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The Moral Compass of Insecurity: Anxious and Avoidant Attachment Predict Moral Judgment

Spassena Koleva¹, Dylan Selterman², Ravi Iyer¹, Peter Ditto³, and Jesse Graham¹

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Abstract

Three studies examined the associations between relational adult attachment and moral judgment. Study 1 shows that attachment-related anxiety and avoidance are uniquely and differentially related to moral concerns. Relative to low insecurity, higher avoidance was associated with weaker moral concerns about harm and unfairness, whereas higher anxiety was associated with stronger moral concerns about harm, unfairness, and impurity. Study 2 replicates these associations and shows that the effect for harm and fairness is mediated by attachment differences in empathic concern, whereas the effect for purity is mediated by disgust sensitivity. Furthermore, using an alternative measure of moral judgment we replicate the negative association between avoidance and harm concerns. Study 3 unpacks fairness judgments into three subcomponents and shows that even at this level avoidance and anxiety show divergent associations. Future directions for empirical examinations of morality and attachment are discussed.

Keywords

morality, attachment, moral judgment, close relationships, emotion

The scientific study of morality is undergoing a “multidisciplinary renaissance” (Haidt & Kesebir, 2010, p. 797), which has shed light on morality’s relation to a host of biological, cognitive, social, and cultural phenomena. However, the majority of empirical research has focused on how individuals’ judgments of right and wrong are modulated by aspects of the immediate context (e.g., Schnall, Haidt, Clore, & Jordan, 2008), with less attention paid to individual-level relational variables, such as working models of attachment relationships (Bowlby, 1969/1982). It is ironic that relationship research has not had a substantial impact on moral psychology as morality is social at its very core; motivated by social concerns with suppressing selfishness and promoting group cohesion, much of morality is about how people should relate to others. Recent theoretical innovations have linked attachment with morality (Shaver & Mikulincer, 2012), but it is not yet known whether or how different attachment styles empirically relate to different types of moral concerns and judgments. In this article, we present the first evidence that variation in attachment anxiety and avoidance differentially predicts individual conceptions of morality and that this association can be explained by differences in emotion.

Moral Foundations Theory (MFT; Haidt & Graham, 2007) argues that moral judgments are based on automatic intuitions about right and wrong that are rooted in several *moral foundations*: Harm/Care, Fairness/Cheating, Ingroup/Betrayal, Authority/Disrespect, and Purity/Degradation. Briefly,

intuitions based on the Harm foundation are activated by signs of pain and suffering and might lead us to condemn acts and individuals that cause suffering and to admire those who alleviate or prevent harm (e.g., doctors, firefighters). The Fairness foundation is activated by perceiving violations of reciprocity, equality, individual rights, and justice. The Ingroup foundation arises from our sense of attachment and obligation to groups that we identify with (e.g., family, sports team, church, or country)—we approve of those who sacrifice for the group (e.g., soldiers) or those who contribute to its cohesion and well-being. The Authority foundation stems from our long history of living within social hierarchies; it underlies intuitions that favor those who show leadership, wisdom, respect, or deference and to disapprove of those who fail to fulfill their duties. Finally, Purity foundation engenders concerns about sanctity and desecration and physical and spiritual corruption, such as the inability to control one’s base impulses. It also underlies our tendency to imbue entities (God, nature) with sacred meaning.

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MFT has been used to demonstrate and explain individual variation in moral concerns and its effects (particularly for political ideology, Haidt & Graham, 2007; Koleva, Graham, Ditto, Iyer, & Haidt, 2012), but the developmental and relational antecedents for this variation remain largely unexplored. According to attachment theory (Bowlby, 1969/1982), the attachment system evolved to provide protection and a sense of security during infancy. Depending on the responsiveness, availability, and sensitivity of parental attachment figures, children develop internal working models of relationships that persist throughout adulthood and impact romantic relationships and other relational and personality processes (Mikulincer & Shaver, 2007a). Two dimensions underlie these working models: attachment-related avoidance and attachment-related anxiety (Brennan, Clark, & Shaver, 1998). According to Mikulincer and Shaver (2007a), individuals who score low on both dimensions of insecurity are comfortable being intimate with, depending on, and being depended upon by others in close relationships. In contrast, those high in avoidance are uncomfortable with emotional closeness and have difficulty trusting and depending on others. Finally, individuals high in anxiety display ambivalence about being close to others and are preoccupied with fear of abandonment and/or betrayal.

