyalty scenarios had significantly *lower* contempt ratings than all other moral scenario types (as seen in Table 5). However, given that contempt, anger, and disgust ratings were not significantly different within loyalty scenarios (see results of Hypothesis VIa), this result appears to be driven by a main effect of loyalty scenarios – relatively lower emotional reactions in general – rather than a distinct relation between loyalty violations and lower contempt responses. In either case, Hypothesis VIb was not confirmed in regard to loyalty scenarios.

In regard to authority scenarios, they did not appear to have the strongest contempt responses. Rather, fairness and reciprocity violations had the strongest contempt responses. Contempt responses did not significantly differ between fairness and reciprocity scenarios, but contempt responses were significantly greater in fairness scenarios compared to all other remaining scenario types. Contempt reactions in authority scenarios did not significantly differ from those in harm and purity scenarios. Thus, Hypothesis VIb was not confirmed in regard to authority scenarios.

Does anger match the CAD pattern for harm, fairness, and reciprocity violations? See Table 5 for all emotion rating means and 95% confidence intervals used in the following interpretations. Hypothesis VIc predicted that

anger faces will be rated at significantly greater magnitudes than both contempt and disgust faces within scenarios depicting harm, fairness, and reciprocity violations. In regard to harm scenarios, anger means did not significantly differ from disgust or contempt means. In regard to fairness scenarios, anger means did not significantly differ from contempt means, although anger responses were significantly greater than disgust responses. In a similar fashion, anger means were significantly greater than disgust means within reciprocity scenarios, but they were not significantly different than contempt means. Thus, Hypothesis VIc was not fully confirmed for harm, fairness, or reciprocity scenarios; however anger was elicited to a more than disgust for the latter two scenario types, which replicates previous findings in the moral emotion literature.

Hypothesis VId predicted that harm, fairness, and reciprocity scenarios will have greater anger face magnitudes than all other scenario types. Hypothesis VId was fully confirmed for all three scenario types. Harm scenarios had significantly greater anger ratings than all other scenario types except reciprocity. Reciprocity and fairness violation scenarios had greater anger ratings than all remaining scenario types.

Does disgust match the CAD purity violations? See Table 5 for all emotion rating means and 95% confidence intervals used in the following interpretations. Hypothesis VIe predicted that disgust faces would be rated at significantly greater magnitudes than both contempt and anger faces within scenarios depicting purity violations. Hypothesis VIe was confirmed. Purity violations elicited stronger disgust responses than both contempt and anger

responses, by a wide margin. Another noteworthy finding within this comparison was that contempt reactions to purity violations were significantly greater than anger reactions. Hypothesis VIf predicted that purity scenarios will have greater disgust face magnitudes than all other scenario types. Hypothesis VIf was also confirmed. Disgust reactions in purity scenarios were significantly greater than all other scenario types, by a wide margin. As expected, findings from previous studies on moral emotions were replicated in this analysis; Hypothesis VI was fully confirmed in regard to the relation between purity violations and disgust.

Discussion of Hypothesis VI: Does the CAD pattern apply to the moral foundations? The results from Hypothesis VI indicated that the CAD pattern does *not* clearly map onto the moral foundations, with the exception of disgust's relation to purity violations. A main effect of scenario type often accounted for a large amount of the variance in facial expression ratings, such that certain types of scenarios elicited more severe reactions across all three negative emotions. This made between-scenario comparisons of any individual emotion difficult to interpret. Harm, fairness, and reciprocity scenarios tended to elicit the strongest magnitudes, whereas loyalty and authority scenarios tended to elicit the lowest facial expression rating magnitudes across all three emotions. In contrast to the CAD model, these results generally indicated that most types of moral violations tend to elicit *multiple* emotional responses, rather than a single discrete emotional response.

Interactions between emotion type and scenario type also accounted for a large amount of variance in certain instances and tended to more closely

correspond with the predicted CAD pattern. Specifically, anger was more strongly associated with harm, fairness, and reciprocity violations than was disgust, whereas disgust was more strongly associated with purity violations than was anger. However, In regard to this study's unique contribution—testing whether loyalty and authority violations predominately elicit contempt—the CAD model was disconfirmed. These two types of violations did not predominately elicit contempt over anger and disgust. Indeed, with the exception of purity violations, contempt was never significantly different from either anger or disgust ratings.

It is noteworthy that contempt never had the lowest magnitude among the three CAD emotions. Rather, it was statistically similar to all three emotions, with the exception of purity violations, where it was significantly lower than disgust but significantly greater than anger. These findings generally do not support this study's broad prediction that contempt is uniquely or discretely associated with certain types of moral violations. However, these results may also indicate that contempt is not simply a "weaker" or low arousal version of anger or disgust.

One possible explanation for the mixed results in the present study is that the original CAD study may have overstated the degree to which emotions are uniquely associated with one moral violation type. Specifically, the original CAD study used a single categorical choice paradigm, such that participants could only select one emotion, and they could not rate the magnitude of their emotional reactions in the facial expression selection task (Rozin et al., 1999). This approach did not consider shared variance between negative emotional reactions, and it failed to account for the strong elicitation of multiple emotional reactions towards

a single moral stimuli. Indeed, an additional analysis of the present study's data indicated that moral judgments towards all six types of moral foundation violations significantly predicted all three emotional responses with moderate to strong effect sizes.[5] Combined with the previously described results of Hypothesis VI, this indicates that there is a great deal of shared variance between the CAD emotions, and that all types of moral violations elicit multiple emotional reactions.

Hypothesis VII: **Do Trait Emotions predict their Corresponding Emotion's Expression Ratings Across all Scenario Types?**

Hypothesis VIIa predicts that trait contempt will positively relate to contempt expression magnitudes across *all* scenario types, and that this relation will be stronger than trait anger and trait disgust's relation to contempt expression ratings. Hypothesis VIIb predicts that trait disgust will positively relate to disgust expression magnitudes across *all* scenario types, and that this relation will be stronger than trait anger and trait contempt's relation to disgust expression ratings. Hypothesis VIIc predicts that trait anger will positively relate to anger expression magnitudes across *all* scenario types, and that this relation will be stronger than trait contempt and trait disgust's relation to anger expression ratings. Succinctly,

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[5] Correlations between moral judgment of the action, the person, and contempt/disgust/anger face ratings were done for each type of moral foundation violation. Both kinds of moral judgment significantly correlated with all three facial expression ratings at $r > .40$, and $p < .001$; with the majority of correlations being $r > .55$.

these hypotheses predict that a facial expression's magnitude mean across *all* scenario types can serve as a measure of that expression's related trait emotion.

These predictions were tested using correlations. Correlations were calculated between trait contempt, trait disgust, trait anger, and the overall means for the contempt, anger, and disgust expressions. Hypothesis IIa will be fully confirmed if the relation between each trait emotion and its corresponding emotion's facial expressions are significant, positive, and if their correlation is greater than the correlations between that facial expression and the other two trait emotions. In the event that multiple trait emotions positively predict one emotion's facial expression ratings, Fisher's R to Z transformation will be used to compare these two correlations; this test can assess whether two correlations are significantly different from one another, and provides a *p* value for this test (Zar, 1999).

