



Emotion and moral judgment

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Research in psychology and cognitive science has consistently demonstrated the importance of emotion in a wide range of everyday judgments, including moral judgment. Most current accounts of moral judgment hold that emotion plays an important role, but the nature and extent of this role are still debated. We outline three increasingly strong claims about the role of emotion in moral judgment and assess the evidence for each. According to the first and least controversial claim, emotions follow from moral judgments, such that witnessing immorality can lead to negative emotions and witnessing moral virtue can lead to positive ones. According to the second claim, emotions amplify moral judgments, for instance, by making immoral acts seem even more immoral. Finally, on the last claim, emotions can actually moralize nonmoral behaviors—that is, they give nonmoral acts a moral status. Although this claim seems to be the most intriguing one theoretically, empirical support for it is still very limited. In this review, we discuss research findings that are in line with each of these views, we highlight recurring themes across these three categories of evidence, and we identify some open questions and areas for future research. © 2013 John Wiley & Sons, Ltd.

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INTRODUCTION

Morality pervades human society. Some of the earliest preserved writings of Greek philosophers are on the quintessentially moral topic of justice.¹ Our oldest and most cherished texts, religious and otherwise, concern themselves largely with moral questions—what to do or avoid doing; what distinguishes the righteous from the wicked. More prosaically, much of our conversation concerns the moral failings of others,^{2,3} and the plots of most summer blockbuster films reflect our appetite for narratives featuring heroes and villains.^{4,5}

The breadth and diversity of morality make it difficult to define what distinguishes a moral judgment from any other kind. Although it is tempting to throw up one's hands and say what Justice Potter Stewart did regarding pornography—it's hard to define, but "I know it when I see it"—we will attempt to do better at defining our terms. When we say 'moral judgment' we mean an evaluation of the actions and character of others. The circumstances under which people choose to act morally or immorally^{6–9} and

whether they apply the same standards to themselves as they do to others^{10,11} are a rich and fascinating area of research, but they are beyond the scope of this review.

Prototypically, moral judgments concern actions where one party harms or helps another, or treats a person or group fairly or unfairly,^{12–14} but moral judgments can also concern behaviors seen as morally relevant by some people and not others.^{15,16} Upholding spiritual and bodily purity (for example, by abstaining from casual sex and recreational drug use) is seen as a moral good by political conservatives, but less so by liberals. The same is true of deference to legitimate authority and defending one's tribe, ethnic group, or nation against outsiders.¹⁷ So how does one distinguish moral judgments (of right and wrong) from judgments about matters of preference, aesthetics, or nonmoral good and bad? A useful rule of thumb is that moral judgments nearly always entail a belief that someone should be rewarded or punished, even if only by social means (e.g., censure, exclusion, gossip, etc. in the negative case; praise in the positive; see also Ref 18). Believing that smoking is immoral, for example, entails thinking that smokers may be publicly reproached, cigarettes should be taxed prohibitively, and public smoking should be restricted

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or banned; a personal preference not to smoke does not¹⁹ (see also Ref 15).

There are a number of excellent recent reviews taking a broad perspective on morality and moral judgment (see, for example, Refs 20–22). Here, we focus on a more specific question: What role does emotion play in moral judgment? Psychologists' interest in emotion has waxed and waned over the years, and in keeping with the cognitive focus of psychology in the 1960s and 1970s, affect was essentially ignored in most early research on the psychology of moral judgment. The most influential accounts of moral judgment from this period focused on reasoning about abstract dilemmas.^{23,24} Starting in the 1980s, psychology—especially the area of social cognition—began to rediscover the importance of affect in a wide range of everyday judgments (for example, see Ref 25). This 'affective revolution' eventually spread to the study of moral judgment and behavior,^{26–28} and most current psychological accounts of moral judgment hold that affect plays an important role. The extent of this role, however, is debated. At one extreme, Haidt²⁹ contended that judgments of immorality are nearly always motivated by 'an automatic intuitive reaction that includes a flash of negative affect' (see also Ref 30, p. 998). At the other, Huebner et al.³¹ argued that 'current evidence is insufficient to support the hypothesis that emotional processes mediate our intuitive moral judgments, or that our moral concepts are emotionally constituted' (p. 5).