The benefit of considering attachment representations as predictors of moral judgment is that this could shed light on the relational roots of moral cognition. Through early experiences with primary caregivers, children develop mental working models for social interaction and build expectations for how others will behave in the context of interpersonal relationships, including how individuals might respond to the suffering of others (Mikulincer et al., 2001). These “script-like” mental representations (Mikulincer, Shaver, Sapir-Lavid, & Avihou-Kanza, 2009; Waters & Waters, 2006) influence not just one’s cognitive expectations for social interactions but also emotion processing and appraisal (Cassidy, 1994; Fraley, Niedenthal, Marks, Brumbaugh, & Vicary, 2006; Shaver, Mikulincer, Lavy, & Cassidy, 2009), all of which are relevant to moral judgment.

Recently, Shaver and Mikulincer (2012) discussed attachment working models in the context of altruistic or prosocial tendencies. For example, attachment security (feeling confidence in close others for support) is associated with self-transcendent values (Mikulincer et al., 2003), volunteerism (Gillath et al., 2005), helping (Mikulincer, Shaver, Gillath, & Nitzberg, 2005), and honesty/authenticity (Gillath, Sesko, Shaver, & Chun, 2010). In addition, using a broad, cultural perspective, Rai and Fiske (2011) have argued that conceptions of morality are a function of the relational context. Given these theoretical links, we expected that attachment anxiety and avoidance would be associated with moral concerns and judgments.

Specifically, because individuals high on avoidance tend to have a “cynical, pessimistic view of human nature” (Shaver & Mikulincer, 2012, p. 11), to distrust others (Edelstein & Shaver, 2004) and to display lower empathy (Izhaki-Costi & Schul, 2011), we hypothesized that high avoidance would be associated with weaker moral concerns about harm. In addition,

because previous work has shown avoidance to be associated with inauthenticity, lying, and cheating (Gillath et al., 2010), we hypothesized that high avoidance would be associated with weaker moral concerns about fairness.

With respect to anxiety, we had competing intuitions. On one hand, attachment insecurity has been linked to lower levels of empathy (e.g., Mikulincer et al., 2001); thus, we might expect weaker concerns about harm. Yet, there is evidence that anxious individuals tend to engage in “compulsive caregiving” (Feeney & Collins, 2001) and to display greater empathy (Lopez, 2001) and empathic accuracy (Simpson, Ickes, & Grich, 1999; Simpson et al., 2011), possibly due to their generally higher emotional reactivity (Mikulincer & Shaver, 2007a). This suggests that anxiety might predict stronger concerns about harm. In addition, because anxious individuals are especially vigilant about reciprocity (Bartz & Lydon, 2008), we anticipated high anxiety to be associated with greater concerns about fairness.

Studies have also linked anxious attachment with perceiving and experiencing disgust (Consedine & Magai, 2003). For example, in a study on attachment style and emotion, which included a videotaped emotion induction task, Magai, Hunziker, Mesias, and Culver (2000) found that anxiously-attached individuals showed “an expressive bias centered on disgust” (p. 308), as indicated by a greater tendency to express facial disgust while recalling emotional events. Other investigations by Magai and colleagues have also shown a positive association between trait measures of disgust and anxious as well as fearful avoidant attachment that blends elements of anxiety and avoidance (Consedine & Magai, 2003; Magai, Distel, & Liker, 1995). Finally, one facet of disgust is interpersonal—it involves protecting oneself from undesirable others, including behavioral regulation in the realm of sexuality (Rozin, Haidt, & McCauley, 2008). Both insecurity dimensions are associated with negative experiences involving sex and wariness about emotional and physical intimacy with partners, possibly involving disgust-related emotions (Birnbbaum, Reis, Mikulincer, Gillath, & Orpaz, 2006). Some evidence suggests that insecure individuals view unprotected sex as “unclean,” partially because they perceive their partners to be untrustworthy and likely to expose them to sexually transmitted infections (Sakaluk & Gillath, 2012). Given that trait disgust sensitivity predicts harsher moral evaluations related to physical and spiritual purity (Horberg, Oveis, Keltner, & Cohen, 2009), we predicted that higher anxiety would predict stronger moral concerns about purity.