Trait contempt omnibus scale. Prior to calculating the correlations, an omnibus trait contempt mean needed to be calculated. Due to limitations on the number of items that this study could reasonably include, several of the original trait contempt items from Study 1 were not included in Study 2 (the removed items mostly coincided with the items identified as having the lowest factor loadings in Study 1). With this in mind, subscales were created in a way that matched the content and structure of the five factors/subscales from Study 1 as closely as possible. Means were calculated for the following five subscales: cold feelings with avoidant action tendencies, feelings of superiority with social

standard violation awareness, psychological distancing, negative dispositional attributions, and derogatory action tendencies.

Internal reliabilities were calculated for each trait contempt subscale, to make sure their internal consistency from Study 1 replicated. The subscales had the following internal consistencies: the cold feelings with avoidant action tendencies (14 items; $\alpha = .90$); feelings of superiority with standard violation awareness (13 items; $\alpha = .90$); negative dispositional attributions (5 items, $\alpha = .88$); psychological distancing (8 items; $\alpha = .80$); and derogatory action tendencies (7 items; $\alpha = .87$). When all five subscales were combined into an omnibus trait contempt scale, they had an acceptable internal reliability ($\alpha = .89$).

Correlations. Correlations were calculated between the omnibus trait contempt scale, trait anger, trait disgust, and the grand means for the facial expression ratings of contempt, anger, and disgust. This correlation table can be found in Table 6. Hypotheses VIIa, VIIb, and VIIc predicted that a facial expression's rating grand mean (across *all* scenario types) could serve as a measure of that expression's related trait emotion. All three predictions were strongly disconfirmed. No facial expression rating mean of *any* kind significantly related to *any* trait emotion at $p < .05$.[6] Instead, all three trait emotions had

[6] However, trait contempt marginally and *negatively* related to disgust face rating means at a marginal $p = .071$.

moderately strong correlations amongst themselves, and all three facial expression rating means had moderately strong correlations amongst themselves.

Discussion of Hypothesis VII: Can facial expression ratings be used as a measure of trait emotions? These abovementioned findings strongly disconfirmed Hypothesis VII, as none of the trait emotions significantly related to *any* of the facial expression ratings. While facial expression photo ratings might still be a potential way to assess trait emotions in some other type of methodology, this clearly was not the case within the context of emotionally responding to moral scenarios. However, it could be the case that any relations between trait emotions and facial expression ratings were diluted due to the scaling of all six moral scenario types. Future analyses on Study 2's data might be merited in respect to the relation between trait emotions and their corresponding facial expression ratings *within* individual scenario types, as opposed to simply using the grand means of each of the emotional expression's ratings. However, some preliminary analyses did not support this, as the majority of relations between trait emotions and facial expression ratings remained non-significant; those that were significant or marginally significant did not match the predicted pattern of results[7].

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[7] Trait contempt marginally but *negatively* predicted contempt ratings towards loyalty scenarios, $r = -.14$, $p = .096$. Strangely, trait contempt significantly and negatively predicted *anger* face ratings within loyalty scenarios, $r = -.17$, $p = .041$, within authority scenarios, $r = -.20$, $p = .022$, and marginally within fairness scenarios, $r = -.16$, $p = .063$. However, in keeping with Hypothesis VII,

Hypothesis VIII: Does Trait Contempt Predict Moral Judgment of Loyalty and Authority Violations?

Hypothesis VIII predicts that trait contempt will positively relate to immorality judgments towards loyalty and authority violation scenarios. This will be tested using two multiple regressions. In both regressions, trait contempt will be treated as the criterion variable[8], and moral judgment means from the following scenario types will be treated as predictor variables: harm, fairness, loyalty, authority, purity, and reciprocity. The first regression will use moral judgments of the *action* as the predictor variables, while the second regression will use moral judgments of the *person* as the predictor variables. Hypothesis VIII will be confirmed if trait contempt is significantly predicted by loyalty and authority immorality judgments towards the moral-violating person, their behavior, or both.

Regression results. The regression model for immorality judgments of behavior was not significant, F (6, 128) = 1.33, p = .248, R^2 = .06. Immorality judgments towards loyalty (β = -.14, p = .427) or authority (β = .15, p = .244)

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trait disgust marginally predicted disgust face ratings, r = .14, p = .068. No other relations between trait emotions and facial expression ratings were significant.

[8] Although the hypothesis specifies trait contempt as the predictor and the six moral violation types as the criterion variables, for the sake of the analysis, trait contempt was entered into the regression as the criterion variable. The regression module in SPSS allows the specification of only one criterion variable; however, because this was a single-step model, the designation of predictor versus criterion is arbitrary and does not affect the direction or magnitude of uncovered effects, and so the reversed variable specification is acceptable.

violating behaviors were not significant predictors of trait contempt within this multiple regression model. Unexpectedly, immorality judgments of fairness violating behaviors negatively predicted trait contempt, (β = -.27, p = .018). Immorality judgments of all other categories of violating behavior did not significantly predict trait contempt.

The regression model for immorality judgments of the person was *not* significant, F (6, 130) = 1.54, p = .170, R^2 = .07. Immorality judgments towards loyalty (β = -.20, p = .107) and authority (β = .122, p = .387) violating persons did not significantly predict trait contempt. Similarly to moral judgments of behavior, immorality judgments of fairness violating persons negatively predicted trait contempt (β = -.28, p = .017). No other types of moral violation behaviors predicted trait contempt. Thus, Hypothesis VIII was fully disconfirmed.

Discussion of Hypothesis VIII: Does trait contempt predict immorality judgments towards loyalty and authority violations? The results from Hypothesis VIII indicated that trait contempt did not predict authority or loyalty judgments. However, it might be the case that the analytical strategy I proposed – multiple regression with six predictor variables – could have masked any legitimate association between trait contempt and loyalty/authority judgments. Specifically, because regressions control for the common variance among the predictor variables, the shared variance between the two types of community violations (loyalty and authority) may have been "wiped out" by the regression; if this is the case, the addition of the other four scenario types as predictors likely exacerbated this problem, particularly given that loyalty,

authority, and purity values are highly intercorrelated (e.g., Graham et al., 2011). However, although the problem of excessive common variance within the model can account for why both of the overall regression models had a non-significant R^2, this is unlikely to explain the null results. Correlations from a side analysis indicated that neither moral judgments of authority nor loyalty violations significantly related to this study's trait contempt instrument.[9] Thus, a lack of a substantial association between trait contempt and loyalty/authority judgments is the most plausible explanation of the null results. In broad terms, this may provide further evidence that trait and state emotions function differently in their relation to the moral foundations.

Hypothesis VIII did result in one curious finding; trait contempt negatively associated with fairness judgments, indicating contemptuous people might be less likely to view non-egalitarian outcomes as immoral. Intuitively, this makes sense, particularly in regard to feelings of superiority and a lack of empathy or warmth towards others; perhaps those high in trait contempt may view others as unworthy or undeserving of fair/equal outcomes. Additional analyses or

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[9] In correlations, moral judgments of authority violations did not significantly correlate with the omnibus trait contempt instrument, any of its five individual subscales, or the Izard trait contempt instrument. In contrast, the cold feelings/avoidant action tendency subscale and Izard's trait contempt instrument did *negatively* associate with moral judgments of loyalty violations. However, the omnibus trait contempt scale and all other individual subscales were not significantly associated with loyalty judgments.

future studies on this finding could prove interesting; especially considering that trait contempt did not correlate with fairness *values* in Study 1.