In this review, we outline three increasingly strong claims about the role of emotion in moral judgment and assess the evidence for each (for a similar categorization regarding the more specific case of disgust, see Ref 32).

Claim 1: Emotions follow from moral judgments.

This claim is the least controversial; even critics of the 'emotions constitute moral judgments' view³¹ agree that witnessing immorality can lead to negative emotions (anger, contempt, disgust) and that witnessing moral virtue can lead to positive ones (awe, gratitude, elevation). A more interesting aspect of this claim lies in the notion that specific moral concerns, and the respective moral violations, elicit specific emotions in the observer.

Claim 2: Emotions amplify moral judgments. On this view, emotions amplify moral judgments, making wrong things seem even more wrong. This amplification, however, only occurs for behaviors that violate a normative (moral) rule. So, for example, feeling angry might lead to harsher

moral judgments of tax cheats or muggers but not of poor dancers or sloppy dressers.

Claim 3: Emotions moralize the nonmoral. The most extreme view is that emotions 'moralize' nonmoral behaviors—that is, they push them into the moral domain. On this view, a briefly experienced flash of disgust can make the difference between finding (for example) smoking or homosexuality morally objectionable or acceptable. Of course, even here moral judgments involve considerable cognitive 'work', but this supposedly follows from the affective reaction, rather than engendering or accompanying it. Interestingly, although this seems to be the most intriguing claim theoretically, empirical support for it is still very limited (see also Ref 32).

In the following sections, we describe the existing evidence for each of these three views.

CLAIM 1

According to the first claim, emotions ensue in reaction to moral judgment, although they do not necessarily cause or motivate it. Evidence consistent with this view comes mainly from work measuring emotional responses to offensive stimuli or (others') moral transgressions. Functional imaging research, for example, has documented that brain areas associated with emotional responses are activated when participants evaluate moral acts (as opposed to ordinary facts)³³ and when they have been treated unfairly in an ultimatum game³⁴ (see also Ref 27). In line with this evidence, Royzman et al.³⁵ put forward the moral dyspepsia hypothesis, suggesting that the mere appraisal of certain socially proscribed acts as immoral triggers a specific physiological response characterized by a state of oral inhibition (nausea, gagging, and diminished appetite). They specifically showed that reading about consensual sibling incest (an act that has been consistently shown to evoke disgust) led to higher levels of self-reported oral inhibition and disgust and increased perceptions of moral wrongness of the incestuous act (as compared with a similar scenario describing sex between unrelated individuals who were raised together). On the basis of these findings, Royzman et al.³⁵ argued that oral inhibition (a physical disgust response) is the direct result of contemplating certain morally proscribed acts, especially those involving sex.

Furthermore, Chapman et al.³⁶ showed that experiences as diverse as drinking distasteful

substances, viewing pictures of contaminants, and being treated unfairly in an ultimatum game all evoke a disgust response, as reflected in a similar pattern of facial motor activity (activation of the levator labii region) and self-reported disgust. Moreover, these measures predicted participants' decisions to reject unfair offers in the ultimatum game, suggesting that the experience of disgust was not just epiphenomenal; it was triggered by both physical contamination and immoral acts, and it had downstream consequences for decision-making and behavior (but see Refs 37 and 38).

Interestingly, though, emotional responses to different kinds of moral violations can be more finely differentiated. A recurring theme in research that falls within the emotions-as-consequence category (Claim 1) concerns emotion specificity. In line with appraisal theories of emotion,^{39–41} it has been argued that cognitive appraisals of the current situation trigger corresponding emotional reactions, which in turn activate related action tendencies. For instance, work by Cannon et al.⁴² extended Chapman et al.'s³⁶ findings by showing that exposure to different moral transgressions activated different areas of facial muscle activity that are associated with different emotional responses. Specifically, violations of purity and fairness elicited facial disgust, whereas harm violations evoked facial anger. Moreover, the spontaneous activation of emotion-specific facial muscles predicted the magnitude of subsequent moral judgments.