The attachment literature offers less clear theoretical grounding for predictions about Ingroup and Authority. First, the majority of attachment research focuses on processes involving close others, whereas the Ingroup foundation, as conceptualized and measured, reflects the importance ascribed to group loyalty in general, and not an individual’s attitudes toward his or her particular family/social group. The limited findings on attachment and group processes point to conflicting predictions. On one hand, attachment-related insecurity is associated with more negative cognitions and emotions when

Table 1. Study I Scale Statistics and Zero-Order Correlations.

	Avoidance	Anxiety	Harm	Fairness	In-group	Authority	Purity
Avoidance	1	.09**	-.12**	-.08**	.01	-.02	-.03*
Anxiety		1	.08**	.07**	.05**	.03	.05**
Harm			1	.53**	-.02	-.09**	.06**
Fairness				1	-.10**	-.18**	-.11**
Ingroup					1	.64**	.52**
Authority						1	.61**
Purity							1
Mean	2.68	3.29	3.5	3.58	2.25	2.25	1.55
St. dev.	1.12	1.12	0.82	0.71	0.84	0.87	1.04
α	.94	.91	.69	.65	.69	.73	.82

Note. St. dev. = standard deviation.

* $p < .01$. ** $p < .001$.

participating in groups (e.g., avoidant individuals feel less comfortable working with others, Rom & Mikulincer, 2003) and show less effective leadership, Davidovitz, Mikulincer, Shaver, Izsak, & Poper, 2007). This might suggest that either type of insecurity would be associated with weak moral concerns about Ingroup. On the other hand, attachment insecurity is also related to out-group prejudice and bias, and experimentally-boosted attachment security attenuates these effects (Mikulincer & Shaver, 2001, 2007b). Thus, one might predict that both insecure dimensions would be associated with higher Ingroup concerns. Yet, this is premature because patriotism and loyalty for one's in-group is orthogonal to outgroup hostility and bias (Brewer, 1999). Finally, it is unclear what this work implies for moral judgments about Authority. Given this ambiguity, we examined the associations between attachment and authority and Ingroup concerns but did not make specific predictions.

In sum, we hypothesized that relative to low attachment insecurity, high attachment avoidance would predict weaker moral concerns about harm and fairness, whereas high attachment anxiety would predict stronger concerns about fairness and purity, and possibly about harm.

Study I

Method

Participants and Measures

The study was conducted on a web research platform where volunteers register, provide demographics, and then complete a variety of questionnaires. The sample consisted of 7533 participants (53% male, mean age 37) who completed the Experience in Close Relationships scale (ECR; Brennan, Clark, & Shaver, 1998) and the Moral Foundations Questionnaire (MFQ, Graham et al., 2011). The ECR is a 36-item measure of adult attachment that yields subscores for attachment-related avoidance (e.g., I don't feel comfortable opening up to romantic partners) and anxiety (e.g., I worry about being abandoned). Participants are asked to rate each statement on

Table 2. Predicting Foundation Scores From ECR Avoidance and Anxiety.

	Harm	Fairness	Ingroup	Authority	Purity
Model 1					
Avoidance	-.10**	-.08**	.01	.00	.00
Anxiety	.10**	.09**	.05**	.04**	.06**
Model 2					
Avoidance	-.06**	-.03*	.02	-.02	.00
Anxiety	.06**	.04**	.02	.01	.02*
Mean	3.50	3.58	2.25	2.25	1.55
SD	0.82	0.71	0.84	0.87	1.04

Note. ECR = Experience in Close Relationships scale. SD = standard deviation. In Model 1, the five moral foundation scores were regressed on ECR avoidance, ECR anxiety, and demographics. Model 2 also controlled for the other four foundations.

* $p < .01$. ** $p < .001$.

a 7-point agree/disagree scale. Scores on anxiety and avoidance were weakly correlated ($r = .09, p < .001$) and were examined simultaneously in all analyses. Table 1 shows scale statistics and correlations.