Discussion: Study 2 Limitations

One possible limitation in Study 2 could be the nature of the moral scenario materials. While most of the scenarios were adapted from existing materials, the literature does not appear to have any validated or standardized set of third-person scenarios depicting moral foundation violations. As such, there is some risk that certain scenarios may portray violations of multiple moral domains. For instance, a reciprocity scenario describes a person whose friend helps them move, but who then refuses to help the friend move at a later time. While this is clearly a reciprocity violation, it also may incorporate a loyalty violation as well (i.e., the betrayal of a friend). Given this possible ambiguity within some scenarios, the inclusion of manipulation checks, which assessed specific domain violations, may have been beneficial; however, this was not feasible given the large size of the survey.

Another limitation of the present study was that emotion ratings within each moral foundation type often had only moderate internal reliabilities; this indicated that the three individual scenarios within each moral violation type did not always elicit similar magnitudes of any given emotion. If emotion ratings varied enough within certain moral scenario types, this could have potentially contributed to the pattern of results seen in Hypothesis VI, such that the CAD emotions tended to be elicited in statistically similar magnitudes. In combination with the previously described limitation of potentially having multiple moral

domains being violated within some scenarios, some additional analyses of the present study's data would be merited to determine if this was indeed an issue. Additional analyses could explore emotional reactions towards each individual scenario. If certain scenarios could be interpreted as depicting violations of multiple moral domains, it may be the case that these scenarios are more likely to have non-significant differences between the CAD emotions; in contrast, if a scenario clearly only portrays the violation of one moral foundation, then the CAD pattern may emerge a bit more cleanly in some cases.

The final limitation of Study 2 was that loyalty and authority scenarios did not elicit strong negative emotional reactions; on average, these scenario types' contempt, anger, and disgust ratings were all below the midpoint. As such, it may be the case that the specific scenarios used in this study did not elicit a sufficiently strong enough emotional reaction from participants, which may have reduced the ability to detect significant differences between contempt, anger, and disgust responses. However, it was difficult to either find or create a severe loyalty or authority violation scenario that did not include tangible harm or unfairness to one or more individuals, which would lead to the problem of the scenario not being a "pure" violation of one specific domain. Additionally, the potentially low severity of the loyalty and authority scenarios may have been unavoidable, given the nature of the sample. Specifically, the M-Turk participants were all from the United States, and the majority were politically liberal. According to previous studies on Moral Foundations Theory, Western liberals tend to place little value

on the loyalty and authority foundations, and may not even view them as moral violations to begin with (Graham et al., 2011; Haidt, 2012; Haidt et al., 2009).

General Discussion

This thesis had several overall goals. Its overarching goal was to test whether the CAD model applies to moral foundations theory in regard to both trait and state contempt; specifically, it was predicted that both trait and state contempt would positively relate with the loyalty and authority foundations. Study 1's primary goal was to develop a new comprehensive and construct-valid trait contempt instrument, and to subsequently use this new instrument to test the relations between trait contempt, loyalty, and authority values. This goal was largely met, as the comprehensive trait contempt instrument showed strong signs of construct validity; however, trait contempt did *not* match the CAD pattern in regard to loyalty and authority values. Study 2's primary goal was to test whether state contempt is predominately elicited by loyalty and authority violations, by using a facial expression rating paradigm similar to that used in the original CAD study. The face-rating paradigm was an effective methodology; however, its results indicated that the CAD pattern did not apply to state contempt.

With the results of both Study 1 and 2 in mind, several observations can be made about the nature of contempt as a personality trait, as an emotion, and its relation to moral values and judgment. First, although this project's findings have supported the view that contempt can be measured in a way that avoids the semantic confounds of the word "contempt," trait contempt has still proven difficult to assess in a simple and practical manner. Second, although trait

contempt was found to be significantly associated with certain types of moral values and judgments, these relations did not at all correspond with the CAD pattern. Third, trait contempt's general discriminant validity from trait anger and disgust was not fully demonstrated; this may be due in part to the multidimensional nature of trait contempt (see Study 1, Hypothesis III). However, it may also be due to limitations of the trait anger and trait disgust measures used in this study. Similarly, state contempt's discriminant validity from state anger and disgust as a predictor of moral judgment – and perhaps even as an emotion in general – was difficult to confirm. Finally, as the conclusion of this paper, the overall applicability of the CAD model to the five moral foundations is discussed.

Contempt can be Measured, but doing so is still Difficult

One of the primary challenges in this project, and indeed in almost all studies that assess contempt, is the ambiguous nature of the emotion (Haidt, 2003). In order to circumvent the semantic confounds typically associated with directly asking people to report their "contempt," Study 1 made use of contempt's associated elicitors, cognitions, affective experiences, and action tendencies as a way to triangulate on this emotion. Study 2 used ratings of contempt's facial expression as an alternative way to assess the emotion. Both approaches were successful in that they indicated that both trait and state contempt significantly relate to different types of moral values and judgments, albeit not in the predicted ways. However, contempt's problematic ambiguity still seemed to be at play in both studies.

Limitations of the comprehensive trait contempt instrument. In its current state, the comprehensive trait contempt instrument is an excellent first step in creating a construct-valid instrument suitable for use in future studies. Additional analyses of the Study 1 and 2 data can help trim the instrument to a considerable degree; however, even if the number of items are cut by half, the instrument may still contain too many items to include in most studies, unless such studies specifically focus on contempt. Another possibly related limitation of the instrument in its current form is that not all subscales contributed to the construct equally (as shown in the confirmatory factor analysis of Study 1, Hypothesis II). Therefore, simply using the means of the subscales to make an omnibus scale may not be theoretically appropriate, as this method uses the assumption that all of the subscales are weighted relatively equally. One possible strategy to address both of these limitations might be to take all reliable items from each subscale and put them into a large confirmatory factor analysis. This model would use these individual items as predictors of the overall latent trait contempt construct. This approach would be optimal in that it will provide information on which items best represent the trait contempt construct itself. These "best representative" items could then subsequently be used to create a short-form version of the instrument.

Trait contempt and discriminant validity. One limitation of this thesis was that trait contempt's discriminant validity from trait anger and disgust could not be fully confirmed. Although trait contempt's dimensions pertaining to interpersonal and emotional coldness had clear discriminant and convergent

validity, its dimensions pertaining to other-criticalness did not appear to have discriminant validity from trait anger and disgust. These results could potentially indicate that other-critical dimensions are not unique to trait contempt, and may instead relate to a general trait negativity factor. However, within the context of moral values and judgment, trait contempt did appear to have unique characteristics; it was the only trait emotion negatively associated with loyalty values, uniquely associated with harm/care values[10] (Study 1) and uniquely associated with fairness judgments (Study 2). These findings may provide indirect support for trait contempt's discriminant validity.

