You See, the Ends Don't Justify the Means: Visual Imagery and Moral Judgment

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Abstract

We conducted three experiments indicating that characteristically deontological judgments—here, disapproving of sacrificing one person for the greater good of others—are preferentially supported by visual imagery. Experiment 1 used two matched working memory tasks—one visual, one verbal—to identify individuals with relatively visual cognitive styles and individuals with relatively verbal cognitive styles. Individuals with more visual cognitive styles made more deontological judgments. Experiment 2 showed that visual interference, relative to verbal interference and no interference, decreases deontological judgment. Experiment 3 indicated that these effects are due to people's tendency to visualize the harmful means (sacrificing one person) more than the beneficial end (saving others). These results suggest a specific role for visual imagery in moral judgment: When people consider sacrificing someone as a means to an end, visual imagery preferentially supports the judgment that the ends do not justify the means. These results suggest an integration of the dual-process theory of moral judgment with construal-level theory.

On March 29, 1981, Patrick Kelly threw his wife off the balcony of their Toronto apartment, causing her to fall 17 stories to her death ("Full Parole," 2010). We suspect that, on reading the previous sentence, you pictured this tragic event in your "mind's eye" and judged this action to be morally wrong (if only implicitly). Such introspection suggests that these two processes may be causally related and, more generally, that visual imagery (Kosslyn, 1980) may play an important role in moral judgment. But what role, if any, does it play? One possibility is that visual imagery simply heightens the salience of all moral considerations, a hypothesis consistent with recent findings concerning the effects of closing one's eyes on moral judgment (Caruso & Gino, 2011). Alternatively, visual imagery may preferentially support some moral judgments over others. The present research tested the latter hypothesis.

Recent research in moral psychology has examined the pervasive tension between the rights of the individual and the greater good, employing moral dilemmas that capture this tension (Ciaramelli, Muccioli, Ladavas, & di Pellegrino, 2007; Cushman, Young, & Hauser, 2006; Greene, Morelli, Lowenberg, Nystrom, & Cohen, 2008; Greene, Nystrom, Engell, Darley, & Cohen, 2004; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Koenigs et al., 2007; Mendez, Anderson, & Shapira, 2005). For example, in the classic footbridge dilemma (Thomson, 1985), one can save five lives by pushing an innocent person into the path of a runaway trolley. Research on such dilemmas supports a dual-process theory of moral judgment according to which *deontological*[1] judgments favoring the rights of the individual (e.g., "It's wrong to push the man") are preferentially supported by automatic emotional responses, whereas *utilitarian*, or consequentialist, judgments favoring the greater good (e.g., "It's better to save the five") are preferentially supported by controlled cognition (Greene et al., 2008; Greene et al., 2004; Paxton, Ungar, & Greene, 2011). In the experiments reported here, we tested two more-specific hypotheses: (a) that visual imagery preferentially supports deontological moral judgment and (b) that verbal processing preferentially supports utilitarian moral judgment.

These hypotheses have two distinct, but related rationales. The first follows from a combination of the dual-process theory of moral judgment and other findings indicating that visual representations, as compared with verbal representations, are more emotionally salient (De Houwer & Hermans, 1994; Holmes & Mathews, 2005; Holmes, Mathews, Mackintosh, & Dalgleish, 2008; Kensinger & Schacter, 2006). If visual

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imagery facilitates emotional responses, and deontological judgments are preferentially supported by emotional responses, then visual imagery may preferentially support deontological judgments. Likewise, if verbal processing facilitates responses that are less emotional, and utilitarian judgments are supported by processes that are less emotional, then verbal processing may preferentially support utilitarian judgments.

The second rationale for our hypotheses follows from construal-level theory (Liberman & Trope, 2008; Trope & Liberman, 2010). According to construal-level theory, the same objects and events may be represented (construed) at multiple levels of abstraction. (See also action-identification theory; Vallacher & Wegner, 1985.) High-level construals are relatively abstract, reflecting overarching goals (e.g., "I'm trying to get a job"), whereas low-level construals are relatively concrete, reflecting the means employed to achieve overarching goals (e.g., "I'm shaking the interviewer's hand"). Utilitarian judgments give priority to ends (e.g., "It's better to save more lives . . ."), whereas deontological judgments often give priority to means (e.g., ". . . but it's wrong to do so by killing an innocent person"). Therefore, utilitarian judgments may be facilitated by high-level construals, and deontological judgments may be facilitated by low-level construals. Amit, Algom, and Trope (2009) have shown that verbal representations facilitate more abstract, high-level construals, whereas visual representations facilitate more concrete, low-level construals. For example, in one experiment, participants organized items associated with a specific event (e.g., a camping trip) into groups of their own choosing. In one condition, the items were presented as words, but in the other, they were presented as pictures. The participants grouped the items into a smaller number of more abstract categories when the items were presented as words, rather than pictures.