The MFQ is a 30-item, 2-part measure of moral concerns related to each foundation. In Part 1, the participants rate the relevance of 15 concerns when making moral judgments, for example "Whether or not someone was denied his or her rights" for Fairness. In Part 2, the participants rate their agreement with statements that embody or negate each foundation, for example "It is more important to be a team player than to express oneself" for Ingroup. Six items per foundation are averaged to produce an endorsement score. The MFQ shows robust factor structure, validity, and reliability (see www.moralfoundations.org for MFQ items and Graham et al., 2011 for an extensive discussion of the scale's validity and psychometrics).

Results and Discussion

Because of our large samples, we adopted a significance criterion of $p < .01$. We used hierarchical regression where at Step 1 we predicted each foundation score from participants'

Table 3. Study 2 Scale Statistics and Zero-Order Correlations.

	Avoidance	Anxiety	Harm	Fairness	Purity	Empathic Concern	Disgust Sensitivity	Utilitarian
Avoidance	1	.09***	-.09***	-.06***	-.01	-.25***	.06***	.12**
Anxiety		1	.11***	.08***	.06***	.12***	.24***	.09*
Harm			1	.53**	.03**	.58**	.16***	-.24***
Fairness				1	-.14**	.41**	.03*	-.11**
Purity					1	.08**	.35**	-.20***
Empathic concern						1	.11**	-.26***
Disgust sensitivity							1	-.11**
Utilitarian								1
Mean	2.60	3.25	3.53	3.62	1.48	3.75	1.60	-3.08
St. dev.	1.15	1.13	0.83	0.72	1.04	0.80	0.60	2.89
Sample	7125	7125	7125	7125	7125	1952	6721	659

Note. Utilitarian = moral judgments for personal moral dilemmas; St. dev. = standard deviation. * $p < .05$. ** $p < .01$. *** $p < .001$.

avoidance, anxiety, age, gender, education, and religious attendance (findings remain unchanged when also controlling for ideology). At Step 2, we also controlled for the other four foundations. As shown in Table 2, avoidance predicted weaker judgments about Harm ($\beta = -.10, p < .001$) and Fairness ($\beta = -.08, p < .001$), whereas anxiety predicted stronger judgments about Harm ($\beta = .10, p < .001$), Fairness ($\beta = .09, p < .001$), and Purity ($\beta = .06, p < .001$). These findings indicate that attachment avoidance and anxiety are divergently associated with different kinds of moral concerns and judgments.

Study 2

The goal of Study 2 was to replicate these effects and to examine potential mediators. According to Haidt (2001), moral judgments are built on an intuitive affective system; thus, one mechanism by which attachment working models might influence moral concerns is via habitual emotional responses. Given that both attachment and judgments about harm and purity have been linked to empathy and disgust (Rozin, Lowery, Imada, & Haidt, 1999; Toi & Batson, 1982), we focused on these moral emotions as potential mediators. Specifically, we predicted that empathy would mediate the association between attachment insecurity and moral concerns about Harm and Fairness and that disgust sensitivity would mediate the association between anxiety and Purity concerns.

Method

Participants and Measures

The study was conducted on a web research platform with an independent sample of 7125 participants (50% male, mean age 40) who completed the attachment and morality measures used in Study 1, as well as measures of disgust sensitivity and/or empathic concern (EC). The Disgust Sensitivity scale (DS-R; Haidt, McCauley, & Rozin, 1994, modified by Olatunji, Haidt, McKay, & David, 2008) is a 2-part, 25-item measure of the tendency to feel disgust in response to contamination, disgusting entities, and reminders of humans' animalistic nature. In Part

1, the participants rate their agreement with statements such as "It would bother me to be in a science class, and to see a human hand preserved in a jar" on a 5-point Likert-type scale. In Part 2, the participants indicate how disgusted they would be in various situations, for example "A friend offers you a piece of chocolate shaped like dog poo." The empathic concern (EC) subscale of the Interpersonal Reactivity Index (IRI; Davis, 1983) is a 7-item measure of the tendency to feel sympathy and concern for others in need. Participants rate on a 5-point scale how much various statements describe who they are, for example "I often have tender, concerned feelings for people less fortunate than me." The sample with DS-R scores ($n = 6,721$) was larger than that for IRI-EC ($n = 1,952$), because web visitors can select which surveys to take. Table 3 shows scale statistics and correlations.