In line with their CAD (contempt, anger, disgust) triad hypothesis, Rozin et al.²⁸ similarly found that behaviors violating the ethics of community (group norms), autonomy (rights of others), and divinity (purity) elicited contempt, anger, and disgust, respectively. Russell and Giner-Sorolla^{43,44} also demonstrated that moral anger, as compared to moral disgust, is more likely to be justified by elaborated reasons, and it more readily responds to changes in circumstances and to cues of intentionality. That is, learning that a transgression is committed unknowingly (vs intentionally) was found to reduce anger but not disgust (see also Ref 45).

According to Hutcherson and Gross⁴⁶ moral emotions (anger, disgust, and contempt) can be distinguished in terms of both their antecedents (appraisals) and consequences (actions). In their studies, varying the appraisals of situations influenced the use of both descriptive emotional terms and intensity ratings. They showed that anger is triggered by situations posing a threat against the self, promoting approach behavior, whereas disgust and contempt are triggered by appraisals of another person's impurity and incompetence, respectively, promoting avoidance.

Finally, the notion that emotions accompany moral judgment is also consistent with research on 'moral conviction'.^{15,47} These researchers use the term similarly to the way we are using 'moral judgment'—i.e., the subjective belief that something is universally right or wrong (unlike nonmoral attitudes, norms, or personal preferences, for which tastes can vary). This research has shown that one's position on a controversial political issue (e.g., abortion, euthanasia, gun control) predicts the magnitude of experienced emotion, and moral convictions have been shown to both guide cognitive processing and prompt action. For instance, having a strong moral conviction about an issue makes one more likely to judge procedural fairness based on outcome fairness (the 'moral mandate effect'⁴⁸). Mullen and Skitka⁴⁹ showed that when a moral mandate is threatened, one experiences moral outrage, which then influences perceptions of fairness of both outcomes and procedures. Moreover, witnessing a violation of a moral mandate, and the resulting sense of unfairness, may increase one's own morally deviant behavior (e.g., stealing, cheating).⁵⁰

In sum, there is ample evidence that emotions are related to, or co-occur with, moral judgment, and that specific emotions are triggered by specific (thematically related) moral transgressions. However, the precise role of emotions in this process, and the stage at which they emerge, is not entirely clear: It could be that emotions cause moral judgments (in the sense of giving rise to judgments of moral goodness or badness), or that cognitions activated by the situation (e.g., witnessing a transgression) give rise to emotions which then serve to motivate action (see also Refs 31 and 35). Moreover, some of the findings described above^{35,49} are not only in line with the first claim (emotions-as-consequence), but they can also be interpreted as support for the claim that emotions function as a source, or as a predictor of moral judgment, to which we turn next.

CLAIM 2

According to the second, stronger claim, emotions do not just accompany moral judgments, but play an active role in producing and altering them. On this view, emotions serve to prioritize or amplify preexisting (and situationally relevant) moral concerns.

One body of work relevant to this claim concerns people's decisions in dilemmas in which two moral principles are pitted against each other: the consequentialist goal of helping the greatest number of people, and the deontological injunction against harming others. The paradigmatic example of such a dilemma is the 'footbridge problem': Imagine standing