However, there may be an alternative explanation for the comprehensive trait contempt scale's lack of discriminant validity. It might be the case that Izard's trait emotion instruments were simply too shallow to provide much unique variance; they contained only three anger items, three contempt items, and two disgust items in Izard and colleagues' trait emotion instruments, and they tended to assess only one dimension for each trait emotion. With this in mind, a future study that further explores the trait contempt scale's discriminant validity would be merited, which should incorporate more comprehensive and multidimensional trait disgust and anger instruments, or even multiple instruments for each. Good

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[10] This was found in a side analysis of the Study 1 data. A multiple regression used this study's trait contempt scale and Izard's trait anger and disgust scales as predictors of harm/care values. Only trait contempt significantly predicted lower levels of harm/care values, with a moderate effect size ($\beta = -.31$, $p < .001$, model $R^2 = .25$).

candidates for inclusion would be the Disgust Scale – Revised (Haidt, McCauley, & Rozin, 1994; modified by Olatunji, Haidt, McKay, & David, 2008), and the Trait Anger Expression Inventory (Spielberger, 1996). Discriminant validity from trait *empathy* would also be important to explore, given that the coldness and psychological distancing aspects of contempt are qualitatively similar to low levels of empathy. Thus, including the Empathic Concern and Perspective Taking subscales of the Interpersonal Reactivity Index (IRI; Davis, 1983) would be worthwhile in future research.

Do facial expression ratings indicate that contempt is distinct from anger and disgust? Certain bodies of the emotion literature strongly indicated that contempt's facial expression is unique and cross-culturally recognizable (e.g., Ekman et al. 1991) and that this expression can be used to assess discrete contempt reactions towards moral violations more accurately than the word "contempt" (Rozin et al., 1999). The results of Study 2 made these assumptions difficult to support or reject. Ratings of all three facial expressions shared a substantial amount of variance, and contempt was nearly always statistically similar to both emotions. However, it is not clear whether this indicates that the contempt expression was not being perceived as distinct from the other expressions, or whether this finding was specific to reactions towards moral violations. On the other hand, these results do seem to indicate that contempt is *not* merely a low-arousal variant of the anger or disgust expression (e.g., Russell, 1991b; Wagner, 2000), given that it never had the lowest magnitude across any of the scenarios. Given the scope of this study, a conclusion likely cannot be drawn

about the validity of the contempt expression as a more direct means of assessing contempt reactions to social violations. This would likely require assessing participants' reactions towards substantially broader categories of moral and non-moral violations.

While the results could indicate something about whether the expression itself is unique or not, aspects of this study's methodology or the legitimate pattern of the results could have contributed to the emotional similarity results just as plausibly. As such, the specific reason for these results was difficult to ascertain. It could be that this was driven by semantic confounds; the name of each emotion was placed above the photograph, potentially leading participants to conflate the emotions by using the emotion words as their decision criteria rather the photograph on its own. Alternatively, it could be that the general lack of distinction between contempt and the other emotions was driven by something unique about the relations between the CAD emotions and moral violations (i.e., that they do not strongly and uniquely associate with certain types of moral violations in the ways described in previous studies). Additional studies that make use of the contempt expression with varied measurement methods may be needed to make an informed conclusion (e.g., comparing categorical choice to quantitative ratings; comparing photo with name to photo alone).

Contempt and Moral Values

Contempt's negative relation to loyalty values is interesting, but its negative relation to the harm/care and fairness foundations is of even greater theoretical interest. Although these relations do not match the CAD pattern, they

make a great deal of intuitive sense. Further research on the moral values (or lack thereof) of contemptuous people may be particularly fruitful along these lines. It may be the case that trait contempt and other trait emotions associate differently with moral values than they do with moral judgments. This is because the pattern of results between trait contempt and moral values (Study 1) was not the same pattern as that found between trait contempt and moral judgments (Study 2). Specifically, trait contempt negatively related to harm/care *values* in Study 1, but negatively related to fairness *judgments* in Study 2.

Future Studies with Trait Contempt

Given that this study's trait contempt instrument appeared to have high construct validity, there are many additional types of instruments that could be included along with trait contempt in future studies. For instance, the five moral foundations are strongly related to political ideology (Graham et al., 2011), so a natural extension of this project could be to explore the relations between trait contempt and ideology. Side analyses did indicate an association between Crowley's trait contempt expression instrument and economic conservatism[11], so the inclusion of more comprehensive and multidimensional measures of ideology in a future study could yield interesting results.

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[11] Several side analyses indicated that Crowley's trait contempt expression instrument (but not its subscales) significantly predicted economic conservatism; however, Izard's trait contempt and this study's trait contempt instrument (including its individual subscales) did not significantly predict any type of conservatism.

Given that contempt involves emotional coldness, feelings of superiority, and a lack of empathy towards the target, it may potentially relate to social dominance orientation (SDO). This is because SDO is characterized by feelings of superiority at the group level (Pratto, Sidanius, Stallworth, & Malle, 1994). Additionally, persons high in SDO also tend to be emotionally cold and low in sympathy and empathy in terms of personality (Altemeyer, 1998; Heaven & Bucci, 2001). SDO relates to prejudice and discrimination (Pratto et al., 1994); therefore, trait contempt's relation to these prejudice and discrimination would also be worthwhile investigate. In a similar fashion, trait contempt may potentially relate to system justification motives, because both constructs strongly involve negative dispositional attributions and superiority judgments (Jost, Glaser, Kruglanski, & Sulloway, 2003). Additionally, some research has linked contempt with attitudes such as tolerance of political violence (Tausch et al., 2011); as such this area would be very worthwhile to explore. Given the wide range of topics that personality traits can be applied to, trait contempt can be studied in relation to a diverse array of other areas of psychology, such as prejudice, discrimination, dehumanization, just world beliefs, system justification, interpersonal relationships, clinical disorders (e.g., sociopathy or narcissism), and many more.

Conclusion

The underlying question of this project was whether Rozin and colleagues' CAD hypothesis (1999) mapped onto the five moral foundations, and whether trait emotions predict moral values in the same fashion that state emotions predict moral judgments in the CAD model. This project's unique contributions come

from its focus on trait contempt as a predictor of moral foundation values, and its focus on both trait and state contempt as a predictor of judgments towards moral foundation violations. These had not yet been explored in similar types of studies. However, given that little comprehensive research has been done on contempt as an emotion, and barely any research had been done at all in regard to *trait* contempt, defining a valid construct for both state and trait contempt that incorporated more recent findings in the emotion literature was an essential first step to testing contempt's relations to the five moral foundations. Given that the results of Study 1 and 2 both indicated relatively strong construct validity of the trait contempt instrument, this is perhaps the most unique contribution of this project. Almost no studies have explored trait contempt's relation to other constructs; thus, having a valid trait contempt instrument available may open the door to a wide range of new research opportunities related to existing constructs and phenomenon in social psychology.

Although results relating to trait contempt as a construct were generally promising, the primary predictions regarding its relation to loyalty and authority values were not supported in the results. Trait contempt did not significantly associate with authority values in Study 1 after accounting for trait anger and disgust; nor did it significantly associate with authority judgments in Study 2. Although trait contempt did associate with loyalty values in Study 1, this relation was negative; trait contempt did not significantly associate with loyalty judgments in Study 2. There were also interesting negative relations between trait contempt and harm/care values in Study 1 and fairness judgments in Study 2, the results

across both studies strongly indicated that contemptuous people are not more likely to have authority or loyalty values, nor are they more likely to judge authority violations harshly. If anything, the opposite appeared to be the case. Broadly, these results indicated that the CAD model does not apply in regard to trait emotions and the moral foundations.