Results and Discussion

Attachment Predicts Moral Judgments

As in Study 1, we first regressed each foundation score on participants' demographics and then added the other four foundations. Replicating the patterns observed in Study 1, attachment avoidance was negatively associated with Harm and Fairness, and attachment anxiety was positively associated with Harm, Fairness, and Purity. However, as Table 4 shows, although significant at Step 1, the negative association between avoidance and Fairness observed in Study 1 was reduced to a trend once the other foundations were controlled.¹

Emotional Tendency Mediates the Association Between Attachment and Moral Judgments

To examine the potential mediating effect of emotion, we used the PROCESS (Beta Version 120212) software (Hayes, 2012). The models included demographics and the nonpredictor insecure score as covariates (e.g., when examining the direct effect of avoidance on Harm, we controlled for participants' demographics and anxiety).

As shown in Figure 1, EC mediated Harm's negative association with avoidance (Sobel $z = -10.26, p < .001, 95\%$

Table 4. Predicting Foundation Scores From ECR Avoidance and Anxiety.

	Harm	Fairness	In-group	Authority	Purity
Model 1					
Avoidance	-.09**	-.06**	.03	.01	.02
Anxiety	.13**	.10**	.07**	.05**	.09**
Model 2					
Avoidance	-.06**	-.02+	.02	-.02	.01
Anxiety	.07**	.04**	.02*	.00	.05**
Mean	3.53	3.62	2.21	2.21	1.48
SD	0.83	0.72	0.84	0.88	1.04

Note. In Model 1, the five moral foundation scores were regressed on participants' avoidance, anxiety, and demographics. Model 2 also controlled for the other four foundations.
 †p < .10. *p < .01. **p < .001.

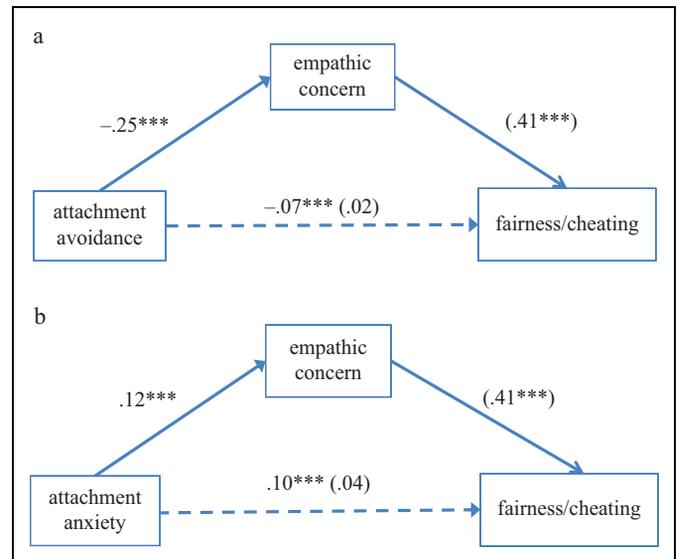


Figure 2. Attachment and fairness/cheating concerns.

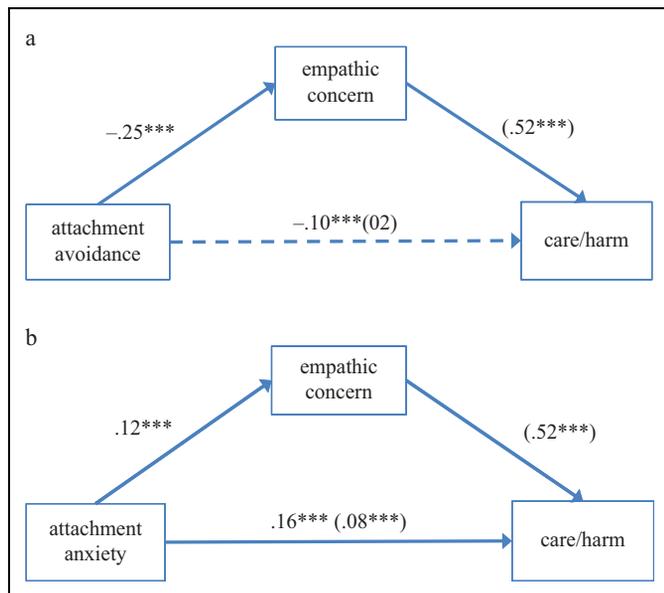


Figure 1. Attachment and care/harm concerns.