Putting the foregoing evidence together suggests the following line of reasoning: Visual imagery is inherently concrete, depicting specific things. For example, the word *chair* refers to an entire class of highly variable pieces of furniture, from bean-bag chairs to electric chairs. However, an image of a chair must depict some more or less specific chair, with a specific number of legs and other specific features. When one visualizes a purposeful action, the means employed to achieve the desired end is necessarily (or, at least, very likely) depicted. For example, if one visualizes someone making a cake, one is very likely to visualize the tools used to bake the cake (the mixer, oven, etc.). Thus, we hypothesized that visual imagery naturally facilitates low-level construals of actions (concrete, means-focused construals) and that by highlighting the concrete means by which ends are achieved, visual imagery facilitates deontological moral judgments, in contexts in which a harmful action is a means to a greater good. However, in comparison with visual processing, verbal processing involves more abstract representations, which in turn facilitate high-level construals that emphasize the ends to be achieved more than the means. Thus, verbal processing may facilitate utilitarian judgments.

These two rationales—grounded respectively in the dual-process theory and construal-level theory—are complementary, are not mutually exclusive, and may reflect common underlying mechanisms, despite their distinct theoretical origins (see the General Discussion section). The first rationale makes specific reference to emotion, whereas the second makes explicit reference to construal level. Our aim was not to distinguish between these two rationales, and therefore the present research did not involve teasing apart the respective roles of emotion and construal level. Rather, our aim was simply to examine the respective influences of visual processing and verbal processing on moral judgment.

We did this in three experiments. Experiment 1 tested the prediction that individuals with more visual cognitive styles will make more deontological moral judgments and, correspondingly, that individuals with more verbal cognitive styles will make more utilitarian moral judgments. To test this prediction, we employed two matched working memory tasks—one visual and one verbal—to assess participants' relative strengths of visual processing and verbal processing. We then had participants make moral judgments. Experiment 2 built on the correlational results of Experiment 1, using experimental manipulations to examine the distinctive effects of visual interference and verbal interference on moral judgments. Experiment 3 used self-report data and a mediation model to identify the content of the visual imagery that influences moral judgment.

Experiment 1

Experiment 1 tested the hypothesis that individuals with more visual cognitive styles will make more deontological judgments and, correspondingly, that individuals with more verbal cognitive styles will make more utilitarian judgments. To assess cognitive style (indirectly, by measuring verbal vs. visual ability), we adapted two working memory tasks (Kraemer, Rosenberg, & Thompson-Schill, 2009) that require participants to make similarity judgments about sequentially presented sets of visual items and sets of verbal items. We then examined participants' moral judgments using "high-conflict" (Koenigs et al., 2007, p. 909) moral dilemmas that we had taken from a standard battery (Greene et al., 2001).

Method

Participants. Fifty-one participants (36 women, 15 men; age range = 18–50 years; all native English speakers) were recruited for pay through the Harvard University psychology study pool. One participant who had dyslexia was excluded.

Materials and procedure. Participants were seated at a computer running DirectRT (Version 2002; Jarvis, 2006a) software. First, they completed the visual-verbal working memory tasks. On each trial, a target item was followed by two probe items. Half of the items were visual (shapes), and half were

verbal (descriptions of shapes; Fig. 1). Instructions were to identify the probe item that was more similar to the target. Participants indicated whether the right or left probe item was more similar to the target item by using the right- or left-arrow key, respectively. The location of the similar probe item was counterbalanced across participants and randomized. Targets were displayed for 1,000 ms. Probes followed the targets immediately and remained on-screen until the participant responded. There was no time limit. A fixation cross appeared for 1,000 ms before each trial.