Finally, the results of this project may cast doubt on the conclusions of the CAD study (Rozin et al., 1999). Although moral foundations theory was primarily derived from the moral taxonomy used in the original CAD study (Shweder's three ethics; Shweder et al., 1997), the results indicated that the CAD model generally does *not* neatly map onto the five moral foundations, particularly in regard to contempt. Furthermore, this project's findings conflicted with the proposition that specific categories of moral violations elicit discrete emotional responses; instead, it appeared that most moral violations elicit multiple negative emotional responses, which are often (but not always) similar in magnitude. However, in summation, the results of this project indicate that contempt, and particularly *trait* contempt, may have a unique influence on other types of moral values and judgments which do not fit the CAD pattern, which is a promising avenue for future research.

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Table 1.

Correlation table used in Study 1, Hypothesis II: Does each subscale load onto to a latent trait contempt construct?

	Cold Feelings & Avoidant Action Tendencies	Superiority & Social Standards	Negative Dispositional Attributions	Psycho-logical Distancing	Derogatory Action Tendencies
Cold Feelings & Avoidant Action Tendencies	1				
Superiority & Social Standards	.413*	1			
Negative Dispositional Attributions	.672*	.498*	1		
Psycho-logical Distancing	.747*	.518*	.690*	1	
Derogatory Action Tendencies	.562*	.470*	.527*	.552*	1

Note. * = correlations were significant at $p < .001$. Correlations were not rounded to two decimals in order to duplicate the table used in the confirmatory factor analysis. $N = 503$ after listwise deletion.

Table 2.
Parameter estimates for the confirmatory factor analysis in Study 1, Hypothesis II: Does each subscale load onto to a latent trait contempt construct?

Parameter	**Loadings**	***SE***	**Error Variance**		
	Λ	**δ**	**ζ**	**ζ_{δ}**	**R^2**
Psychological Distancing	.87	.04	.29	.04	.72
Coldness & Avoidant AT	.83	.04	.28	.04	.71
Negative Attributions	.75	.04	.30	.03	.65
Derogatory AT	.69	.04	.63	.03	.43
Superiority & Social Standards	.49	.04	.41	.03	.37
Error Correlations		**δ**	**Error Covariance (θ_{δ})**		
Coldness/Avoidant & Psychological Distancing		.03	.06		
Cold/Avoidant & Superiority / Social Standards		.02	.03		
Superiority/Social Standards & Derogatory AT		.03	-.08		

Note. Confirmatory factor analysis results report *t* statistics as opposed to *p* values. Each path and error covariance was significant at $p < .05$.

Table 3. Correlation table of the variables used in the principle components described in Study 1, Hypothesis III: Does the comprehensive trait contempt instrument have convergent and discriminant validity?

	1	2	3	4	5	6	7	8	9	10	11
(1) Negative Attributions	1.00										
(2) Psychological Distancing	.684	1.00									
(3) Derogatory Actions	.515	.545	1.00								
(4) Superiority & Standards	.496	.509	.474	1.00							
(5) Coldness and Avoidance	.661	.741	.552	.398	1.00						
(6) Comprehensive Contempt	.832	.871	.779	.692	.842	1.00					
(7) Izard's Trait Contempt	.477	.558	.560	.468	.586	.661	1.00				
(8) Izard's Trait Anger	.430	.467	.627	.516	.501	.632	.614	1.00			
(9) Izard's Trait Disgust	.376	.423	.469	.384	.487	.534	.615	.618	1.00		
(10) Crowley's Coldness	.454	.507	.320	.204	.700	.551	.437	.333	.316	1.00	
(11) Crowley's Expression	.360	.472	.364	.189	.600	.502	.455	.317	.361	.567	1.00

Note. Listwise deletion was used in these correlations (N = 472). All correlations were significant at $p < .001$.

Table 4.

Correlation table used for the path model described in Study 1, Hypothesis V: Does this study's trait contempt instrument predict loyalty and authority values better than Izard's and Crowley's?

	Loyalty Values	Authority Values	Izard's Trait Contempt	Crowley's Trait Contempt	Study 1 Trait Contempt
Loyalty	1				
Authority	.674***	1			
Izard TC	.008	-.008	1		
Crowley TC	-.012	-.044	.527***	1	
Study 1 TC	-.103*	-.083^{m}	.671***	.587***	1

Note. * = $p < .05$, *** = $p < .001$, *m* = marginally significant at $p < .10$. $N = 460$ after listwise deletion.

Table 5.

Facial expression magnitude ratings for contempt, anger, and disgust within each moral scenario category, as referred to in Study 2, Hypothesis VI.

Scenario Type	Facial Expression Rating					
	Contempt		Anger		Disgust	
	M	95% CI	*M*	95% CI	*M*	95% CI
Harm	4.47^{a1}	[4.24, 4.70]	4.75^{a1}	[4.56, 4.93]	4.53^{a1}	[4.33, 4.74]
Fairness	5.04^{ab2}	[4.76, 5.32]	5.31^{a2}	[5.07, 5.54]	4.77^{b1}	[4.49, 5.05]
Reciprocity	4.91^{ab123}	[4.65, 5.17]	4.92^{a12}	[4.68, 5.17]	4.41^{b1}	[4.14, 4.68]
Loyalty	3.68^{a}	[3.38, 3.97]	3.51^{a3}	[3.20, 3.82]	3.42^{a2}	[3.11, 3.73]
Authority	4.28^{a14}	[4.01, 4.55]	4.09^{a4}	[3.82, 4.37]	3.73^{a2}	[3.44, 4.03]
Purity	4.46^{a134}	[4.16, 4.76]	3.85^{b34}	[3.54, 4.17]	6.08^{c}	[5.90, 6.26]

Note. Within-scenario comparisons are notated with superscripted letters (a, b, c) across each row. Any means within a single row which share a superscript letter are *not* significantly different. Between-scenario comparisons are notated with superscripted numbers (1-4) down each column. Any means within a single column which share a superscript number are *not* significantly different. Means between columns and/or between rows were not compared.

Table 6.

Correlation table used to test Study 2, Hypothesis VII: Can facial expression ratings towards moral violations be used as a measure of trait emotions? The answer is “no.”

	Trait Contempt	Trait Anger	Trait Disgust	Contempt Face	Anger Face	Disgust Face
Trait Contempt	1					
Trait Anger	.688*	1				
Trait Disgust	.509*	.622*	1			
Contempt Face	-.108	.046	.072	1		
Anger Face	-.079	.016	.090	.596*	1	
Disgust Face	-.156^{M}	-.007	.037	.533*	.789*	1

Note. Asterisk (*) indicates significance at $p < .001$. An “M” superscript indicates marginal significance at $p = .071$. Correlations without superscripts were not significant. *N* per cell varied (134-168) due to pairwise deletion.

Figure 1. Two photos of the contempt facial expression (Getty Images, 2014; Matsumoto & Ekman, 1988). The contempt expression is characterized by a unilateral smirk and tightening of the lip, i.e. Ekman's action unit 14 (Ekman, 2007; Ekman & Friesen, 1975). (Photos redacted due to copyright).