confidence interval [CI]: [-.12, -.07]) and Harm's positive relationship with anxiety (Sobel $z = 5.39, p < .001, 95\% \text{ CI}: [.13, .07]$). As shown in Figure 2, EC also mediated Fairness' negative association with avoidance (Sobel $z = -9.52, p < .001, 95\% \text{ CI}: [-.08, -.05]$) and its positive association with anxiety (Sobel $z = 5.26, p < .001, 95\% \text{ CI}: [-.02, -.05]$)². Finally, Figure 3 shows that disgust sensitivity mediated the positive relationship between anxiety and Purity (Sobel $z = 16.69, p < .001, 95\% \text{ CI}: [.06, .08]$).

Avoidance Predicts Utilitarian Moral Judgments

A portion of Study 2 participants with scores on EC (N = 659) also completed a modified version of the moral judgment task used by Greene, Sommerville, Nystrom, Darley, and Cohen (2001). In this task, participants made judgments about hypothetical moral dilemmas that involve inflicting either

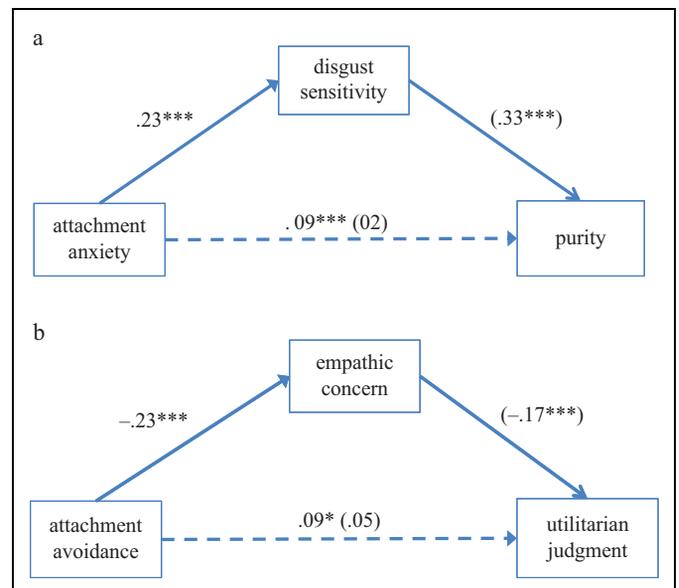


Figure 3. Attachment, purity concerns, and utilitarian judgment.

direct (personal) or indirect (impersonal) physical harm to another person in order to save several people (e.g., Is it morally acceptable to throw a sick person off a lifeboat to prevent it from sinking and killing everyone?). For each moral dilemma, participants indicated (a) whether the utilitarian action (harming one to save many) is morally acceptable (*yes* = 1, *no* = -1) and (b) how certain they are about their answer on a 7-point Likert-type scale from *extremely uncertain* to *extremely certain*. Following previous research (Glenn, Koleva, Iyer, Graham, & Ditto, 2010), we multiplied these two ratings and then averaged across dilemmas to produce a continuous score in which higher numbers indicated more utilitarian judgments.³

Because “no” answers are thought to arise from intuitive, emotion-based aversion to the harmful action (particularly for up close and personal harms, like pushing someone off a lifeboat, Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Koenigs et al., 2007), these dilemmas were used as an alternative measure of moral judgments about harm. Indeed, a linear regression that controlled for participants’ demographics indicated a positive association between avoidance and moral acceptance of calculated harm when evaluating personal ($\beta = .09, p < .05$), but not impersonal, moral dilemmas ($\beta = -.02$, not statistically significant [*ns*]). As with MFQ Harm scores, EC fully mediated this association as shown in Figure 3 (Sobel $z = 3.50, p < .001$, 95% CI: [.05, .18]). Thus, the tendency for avoidant individuals to show weaker moral concern about harm was also present when we assessed moral judgment with a completely different measure.