on a footbridge and noticing that a runaway trolley passing beneath the bridge is about to hit and kill five workmen on the track below. The only possible way to stop the trolley from killing the five men is to push a large stranger standing on the bridge into the trolley's path, stopping the trolley but killing him. In the parallel 'trolley problem', the large stranger is replaced by a switch that can be thrown to divert the trolley onto another track, killing the one workman on that track but saving the five currently in the trolley's path. Most people think it permissible to throw the switch (showing that they do not think it universally wrong to kill one to save five), but not to push the large man off the bridge⁵¹. The challenge is to explain why. One explanation is that the footbridge problem involves a conflict between two influences: a reasoned desire to save the most people possible, and an intuitive, emotional aversion to directly inflicting harm.^{52,53} Several lines of evidence are said to support this account. First, functional brain imaging shows that when participants are asked to consider the footbridge problem and similar dilemmas, the medial frontal gyrus and posterior cingulate gyrus—brain regions associated with (among other things) emotion—are especially active, and the more active these regions are, the less likely people are to endorse the consequentialist response (e.g., pushing the man off the bridge).²⁷ Second, patients with damage to these regions of the brain—as a result of lesions to the ventromedial prefrontal cortex (vmPFC); or as a result of frontotemporal dementia (FTD), a degenerative neurological disorder affecting the frontal and temporal lobes—are more likely to endorse the consequentialist response for such dilemmas, compared with healthy controls or those with brain damage in other areas.^{54–57} Third, healthy controls, but not those with vmPFC lesions, show markers of physiological stress (i.e., elevated skin conductance) when giving utilitarian responses in these dilemmas.⁵⁷ Fourth, as one would expect if negative affect was partly responsible for people's aversion to endorsing the utilitarian response, participants who have just watched an amusing video clip are more likely to find pushing the stranger off the bridge acceptable.⁵⁸

Taken together, these findings seem to provide clear-cut evidence for the role of emotion in motivating people's reluctance to endorse directly harming another. However, these results are less straightforward than they seem. First, differences between vmPFC-damaged patients and controls are only evident for moral dilemmas where there is a conflict between personal harm and overall welfare. On other moral questions involving harm but not

a harm/welfare trade-off—for example, whether it is appropriate to hire someone to rape one's wife so that one can comfort her afterwards—vmPFC damage does not impair one's ability to give the normative response.⁵⁵ Second, the prefrontal cortex is responsible for a wide range of social-cognitive functions including perspective-taking, theory of mind, action planning, and outcome valuation,^{59–61} and vmPFC damage is associated with a range of social deficits and socially inappropriate behavior.⁶² This raises the possibility that some other cognitive or social deficit—for example, a failure to understand that others might see utilitarian responses as inappropriate, or an inability to integrate different sources of value in evaluating outcomes—might be responsible for vmPFC patients' unusual judgments. Likewise, the physiological stress shown by normal controls giving utilitarian responses might be a result of anxiety regarding evaluations of their choices by others, rather than emotional negativity resulting from imagined harm to another as such. Finally, the effect of positive emotion on utilitarian responses has been shown to be specific to amusement. Elevation, another positive emotion, makes people less utilitarian,⁶³ which is inconsistent with the hypothesis that simply eliminating negative affect will make people more utilitarian. Thus, the findings just outlined provide only indirect support for Claim 2.

More direct evidence for Claim 2 comes from studies where scenarios describing moral transgressions have been systematically manipulated, or relevant emotions have been experimentally induced, and moral judgment has been subsequently measured. Such studies typically find that moral violations are perceived as more or less severe depending on the perceiver's current emotional state, with direct consequences for attributions of blame and punishment.

For example, Goldberg et al.⁶⁴ showed that witnessing a clear act of wrongdoing (e.g., watching a video of a man beating up a helpless teenager) triggers moral anger, which in turn increases punitiveness in subsequent judgments of unrelated transgressions (by a different perpetrator). Importantly, however, these spillover effects of anger were moderated by beliefs about whether justice had been served in the context of the first crime. Specifically, the researchers varied the type of information participants received prior to viewing the first video: Some were told that the perpetrator was caught and punished (justice condition), others were told that he had escaped (injustice condition), and control participants were not given any information. Next, all participants were presented with four vignettes (describing different types

of negligent or reckless behavior that caused harm to an innocent victim) and judged how blameworthy and deserving of punishment the perpetrators in those were.

The results lent support to the predicted ‘moral Zeigarnik effect’: Moral outrage, elicited by witnessing the first crime, carried over and led to recommendations for harsher punishment of the perpetrators of unrelated crimes only when participants believed that the first perpetrator had escaped punishment. In this case, participants’ self-reported anger at the first crime statistically mediated their punitiveness toward the second (unrelated) perpetrator. When participants were told that the first crime’s perpetrator had been punished, experienced anger did not affect subsequent judgments. Thus, the influence of emotion on moral judgment seems to be tempered by related cognitions. Work on moral convictions and the moral mandate effect, discussed earlier,^{15,49} is also consistent with this view, as it shows that when a strong and important moral principle is threatened, moral outrage guides both perceptions (e.g., of fairness) and behavior (e.g., cheating).