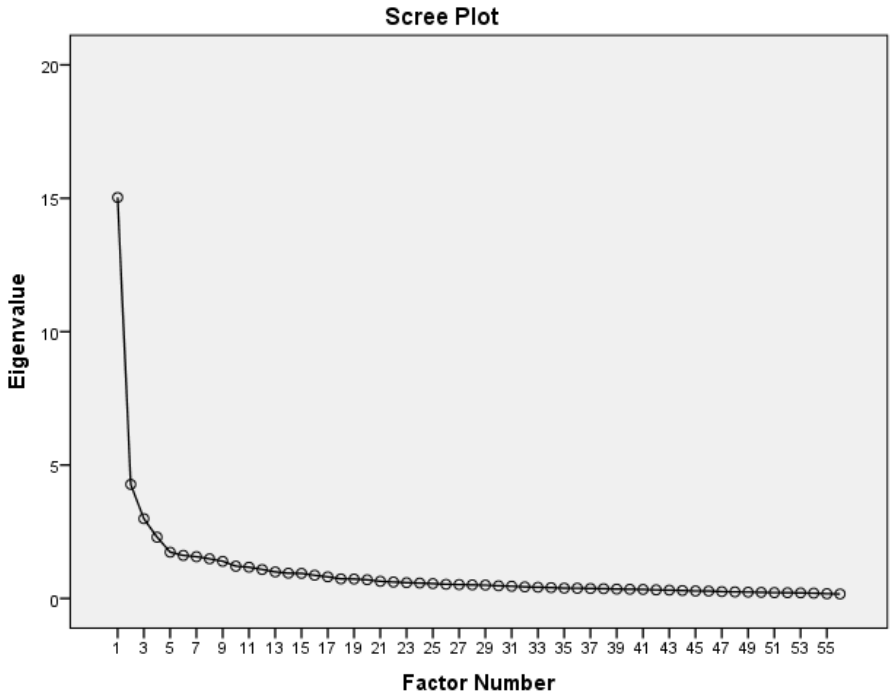


Figure 2. Scree plot from the initial exploratory factor analysis; Study 1, Hypothesis I. The plot indicates that five factors was the point of discontinuity.

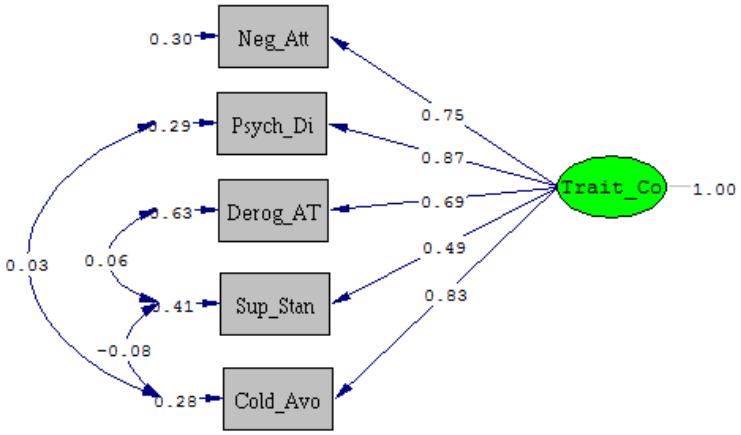


Figure 3. Results of the confirmatory factor analysis; Study 1, Hypothesis II. All five subscales/factors significantly contributed to a latent trait contempt construct, with moderate to strong effect sizes. All paths were significant at $p < .05$.

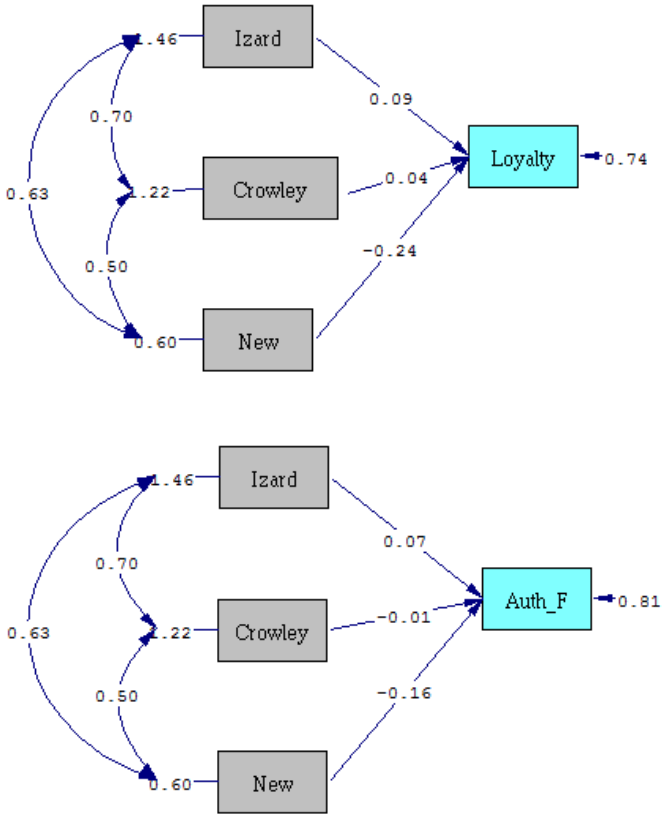


Figure 4. Path model results for Study 1, Hypothesis V. The top figure shows paths to loyalty values (model 1), and the bottom figure shows paths to authority values (model 2) values. In model 1, all three paths were significant predictors of loyalty values at $p < .05$. In model 2, all three paths were significant predictors of authority values at $p < .05$. In both cases, this study's trait contempt instrument was the strongest predictor; however, contrary to predictions, the direction of each relation was negative.

Figure 5. Photos used as dependent variables in the facial expression rating task (Matsumoto & Ekman, 1988). From left to right, these expressions depict contempt, anger, and disgust. **(Photos redacted due to copyright)**

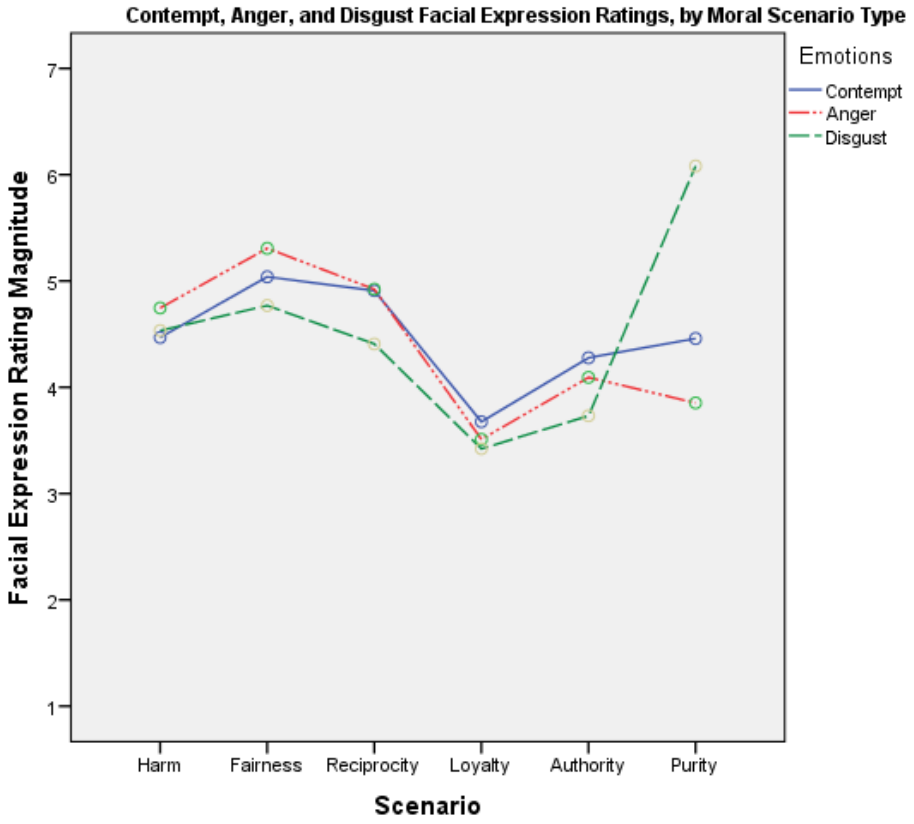


Figure 6. Graph of facial expression rating means, group by moral scenario type. This summarizes the results for Hypothesis VI in Study 2: Does the CAD hypothesis apply to the moral foundations?