Study 3

The goal of Study 3 was to examine in more detail the association between avoidant attachment and moral concerns about fairness. Although both studies showed that high avoidance is associated with low fairness concerns, in Study 2 this relationship was reduced to a trend when the other foundations were controlled. On one hand, this might simply be due to the high correlation between Harm and Fairness scores, which likely reflects a meaningful conceptual, as well as measurement, overlap between the constructs (e.g., a moral aversion to violations of individuals’ rights may well be partially driven by concerns about the harm caused by such violations). Thus, adding the Harm score weakens the avoidance–fairness model such that a small but real relationship is difficult to detect even in this large sample.

However, another possibility is that the Fairness subscale encompasses distinct aspects of this moral foundation that might be differentially related to attachment. For example, Deutsch (1975) has posited several distinct justice principles with separate motivations (equity, equality, and need). Based on this work, Haidt (2012) recently discussed three aspects of the Fairness foundation, equality, equity/proportionality, and retributive justice. In an exploratory study with a new sample, we probed the relationships between these components of fairness and attachment. In addition to clarifying our conflicting findings, this study adds to the morality literature by illustrating the multifaceted nature of fairness.

Method

Participants and Measures

Participants were 101 adult volunteers at Amazon Mechanical Turk (39% male, mean age 32) who received US\$0.50. The three aspects of fairness were measured using 13 items previously piloted at www.yourmorals.org. The questions followed the format of the MFQ—some items asked participants about the relevance of different concerns to moral judgment (e.g., “Whether everyone is pulling their own weight” for equity),

whereas others consisted of a fairness-related statement that participants had to agree/disagree with (e.g., “Ideally, everyone in society would end up with roughly the same amount of money” for equality and “A criminal should be made to suffer in the same way that his victim suffered” for retribution). These fairness subscales showed adequate internal consistencies: equality $\alpha = .72$, equity $\alpha = .66$, and retribution $\alpha = .68$. For a comparison, we also included the original MFT Fairness items. Adult attachment was measured using either the full or the short versions of the Experience in Close Relationships–Revised scale (Fraley, Waller, & Brennan, 2000)⁴.

Results and Discussion

Participants’ age, gender, anxiety, and avoidance scores were entered as predictors in a multiple regression. To isolate the unique effects of each fairness component, all analyses controlled for the other two components (the results are almost identical when these controls are omitted). Moral concerns about equality were not associated with either insecure dimension (anxiety $\beta = .06, ns$; avoidance $\beta = .05, ns$). In contrast, equity scores were positively associated with anxiety ($\beta = .24, p < .05$) but negatively associated with avoidance ($\beta = -.25, p < .05$). Finally, retribution was not significantly associated with anxiety ($\beta = -.08, ns$), but it was positively associated with avoidance ($\beta = .24, p < .05$). Interestingly, replicating the pattern from Study 1 and for equity in the current study, the original MFQ fairness score was positively related to anxiety ($\beta = .25, p < .05$) but negatively to avoidance ($\beta = -.23, p < .05$).

These results suggest that the inconsistency in the avoidance–fairness association is due to the multiple ways that fairness might “play out” in the moral space; avoidance was negatively associated with one aspect of fairness (equity), positively associated with another (retribution), and unrelated to a third (equality). This might lead to effects that cancel each other out or vary depending on how the original fairness items are interpreted in different samples or in the context of different items. Given their exploratory nature, we should interpret these findings with caution. However, we think that this study begins to explain the inconsistencies in our existing findings and underscores the value of viewing fairness as a multifaceted construct in morality research.

General Discussion

To our knowledge, these are the first studies to demonstrate that attachment style contributes to variation in moral concerns and judgment and that this link can be explained by differences in moral emotions. Specifically, although high attachment avoidance predicted weaker moral concern for harm and unfairness, high attachment anxiety predicted greater moral concern for harm, unfairness, and impurity, and these associations were mediated by empathy and disgust sensitivity. In addition, the associations for fairness appeared to be specifically driven by the equity/proportionality aspect of fairness.

Recent research suggests that morality is diverse and multifaceted; individuals in the same culture disagree not just on what is right or wrong but even on what constitutes the moral domain (Graham et al., 2009). Furthermore, moral concerns are influenced not only by one's personality, socialization, and culture but also by basic processes such as emotion or motivation and even by unrelated contextual factors (e.g., disgusting stimuli; Schnall et al., 2008).