Turning to the emotion of disgust, Schnall et al.⁶⁵ showed that subtly induced extraneous feelings of disgust increase the severity of moral judgments. Exposure to a bad smell, watching a disgusting film, and working in a dirty room all led participants to subsequently rate moral violations as more wrong, as compared to a control condition. This was especially the case for individuals who are more sensitive to their own bodily reactions and gut feelings. Similarly, a study investigating the effects of taste perceptions on moral judgments showed that consuming a bitter, as opposed to a sweet, beverage led to harsher judgments of moral transgressions.⁶⁶ In this case, the researchers also measured political attitudes and found that these effects only emerged for political conservatives, but not for liberals, consistent with other work showing that conservatives are generally more sensitive to disgust.^{67–69} However, Inbar et al.⁷⁰ found that exposure to a disgusting odor led to more negative judgments of homosexuals (especially gay men) by both liberals and conservatives. Thus, there is evidence that physical disgust elicits moral disgust, thereby amplifying moral judgment, but at least in some cases this is moderated by sensitivity to bodily reactions and political ideology.

Interestingly, analogous to the studies discussed earlier showing that different moral violations elicit divergent emotional responses, evidence consistent with Claim 2 also demonstrates that different emotions exert divergent effects on moral judgment. For instance, trait disgust sensitivity, but

not trait anger, is associated with greater moral condemnation and proposals for harsher punishment for ambiguously criminal acts.⁷¹ In line with this, Schnall et al.⁶⁵ (Study 4) showed participants emotion-inducing film clips and found that feelings of disgust increased moral condemnation relative to sadness. Again, these effects were stronger for participants who were more prone to rely on bodily affective feedback.

Further support for the emotion-specificity hypothesis comes from work by Horberg et al., who showed that discrete emotions amplify (‘moralize’) the importance of specific moral concerns that are associated with specific moral domains.^{73,74} In particular, by adopting an appraisal-based approach, they demonstrated that integral feelings of disgust and anger (elicited through exposure to different vignettes) led to harsher moral judgments of purity and justice violations, respectively, but that these manipulations did not affect judgments outside of their corresponding domain (i.e., disgust did not affect judgments about justice, and anger did not affect judgments about purity). In a similar vein, experimentally induced feelings of disgust, but not sadness, had an impact on moral judgments in the purity domain. Disgust not only led to greater condemnation of purity offenses, but it also increased moral praise of purity virtues, thereby suggesting that emotions may influence moral judgment through increasing the perceived importance of the domain related to its core appraisal and of upholding moral value within this domain.

In sum, there is substantial evidence for Claim 2, namely that emotions are not merely associated with the process of moral judgment, but rather actively sway it in one direction or another. Exposure to different moral violations elicits different emotions, but also experiencing different emotions—even when unrelated to the judgment at hand—drives moral judgment in predictable ways, resulting in emotion- and domain-specific effects. Critically, however, the research discussed above has mainly investigated the influence of emotions on judgments of transgressions that fall within the moral domain, thereby providing support for the notion that emotions amplify or prioritize preexisting moral concerns. An intriguing question, therefore, is whether emotions can moralize the nonmoral? Evidence for such a relationship would be in the realm of Claim 3.