Appendix A

Trait Contempt Questionnaire

Increased Awareness of Social Standard Violations Subscale

Prompt: How often do you notice strangers or acquaintances doing the following in your day-to-day life?

1-A) Not behaving how they should

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

1-B) Behaving better than I expect them to (R)

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

1-C) Being incompetent at what they are doing (for example: their job, schoolwork, tasks, etc.)

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

1-D) Doing their job better than I expected them to (R)

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

1-E) Being inconsiderate

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

1-F) Being considerate of other people (R)

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

1-G) Acting inappropriately

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

1-H) Breaking an important "unwritten rule"

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

Frequent Inferiority-Superiority Judgments Subscale

Prompt: Compared to you, how often do you see strangers and acquaintances acting or being…

2-A) Stupid

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

2-C) Incompetent

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

2-D) Careless

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

2-E) Irresponsible

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

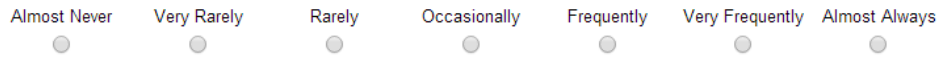
2-F) Smart (R)

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

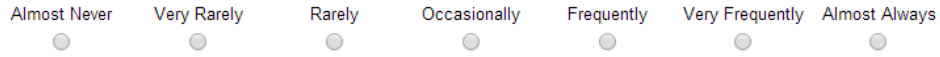
2-H) Capable (R)

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

2-I) Careful (R)



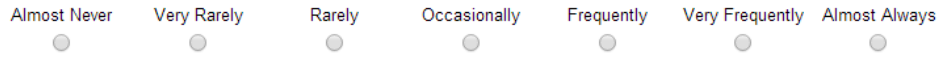
2-J) Responsible (R)



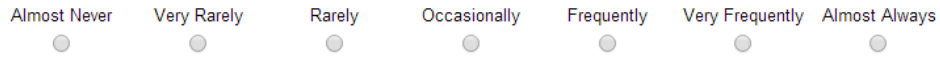
Increased Negative Dispositional Attributions Subscale

Prompt: In your day-to-day life, how often do you find yourself doing the following?

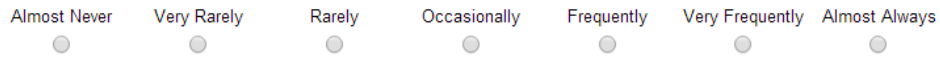
3-A) I judge others positively (R)



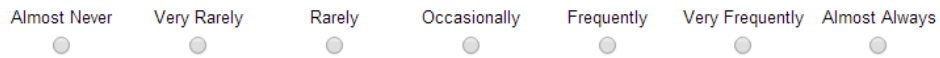
3-B) Before judging someone, I think about what circumstances might have caused their behavior (R)



3-C) I assume that someone's good behavior reflects something about their character (R)



3-D) I judge others negatively



3-E) If someone is in a bad situation, I think that it's probably their own fault

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

3-F) I assume someone's bad behavior reflects something about their personality

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

3-G) I make an effort to give people the benefit of the doubt (R)

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

3-H) I assume that someone is a good person (R)

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

Derogatory Action Tendencies:

Prompt: How often do you do the following behaviors in your day to day life?

4-A) I talk about other peoples' bad qualities

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-B) At the end of the day, I feel the need to unload about all the stupid stuff I saw other people do

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-C) I avoid talking about people behind their back (R)

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-D) I complain about people that I don't like

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-E) I avoid being critical of others (R)

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-F) I talk about peoples' good qualities (R)

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-G) I feel like rolling my eyes at somebody

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-H) I feel like cursing at somebody under my breath

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

Socially Aversive Action Tendencies:

4-A) If someone I don't like is coming my way, I ignore them

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-B) I make an effort to be polite with people who I don't like (R)

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-C) I shut people out when they disappoint me

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-D) I give people the "cold shoulder"

Almost Never Very Rarely Rarely Occasionally Frequently Very Frequently Almost Always

4-E) I take efforts to include everyone in big group activities or outings, even if I don't particularly like them (R)

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

4-F) I treat people in a cold or "icy" way

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

4-G) I treat people warmly (R)

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

4-H) I drop people from my social circle

Almost Never | Very Rarely | Rarely | Occasionally | Frequently | Very Frequently | Almost Always

Cold Feelings: (intense or "icy" feelings of dislike)

Prompt: How strongly do you agree or disagree with the following statements?

5-A) Others consider me a cold person

Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree

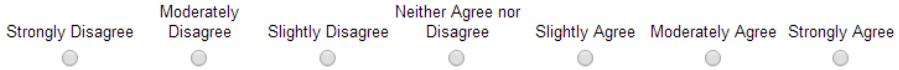
5-B) Others consider a warm person (R)

Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree

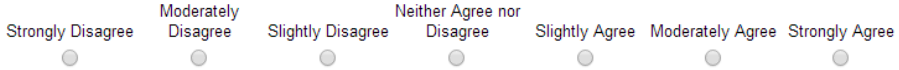
5-C) It doesn't take much for me to dislike someone

Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree

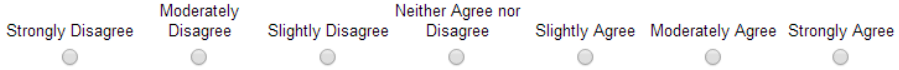
5-D) There are very few people that I strongly dislike (R)



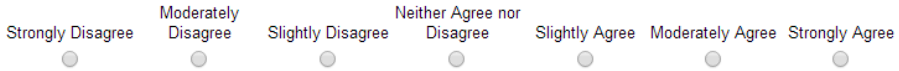
5-E) It would be hard for me to come up with a list of people that I loathe (R)



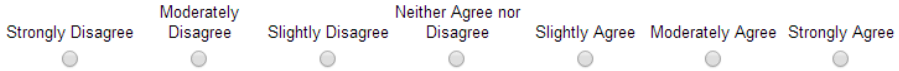
5-F) I have cold or "icy" feelings towards many people



5-G) I feel disdain towards the "average person"

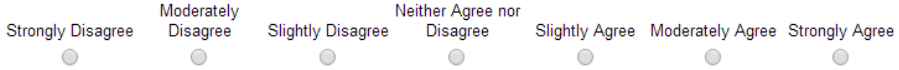


5-H) I don't detest anybody (R)

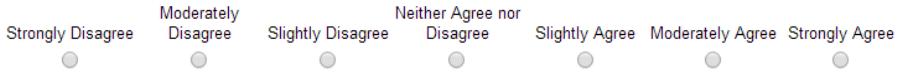


<u>Psychological distancing: (quick to lose empathy, warmth, or respect for others)</u>