There were 24 different visual target items, which varied by color, shape, and internal pattern. Each visual target item had a corresponding verbal target item. For example, one visual target was a red-striped triangle, and the corresponding verbal target comprised the words "red," "stripe," and "triangle," arranged vertically. There were five possible values for each dimension (e.g., five shapes: triangle, diamond, star, square, and circle). On each trial, one probe item shared two features with the target, and the other probe item shared only one feature. Probes appeared side by side on the monitor, and both probes matched the modality (visual vs. verbal) of the target on that trial. Items were centered against a white background. Visual targets measured 9 × 9 cm. Verbal items were presented in 28-point Western font, and the text color was black.

Next, participants responded to seven high-conflict personal moral dilemmas in which killing a single person would save several others. The specific personal dilemmas used were Crying Baby, Sophie's Choice, Lifeboat, Safari, Plane Crash, Sacrifice, and Footbridge. Also, three impersonal dilemmas (Fumes, Trolley, and Donation) were included to reduce repetition. Participants judged the moral acceptability of the proposed utilitarian action in each dilemma using a 7-point scale ranging from 1 (*completely not appropriate*) to 7 (*completely appropriate*). Each dilemma was presented on a single screen with the scale at the bottom. There was no time limit. Trials were randomly ordered. Text was presented using MediaLab (Version 2002; Jarvis, 2006b) software.

Finally, participants were asked about their number of years of education, and their views on social liberalism/conservatism, their views on economic liberalism/conservatism, and their belief in God.

Results

For each participant, we computed a visualizer-verbalizer (VV) score by subtracting mean verbal accuracy from mean visual accuracy in the working memory tasks. Thus, higher numbers indicate a more visual cognitive style. Then, for each participant, we computed the mean moral-acceptability rating for the seven high-conflict dilemmas. Higher mean ratings indicate more utilitarian judgments, and lower mean ratings indicate more deontological judgments. Because moral-acceptability ratings were skewed, these values were log-transformed. As predicted, there was a significant negative correlation between VV score and mean moral-acceptability rating, $r(49) = -.37$, $p = .007$, such that individuals with more visual cognitive styles made judgments that were, on average, more deontological and less utilitarian, favoring the rights of the individual over the greater good (Fig. 2). This effect held when we controlled for level of education ($r = -.37$, $p = .008$), social liberalism/conservatism ($r = -.36$, $p = .009$), economic liberalism/conservatism ($r = -.36$, $p = .01$), and belief in God ($r = -.33$, $p = .01$).

Experiment 2

In Experiment 2, we used experimental manipulations to examine the distinctive, causal effects of visual processing and verbal processing on moral judgment. Participants made moral judgments while subject to interference from a concurrent
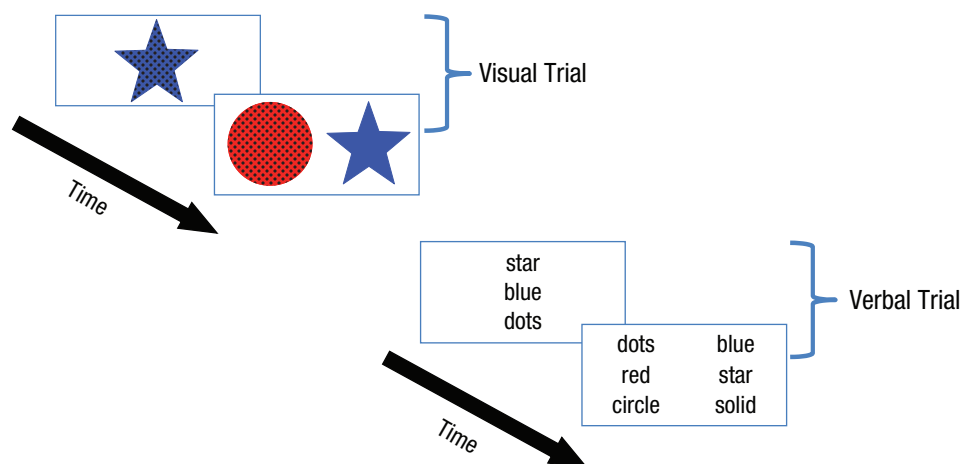