CLAIM 3

According to the last and strongest claim, emotions not only amplify our preexisting feelings or beliefs

about right and wrong, but may actually moralize judgments of issues or acts that were previously seen as falling outside the moral domain. Arguably the strongest empirical evidence for this claim comes from experimental research by Wheatley and Haidt.⁷⁵ They hypnotized participants to feel ‘a brief pang of disgust...a sickening feeling in your stomach’ at encountering an arbitrary word and then presented them with vignettes describing different moral offenses that either contained the target (disgust-related) word or not. The authors found that feelings of disgust (elicited by encountering the target word in the vignette) led to more severe moral judgments of the protagonist’s actions (e.g., shoplifting, theft, bribery, incest). Most relevant to the moralization hypothesis, these effects were obtained even for a scenario that did not describe a moral violation (i.e., a student-council representative selected topics for the upcoming meetings that would stimulate discussion). Thus, subtly induced disgust influenced subsequent unrelated judgments and even moralized a non-offensive act. On the basis of these and other findings, Haidt^{29,30} has proposed a ‘social intuitionist’ model of moral judgment. According to this model, judgments of moral right and wrong are usually the result of affect-laden intuitions, whereas moral reasoning functions *post hoc* to recruit justifications for one’s intuitive judgments. Metaphorically, reasoning functions as the ‘press secretary’ for one’s moral intuition—reason explains and justifies, but intuition sets the policy.⁷⁶ Haidt does not claim that moral intuition is always emotionally based, but he seems to think that as a rule it is. For instance, he has described moral intuitions as ‘fast, automatic, and (usually) affect-laden processes’ (Ref 29, p. 998). Thus, his view is most compatible with Claim 3—that emotion can moralize otherwise nonmoral topics.

A parallel body of work originating largely in developmental psychology has examined the moralizing role of emotions in the development of the moral versus conventional distinction: that is, one’s capacity to differentiate between rules and violations in the moral (e.g., hurting others, cheating) versus nonmoral (e.g., table etiquette) domains. Kagan⁷⁷ proposed that moral rules are fundamentally conventional (i.e., nonmoral) rules that have been moralized through their association with strong emotions (i.e., emotional conditioning, see also Ref 78). In line with this, Blair and colleagues^{79,80} have posited that humans possess a violence inhibition mechanism (VIM) which is activated upon exposure to distress cues, and that the resulting negative affect drives responses to moral violations. Some correlational evidence for such a mechanism comes

from research on psychopaths showing that they are less likely to experience empathic negative emotions (i.e., they do not respond strongly to distress cues) and are also unable to properly distinguish moral from conventional violations^{79,81} (but see Ref 82 for recent evidence against such a relationship).

On the basis of these and other findings, Prinz⁷⁸ has gone even further, arguing that emotions can directly cause moral evaluations and that—unlike conventional rules—moral rules are fundamentally grounded in emotions. On his ‘sentimentalist’ view, believing that something is morally wrong is in essence having “a sentiment of disapprobation” towards it (Ref 78, p.33). In other words, condemning an act as immoral entails the experience of a negative emotional reaction, and the judgment itself is just an expression of this emotional reaction. Prinz contends that “the emotion serves as the vehicle of the concept ‘wrong’ in much the same way that an image of some specific hue might serve as the vehicle for the thought that cherries are red” (Ref 78, p.34). Thus, Prinz’s view can be seen as the strongest version of Claim 3: emotions not only partly constitute, but they are also both necessary and sufficient for moral judgment.

Similarly, Nichols¹⁸ put forward a ‘norms with feelings’ account, which holds that moral judgment is contingent on the interaction of two mechanisms: a system of rules (normative theory) prohibiting certain actions (i.e., harming others), and an independent affective mechanism that is activated by witnessing suffering in others. In support of his ‘affect-backed’ theory, Nichols¹⁸ (Study 1) showed that certain non-harm-based transgressions that elicit disgust (e.g., spitting in one’s glass at a dinner party) are treated as nonconventional (moral) violations. That is, they become moralized: they were rated as less permissible, more serious, and more authority-independent than conventional offenses. In addition, it was demonstrated that the effects on the last two measures were stronger for individuals with high disgust sensitivity (Study 2). Although it is ambiguous regarding the exact mechanism driving the effects of emotion on judgment and it stresses the contribution of the normative system, Nichols’ account seems to imply, in line with that of Prinz⁷⁸, that emotions are necessary for moral judgment, and the intensity of one’s affective reactions to a violation is crucial for whether the violation will be treated as a moral or a conventional one.