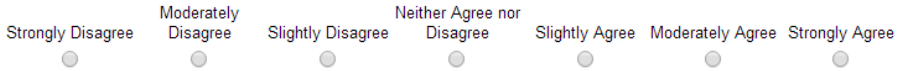
5-A) It is easy for me to lose respect for a person



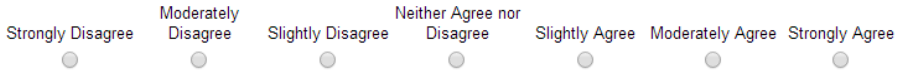
5-B) It is easy for me to "forgive and forget" (R)



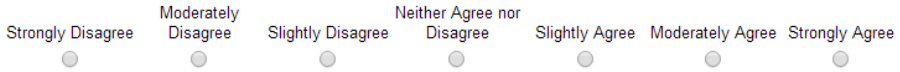
5-C) I have little sympathy for people who can't get their act together



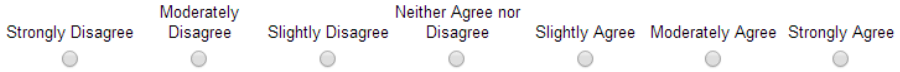
5-D) I expect most people to disappoint me



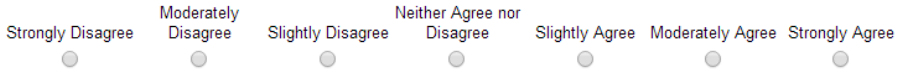
5-E) I have low expectations for people.



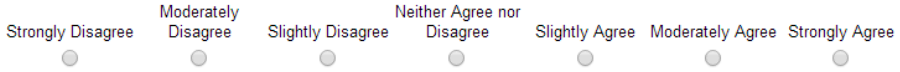
5-F) I like the majority of people that I meet (R)



5-G) People have to really screw up to earn my disapproval (R)



5-H) If someone disappoints me, I am very willing to give them another chance (R)



Appendix B

Example of the facial expression rating task.

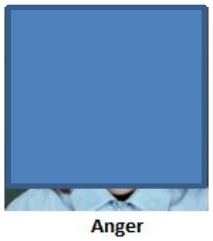
(Photos redacted due to copyright)

Scenario: *A teenage girl gets into an argument with her father after she refuses to do a small household chore that he asked her to do. During the argument, the teenaged girl curses at her father, to his face.*

Instructions: Imagine that you actually witnessed this event. Please rate how strongly you would feel each of the following emotions towards the *teenage girl* described in the scenario. If you would not feel any emotion at all – or if you would feel an emotion not listed below – please choose "not at all" for all three emotions. Do not be concerned about how often you give any particular expression a high or low rating throughout this task.

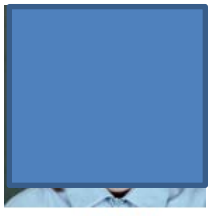
Contempt

Not at all Somewhat Quite a lot Very much



Anger

Not at all Somewhat Quite a lot Very much

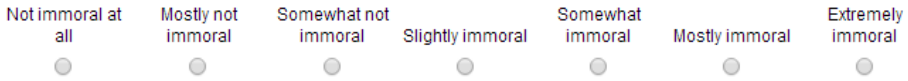


Disgust

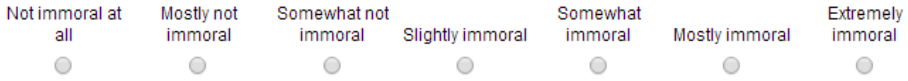
Not at all Somewhat Quite a lot Very much

Instructions: Please answer the following questions about the above scenario.

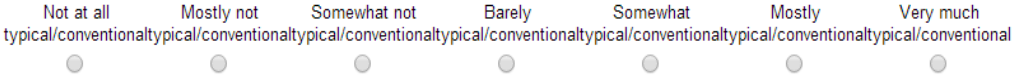
1) How immoral is this behavior?



2) How immoral is the person who engaged in this behavior?



3) Regardless of moral or immoral, were the teenage girl's actions "conventional"—in other words, did he do something that people typically do or consider appropriate in our society?



Appendix C

The moral scenarios used in facial expression rating task.

(Quotation marks, references, and page numbers did not appear in the actual survey)

Harm/Care scenarios:

Richard sees a stray dog in an alleyway. He walks up to the stray dog and "kicks" it "in the head, hard"

(Graham & Haidt, 2012, p. 28).

Jill makes "cruel" and insulting "remarks to an overweight man about his appearance" in order to hurt his feelings.

(Graham & Haidt, 2012, p.28).

Bill purposefully stomps "on an anthill, killing thousands of ants" (Graham et al., 2009, p. 1045).

Fairness (non-reciprocity):

During an election, a local election worker "throws out a box of ballots" in order "to help her favored candidate win" (Graham & Haidt, 2012, pg. 28).

John, a local business owner, only hires white men for new positions, even when women and racial minority applicants are significantly more qualified (Graham & Haidt, 2012).

Bob goes to a poker game, where people play cards for money. Bob cheats in order to win most of the money (Graham & Haidt, 2012).

Reciprocity:

Jason *unofficially* works at a construction job and gets paid $25 per hour *in cash*. Because there is no record of him being employed or having an income, he also collects Medicaid, food stamps, and unemployment benefits.

In a college class, Amy is assigned to a 4-person team for a big group project. She skips all group meetings and does not make any contribution to the project. However, she still gets an "A+" because everyone else in the group worked extra hard.

Bill has an acquaintance that helped him move into a new apartment last month. Later, the acquaintance asks Bill to return the favor and help him move into a new apartment. However, Bill refuses to help (Graham & Haidt, 2012).

In-Group/Loyalty:

Will is about to inherit a very large amount of money. In order to avoid paying estate taxes on it, Will decides to renounce his US citizenship and "become a citizen of another country"

(adapted from Graham & Haidt, 2012, p.28).

"A woman is cleaning out her closet, and finds her old American flag. She doesn't want it anymore, so she cuts it up into pieces and uses the rags to clean her bathroom" (Haidt, Koller, & Dias, 1993, p. 617).

Steve is a US citizen. He calls into a radio show hosted in France, which asks for audience opinions. He harshly criticizes US citizens, culture, and government, and praises France for being a superior country.

(adapted from Graham & Haidt, 2012).

Authority:

Robert is in the audience when the President of the United States is making an official speech. Robert interrupts the speech by heckling and yelling insults at the President.

(loosely based on Graham & Haidt, 2012)

A teenage girl gets into an argument with her father after she refuses to do a small household chore he asked her to do. During the argument, the teenaged girl curses at her father, to his face.

(loosely adapted from Graham & Haidt, 2012).

Jane is a university student. She is texting during one of her classes, instead of listening. When the professor asks her to stop texting, she raises her middle finger at the professor.

(Graham & Haidt, 2012).

Purity:

(Haidt, Koller, & Dias, 1993, p. 617).

“A family's dog was killed by a car in front of their house. They had heard that dog meat was delicious, so they cut up the dog's body and cooked it and ate it for dinner”

“A man goes to the supermarket once a week and buys a dead chicken. But before cooking the chicken, he has sexual intercourse with it. Then he cooks it and eats it.”

“A brother and sister like to kiss each other on the mouth. When nobody is around, they find a secret hiding place and kiss each other on the mouth, passionately.”