Fig. 1. Sample trial sequences for the visual working memory task and the verbal working memory task in Experiment 1. In both types of trials, participants were presented with a probe followed by two targets. Their task was to identify which of the two probes more closely matched the target. (This figure was adapted from Kraemer, Rosenberg, & Thompson-Schill, 2009.)
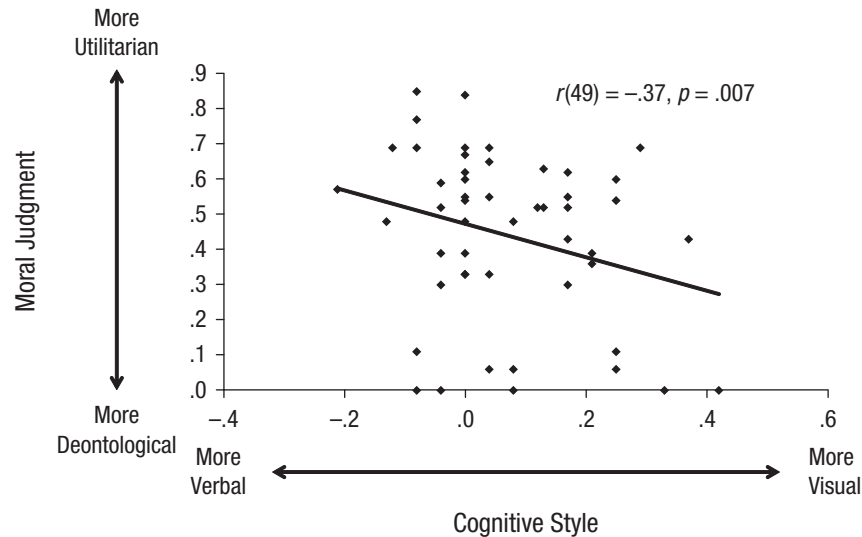
Fig. 2. Scatter plot (with best-fitting regression line) showing mean log-transformed moral-acceptability score as a function of cognitive style. Cognitive-style scores were calculated by subtracting mean verbal accuracy from mean visual accuracy in the working memory tasks.

visual working memory task, interference from a verbal working memory task, or no interference. Our hypothesis predicted that, relative to verbal interference, visual interference will inhibit deontological judgment. Our experimental procedure offered a strong test of our hypothesis because some nonvisual forms of cognitive load—attentional load (Greene et al., 2008) and time pressure (Suter & Hertwig, 2011)—have been shown to *facilitate* deontological judgment.

Method

Participants. Forty-three participants (21 women, 22 men; age range = 18–50 years) were recruited as in Experiment 1. Data from 1 participant were excluded because of a computer failure.

Materials and procedure. Participants responded to the moral dilemmas used in Experiment 1 and two other high-conflict dilemmas drawn from the same battery (Euthanasia and Submarine). During the moral judgment task in the interference conditions, participants also performed concurrent working memory tasks at two points during each trial: between the presentation of the description of the dilemma and the moral question and between the question and the response. Thus, the question was presented twice, for 3 s after the first interference task and then again after the second interference task. The second time, the question was presented above a 7-point scale ranging from 1 (*completely unacceptable*) to 7 (*completely acceptable*).

The concurrent task was a 2-back working memory task (Kirchner, 1958): Each 2-back series lasted 5 s, with each item displayed for 500 ms immediately after the previous item. Thus, the interference lasted for a total of 10 s per dilemma. In each visual interference series, the participant viewed a series

of 10 shapes (a total of 20 shapes per dilemma) and was required to indicate by button press whether each shape was identical to the shape presented 2 items earlier. There were five possible shapes (circle, diamond, square, triangle, and star) displayed in purple on a black background; each shape measured 7.6 × 7.6 cm. In the verbal interference trials, the items were the names of those shapes ("circle"; "diamond"; "square"; "triangle"; and "star") displayed in 56-point Times New Roman font. In the noninterference trials, participants viewed a screen that read "please wait" for 5 s: Once that text had disappeared, the participants would respond to the moral question. Within a given moral judgment trial, the modality of the 2-back task (verbal or visual) did not vary.

Dilemmas were randomly ordered and randomly assigned to interference condition. Participants viewed a fixation cross for 1,000 ms between trials. Stimuli were presented using DirectRT software. After completing the moral judgment task, each participant completed a demographic questionnaire, was thanked, and was debriefed.

Results

We excluded 2 participants whose performance on the interference tasks was at chance level. To ensure that the working memory tasks were concurrent with the moral judgment task, we discarded data from trials (< 3%) in which reaction times for the moral judgment were 2 standard deviations above the whole sample's mean. The two interference tasks were of comparable difficulty—mean accuracy: $t(39) < 1$, $p = .7$. Because moral-acceptability ratings were skewed, these values were log-transformed.