The current studies extend this framework, suggesting that one potential origin of moral diversity (and disagreement) is people's experiences in close relationships. A focus on such developmental and relational factors is largely missing from morality research (Bloom, 2011; Rai & Fiske, 2011). Although we did not measure change over time, research has shown that attachment schemas formed in infancy extend throughout adulthood to influence adult behavior (e.g., Zayas, Mischel, Shoda, & Aber, 2011), including moral behavior (Shaver & Mikulincer, 2012) and, as we show here, moral concern and judgments as well.

The current studies also refine our understanding of insecure attachment and suggest that avoidance and anxiety have distinct moral profiles. The moral profile of anxious individuals—greater sensitivity to harm and fairness compared to those low on anxiety—might hold clues to why they tend to have poorer relationships (Mikulincer & Shaver 2007a). For example, anxious individuals' greater sensitivity to fairness, and particularly concerns about equity/proportionality, might lead them to apply a tit-for-tat model of moral expectations and judgments in contexts that close others view in terms of communal sharing and not in terms of “an equitable exchange” (Rai & Fiske, 2011). In addition, their sensitivity to harm may lead them to judge benign interactions, such as teasing, as intentionally hurtful. In other words, it is possible that anxious individuals are overzealous in their moral judgments and less willing to give people “the benefit of the doubt” in morally ambiguous situations.

The moral profile for attachment avoidance entails potentially negative implications for both morality and relationships. For example, this judgment pattern (low sensitivity to harm, fairness, and personal harm in moral dilemmas) has been linked to higher psychopathic traits (Glenn, Iyer, Graham, Koleva, & Haidt, 2009) and impairment in brain regions associated with emotion processing (Koenigs et al., 2007), whereas low empathy has been linked with less prosocial behavior (Eisenberg & Miller, 1987). Such individuals might fail to appreciate the hurtfulness of their detached and cynical demeanor, and so they do not view it as morally reprehensible either.

The current studies are a promising first step, but future work should examine these processes using longitudinal designs that can track the interplay between attachment and morality as the two develop. Although the effect sizes presented here are not large, this is unsurprising, given that attachment style tends to be most strongly associated with outcomes directly relevant for close relationships. Although studies have found significant attachment effects on social cognition in general (e.g., information processing; Mikulincer,

1997), those effects are often smaller than ones for more proximal relational outcomes. In addition, morality is shaped by a number of situational and dispositional variables, and the distal influence of attachment models rooted in early experiences was expected to be subtle. Thus, it might be interesting to explore morality's links with alternative attachment conceptualizations (e.g., relationship-specific attachment, Fraley, Hefernan, Vicary, & Brumbaugh, 2011) as well as other relational constructs. Finally, a deeper understanding of the interplay between attachment and morality could be used to inspire novel approaches to old challenges. Is it possible to reduce moral conflict by highlighting shared attachment goals or to enhance insecure individuals' relationships by retuning their moral sensitivity?

In short, if “moral thinking is for social doing” (Haidt & Kesebir, 2010, p. 808), then we cannot completely understand moral judgment without appreciating an individual's unique relationship representations and goals. We hope these findings will stimulate future work that integrates relational attachment, moral judgment, and emotion.

Authors' Note

The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the John Templeton Foundation.

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Notes

1. Unexpectedly, anxiety also predicted higher Ingroup scores. However, this association was weak ($\beta = .02$); and as this pattern was not predicted nor significant in Study 1, we chose to focus on the more robust associations with harm, fairness, and purity.
2. Some readers might wonder why we carried out mediation analyses for avoidance and fairness, given that this association did not reach significance. According to Preacher and Hayes (2008), mediation can be present in the absence of a significant direct effect.
3. These findings are identical when, instead of using a composite of the *yes/no* and certainty ratings as the DV, we used a sum score of only the *yes/no* responses.
4. The initial 50 participants completed the full scale; to reduce the total length of the questionnaire, the other 51 participants were given the 12-item ECR (Wei Russel, Mallinckrodt, & Vogel, 2007).

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