Recent evidence presented by Royzman et al.,⁸³ however, challenges Nichols’, Kagan’s, and related accounts. Specifically, Royzman et al. suggested that

the notion of harm has typically been used too narrowly, while it may be seen by laypeople to cover a broader range of behaviors, including any act that reduces the utility of others (makes them worse off; see also Ref 14). In a replication of Nichols' original study¹⁸, they showed that acts that researchers considered harmless (e.g., violations of table manners) were in fact judged to negatively affect others (e.g., cause discomfort and repulse others). Furthermore, addressing a number of methodological concerns with regard to Nichols' studies (i.e., demand characteristics; close proximity of the disgust sensitivity measure and the moral judgment measures) and using a sibling incest scenario, Royzman et al.⁷⁷ found that perceptions of harm, but not disgust sensitivity, reliably predicted the tendency to moralize actions. Finally, they suggest that a potential problem with the 'norms with feelings' account is that of affect scarcity: some moral violations (e.g., tax evasion), although they are perceived as immoral, do not typically elicit strong negative feelings, implying that the role of emotions may sometimes be less central.

In sum, researchers have argued that emotions may actually moralize judgment, thereby 'pulling' an otherwise nonmoral act into the moral domain. In other words, according to this claim emotions do not only strengthen our preexisting feelings or beliefs that a certain behavior is right or wrong, thereby polarizing judgment, but they may also determine whether we perceive the behavior in terms of right and wrong in the first place.

And yet, the conceptualization of emotions as causal—or even necessary—for moral judgment has been tested directly in only a few (published) experimental investigations and has so far received only limited empirical support. Given the intriguing possibility that affect has such a powerful role, and may thus so fundamentally alter moral judgment, this gap in empirical research seems surprising. This may be due in part to the lack of communication between otherwise closely related fields. Although researchers working within social psychology, developmental psychology, and philosophy are apparently all interested in the role of emotions in moral judgment, they tend to use different approaches, terminology, and paradigms, making the exchange of ideas more difficult. Another, arguably more challenging, issue is related to potential problems with the operationalization of the construct: What is the best way to systematically test the idea that emotions moralize the nonmoral across different

populations and content domains? What is a 'truly nonmoral' violation that does not evoke any feelings of disgust or anger with the perpetrator, but that would still be likely to undergo moralization⁸³? Finally, might other factors moderate the moralizing role of emotions?

CONCLUSION

In this review, we set out to delineate three different views on the role of emotions in moral judgment. Specifically, we classified existing evidence into one of three basic categories, depending on whether it is consistent with the claim that emotions simply co-occur or ensue from (Claim 1), amplify (Claim 2), or directly cause (Claim 3) moral judgment. Notably, whereas there is ample support for the first claim, rendering it the least controversial, there is only limited empirical evidence for the third claim, although it is the one that seems to be the most theoretically intriguing (see also Refs 31 and 32). A recurring theme that cuts through research across these categories is the notion of emotion specificity: irrespective of how the exact nature and direction of the relationship are conceptualized, distinct emotions seem to be associated with specific moral concerns and moral violations.

Of course, the boundaries of the categories we propose are permeable and some of the reviewed evidence is open for (re)interpretation. For instance, some of the research that we discussed as supporting Claim 1 could arguably be seen as supporting Claim 2, and some of the work we draw on to describe Claim 2 would probably fit Claim 3 at some level as well. Rather than a rigid framework, we aimed to provide a flexible guide that may evolve and thus easily accommodate new evidence or compelling reinterpretations of old findings.

Our review does clearly show one thing: Despite the rapid accumulation of knowledge regarding the role of emotion in moral judgment, there are still many unanswered questions. How do specific emotions come to be associated with specific moral topics? How precisely do emotions exert their amplifying effect on judgments of (im)morality? If emotions do moralize the nonmoral, what are the limits of this phenomenon? Are there certain topics that are simply not moralized, regardless of one's emotional state? With so many open questions, we expect that the next decade of research in this area will be even more exciting than the last.

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