Results were consistent with our hypothesis: Visual interference, in comparison with verbal interference, made judgments less deontological and more utilitarian (Ms = 0.55 and

0.47, respectively), $t(39) = 2.7$, $p < .01$, $\eta_p^2 = .16$ (Fig. 3). To determine whether this effect was due to visual interference, verbal interference, or both, we compared each interference condition with the no-interference condition. Visual interference produced more utilitarian judgment than no interference (Ms = 0.55 and 0.46, respectively), $t(38) = 2.08$, $p = .04$, $\eta_p^2 = .10$. There was no significant difference between the verbal-interference and no-interference conditions (Ms = 0.47 and 0.46, respectively), $t(38) = 0.1$, $p > .05$. Thus, the present results bolster those of Experiment 1, indicating that visual processing, relative to verbal processing, preferentially supports deontological moral judgment. Moreover, these results indicate that this difference is due solely to the distinctive effects of visual imagery on moral judgment.

It is not clear why verbal interference produced no reliable effect. One possibility is that verbal processing plays a minimal role in the particular judgments that we examined. Another possibility is suggested by the dual-process theory, according to which deontological judgments, unlike utilitarian judgments, are preferentially supported by automatic processes. If visual interference affects an automatic process, rather than a controlled process, it may be harder for people to compensate for the interference (see Greene et al., 2008). But because verbal reasoning is a controlled process, people may be more aware of the effects of verbal interference compared with visual interference, and it may be easier for them to compensate for verbal interference.

Experiment 3

Experiments 1 and 2 indicated that visual imagery preferentially supports deontological judgment, but they did not identify the specific content of the imagery that had this effect. A natural hypothesis, consistent with construal-level theory, is that visual imagery preferentially supports deontological judgment because people tend to visualize harm caused as a means to an end more than they visualize harm to be avoided as an end. For example, in the Footbridge dilemma, people may tend to visualize the harm that is done to the pushed person more than the potential harm to the five people that is avoided. In Experiment 3, we tested this hypothesis using self-reports of the contents of visual imagery in response to the Footbridge dilemma and a control dilemma, the Trolley dilemma. In these dilemmas, the consequences are identical, but the nature of the action differs because the harm is causally necessary to achieve the goal (i.e., it is a means) in the Footbridge dilemma, but the harm is incidental (a side effect) in the Trolley dilemma. (These dilemmas also differ regarding the presence of "personal force" and other factors, but their effects on moral judgments depend on whether the harm is a means; Greene et al., 2009.) We predicted, first, that participants would report spontaneously visualizing the harm to the individual more in the Footbridge dilemma than in the Trolley dilemma. Second, we predicted that, following a familiar pattern (Thomson, 1985), people would make more deontological judgments in response to the Footbridge case than in response to the Trolley case. Finally, we expected that this difference in the content of participants' internal imagery would explain (partially or completely) why the Footbridge dilemma elicits more deontological judgment.

Method

Three hundred seventy participants (180 women, 179 men, 11 participants whose gender was unknown; age range = 17–70 years, mean age = 31.9 years, SD = 10.9 years) were recruited
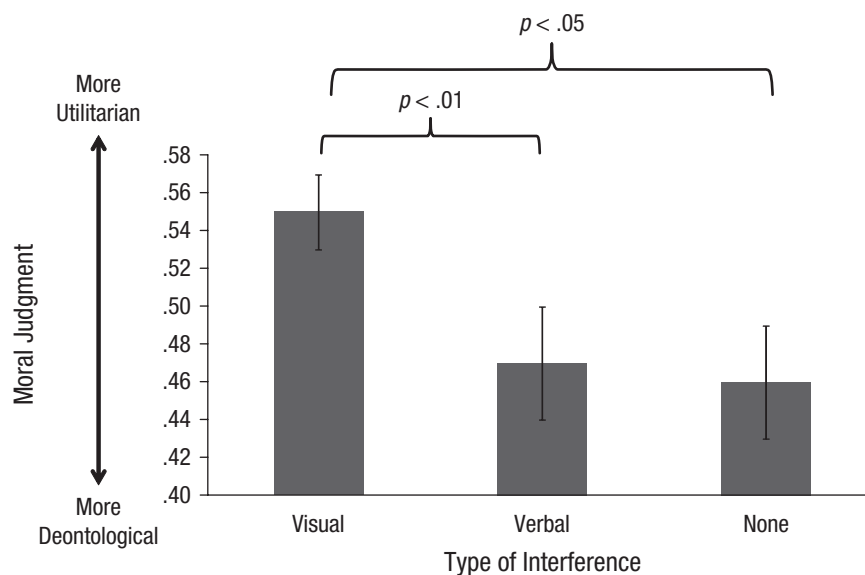

Fig. 3. Mean log-transformed moral-acceptability score as a function of interference condition. Error bars show standard errors of the mean. Asterisks indicate significant differences between conditions (*p < .05, **p < .01).

through Amazon.com's Mechanical Turk and randomly assigned to either the Footbridge dilemma or the Trolley dilemma. After they read the assigned dilemma, participants made their moral judgment as in Experiment 1, either before or after (counterbalanced) responding to two imagery questions. The first question asked whether they had pictured events in the dilemma in their "mind's eye." Nearly all participants (342 of 370) indicated that they had. The others were excluded from analysis. The second question asked participants to describe their imagery using a 7-point scale, with lower numbers indicating that the imagery of the individual to be sacrificed was more vivid than the imagery of the five individuals to be saved.

Results

Because moral-acceptability ratings were skewed, these values were log-transformed. As expected, participants made more deontological judgments for the Footbridge dilemma than for the Trolley dilemma (Ms = 0.33 and 0.49, respectively), $F(1, 331) = 21.1$, $p < .0001$, $\eta_p^2 = .06$. Also as predicted, participants reported more vividly picturing the single individual than the five people for the Footbridge dilemma ($M = 2.8$, which is significantly below the scale's midpoint of 4), $t(171) = -7.06$, $p < .0001$, $d = 0.6$, but not for the Trolley dilemma ($M = 3.8$), $t(160) = -1.05$, $p = .29$. The difference between the Footbridge and Trolley dilemmas was significant, $F(1, 330) = 15.16$, $p < .0001$, $\eta_p^2 = .04$. Moreover, these imagery ratings partially mediated the relationship between dilemma and judgment: More imagery of the single individual predicted more deontological judgment ($r = .18$, $p = .001$), even when controlling for dilemma ($\beta = 0.13$, $p = .015$). Critically, the effect of dilemma was significantly reduced when controlling for imagery (Sobel $z = -2.04$, $p = .004$), although the effect remained ($\beta = -0.21$, $p < .0001$). These results indicate that visual imagery preferentially supports deontological judgment because people tend to visualize the harmful means more than they do the beneficial end.

General Discussion

Three experiments examined the roles of visual processing and verbal processing in moral judgment. Experiment 1 used two matched working memory tasks to identify individuals with relatively visual and relatively verbal cognitive styles. As predicted, individuals with more visual cognitive styles made more deontological moral judgments, disapproving of killing one person to save several others. Experiment 2 demonstrated a causal relationship between visual imagery and deontological moral judgment, showing that visual interference decreases deontological judgment. Experiment 3 indicated that visual imagery preferentially supports deontological judgment because people are more prone to visualizing harm caused as a means to a beneficial end than to visualizing the beneficial end. These results were separately predicted by two previously unconnected psychological theories, the dual-process theory of

moral judgment (Greene et al., 2008; Greene et al., 2004; Greene et al., 2001; Paxton et al., 2011) and construal-level theory (Liberman & Trope, 2008; Trope & Liberman, 2010). The present findings extend these theories and suggest that they may be fruitfully integrated. We note also that the methods employed here for measuring and manipulating visual and verbal processing may be used to study the roles of visual processing and verbal processing in almost any task.

As noted earlier, the dual-process theory posits that characteristically deontological judgments (e.g., "It's wrong to kill the man to save the others") are preferentially supported by automatic emotional responses. Recent research has identified features of actions (e.g., the use of personal force to inflict harm) that elicit deontological moral judgments (Cushman et al., 2006; Greene et al., 2009), but essentially nothing is known about the cognitive processes that translate representations of such features into the operative emotional responses. The present results begin to fill in this critical gap, suggesting that visual imagery plays an important role in triggering the automatic emotional responses that support deontological judgments.

This interpretation is consistent with recent research showing that closing one's eyes induces more extreme assessments of canonically selfish or morally admirable behaviors (Caruso & Gino, 2011), an effect that appears to be mediated by emotion. Caruso and Gino's (2011) findings support the general claim that mental simulation (including visual imagery) makes moral considerations more salient. In contrast, the present research indicates that visual imagery makes some moral considerations (deontological ones) more salient while making other moral considerations (utilitarian ones) less salient. Thus, it is not simply the case that moral transgressions are emotionally evocative (Haidt, 2001) and that visual imagery heightens emotional responses (Holmes & Mathews, 2005; Holmes et al., 2008). Rather, the present research suggests that visual imagery plays a more distinctive philosophical role, preferentially favoring individual rights over the greater good when the two conflict.

The present results are predicted by construal-level theory (Liberman & Trope, 2008; Trope & Liberman, 2010) in combination with recent research associating low-level construals with visual processing and high-level construals with verbal processing (Amit, Algom, & Trope, 2009; Amit, Algom, Trope, & Liberman, 2009). Here, again, the key theoretical link is the distinction between ends and means, which plays key roles in both deontological ethics and construal-level theory. Deontological ethics emphasizes the importance of the means (Kant, 1785/1993), typically supporting the idea that the rights of the individual ought not be sacrificed as a means to a greater good. According to construal-level theory, ends and means differ in their level of abstractness, such that more abstract, high-level construals focus on the ultimate ends of an action, whereas more concrete, low-level construals focus on the more specific means used to achieve those ends. If, compared with ends, means are more concrete and are construed at a lower level, and if actions construed at a lower level are represented in a more visual way, then deontological concerns for

the means by which a goal is achieved should be preferentially supported by visual imagery, as was observed.

The dual-process theory of moral judgment and construal-level theory make the same prediction about the role of visual imagery in moral psychology. This convergence suggests a deep connection between these two previously unconnected theories. Greene (2007) argued that the automatic emotional responses elicited by moral dilemmas are essentially heuristics (Slovic, Finucane, Peters, & MacGregor, 2007), cognitive processes that attach negative value to prototypically violent actions because of their historically detrimental social effects. Critically, these responses are triggered by relatively low-level features of actions, such as whether they are active or passive (Cushman et al., 2006; Spranca, Minsk, & Baron, 1991), whether the harm is causally necessary for achieving the goal (Cushman et al., 2006), and whether the harm is inflicted using personal force (Greene et al., 2009). These are relatively low-level features in that they are readily observed or inferred from an observation of the physical act. For example, if one sees a person punch another in the face, one can see or infer that the behavior is active, that the harm is intended, and that the harm is inflicted by personal force. In contrast, the ends motivating such a behavior (e.g., exacting revenge vs. subduing a violent criminal) cannot be inferred simply from observation or from simulated observation (visual imagery). Thus, it may be that the dual-process theory and construal-level theory align because the dual-process theory is essentially concerned with the tension between one's reactions to actions construed at different levels by different cognitive systems.

The present results were foreshadowed by converging lines of research using functional brain imaging. Greene and his colleagues (Greene et al., 2004; Greene et al., 2001) have used functional MRI to compare dilemmas involving personal harm (e.g., the Footbridge dilemma) with other dilemmas involving impersonal harm. (For a revision of the personal/impersonal distinction, see Greene et al., 2009.) Personal dilemmas have two key features. First, they elicit automatic emotional responses that support deontological disapproval (Ciaramelli et al., 2007; Greene et al., 2008; Koenigs et al., 2007; Mendez et al., 2005; Paxton et al., 2011). Second, compared with impersonal dilemmas, personal dilemmas elicit greater activity in the brain's "default network" (Raichle et al., 2001), which appears to be involved in the mental simulation of events beyond the here and now, as when people think about the past, the future, or the contents of other minds (Buckner, Andrews-Hanna, & Schacter, 2008). Thus, the present results are consistent with the increased engagement of the default network in response to harmful actions that "push our moral buttons" (Greene et al., 2009, p. 364).

Finally, the present results address a more general and long-standing question about moral psychology, namely, the extent to which moral judgments are produced by a faculty that is specifically dedicated to moral cognition (Mikhail, 2007, 2011) or by the interaction of cognitive processes that are domain-general (i.e., not specifically dedicated to moral cognition; Greene & Haidt, 2002). The present research suggests that at least one kind of domain-general process—visual imagery—plays an influential role in moral judgment and, more important, that its influence is philosophically partisan.

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Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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Note

1. Following Greene (2007), we use *deontological* and *utilitarian* to mean "characteristically deontological" and "characteristically utilitarian," referring only to the judgment's content, not the motivation behind it.

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