Brief Report

The ups and downs of the moral personality: Why it's not so black and white

Patrick L. Hill *, Daniel K. Lapsley

University of Notre Dame, Department of Psychology, 118 Haggar Hall, Notre Dame, IN 46556, United States

ARTICLE INFO

ABSTRACT

Past research has suggested that people may form cognitive representations of concepts based on metaphoric dimensions. We report two studies that evaluate whether the moral personality is represented along two relevant metaphor dimensions: verticality and brightness. In addition, we sought support for an attentional bias towards immoral rather than moral traits. In Study 1, immoral personality traits were categorized slower when high in the visual field, consistent with expectations that people represent immorality as being low rather than high. In Study 2, only support for the immorality bias and not the brightness representation was found. Our results suggest evidence both that the moral personality is represented metaphorically, and for an adaptive attentional bias towards immoral traits.

© 2009 Elsevier Inc. All rights reserved.

1. Introduction

Johnson (1993) has suggested that morality is represented within metaphoric dimensions, which may directly influence moral decision-making and cognitive processing. For example, we commonly think that people are of *high* or *low* character, or that people can rise to or fall below social standards. Indeed, morality is often conceptualized along a vertical dimension with the moral self being represented higher than the immoral self. Additionally, people may think of moral individuals as being pure and clean, whereas immorality is often dirty and polluted (see also Haidt & Joseph, 2004; Zhong & Liljenquist, 2006). People may then also represent morality along a brightness dimension, in that morality is viewed as brighter than immorality. In line with this suggestion, past research has shown that violations committed by individuals wearing white may be viewed as less egregious than those by individuals wearing black (Frank & Gilovich, 1988; Vrij, 1997). However, it is uncertain whether the purity/pollution metaphor would lead people to represent morality along a brightness dimension, because we may form representations only along perceptual dimensions *specifically mentioned* in the metaphor.

Recently, Meier and Robinson (2004, Meier, Robinson, & Clore, 2004) reported evidence that metaphor representations may influence our cognitive processing of stimuli. For positively valenced words, they demonstrated that participants categorized these words more quickly when they were higher in the visual field and when they are written in white font. For negatively valenced words, participants categorized these more quickly when the words were lower in the visual field and written in black font. This

suggests that participants mentally represented positive–negative valence along vertical and brightness dimensions. Additionally, Meier, Sellbom, and Wygant (2007) found similar effects for moral and immoral words with respect to verticality. Moral words were categorized more quickly when at the top of the screen, while immoral words were categorized more quickly near the bottom.

The current study attempted to replicate and extend these latter results in two ways. First, we focused solely on moral and immoral *personality traits* in our study. Meier et al. (2007) chose ten stimuli that did include personality traits (i.e., truthful, trustworthy, and dishonest), but also included words related to moral concepts and actions (i.e., nurture, adultery, and molest). Instead, we focused solely on moral personality traits, following recent evidence that we form distinct schematic representations of moral individuals and different moral personality traits (Lapsley & Lasky, 2001; Narvaez, Lapsley, Hagele, & Lasky, 2006; Walker & Hennig, 2004; Walker & Pitts, 1998). Therefore, we evaluated whether moral personality schemas are represented metaphorically rather than the more general "morality" and "immorality" schemas used by Meier et al. (2007). Second, we evaluated whether morality is represented metaphorically along a brightness dimension, in addition to the vertical dimension. This follows from Johnson's (1993) suggestion of a purity/pollution representation of morality (see also Haidt & Joseph, 2004).

Additionally, past research has suggested that immoral traits may be particularly salient when forming person perceptions (De Bruin & Van Lange, 2000; Wojciszke, 1994). For example, De Bruin and Van Lange (2000) asked participants to assign credits to themselves and to a fictitious partner, for whom they could either receive information about the partner's morality or competence. This information could be positive or negative. First, as indicated by longer reading times, participants were shown to cognitively

---

* Corresponding author. Fax: +1 574 631 8883.
  E-mail address: phill1@nd.edu (P.L. Hill).

attend more to negative rather than positive morality information. Second, once they received negative morality information, participants were less persuaded by additional positive information. This suggests that immorality personality traits may be more salient than moral personality traits. Additionally, this follows evolutionary theories of morality to the extent that it is evolutionarily adaptive to attend to those who are immoral in order to avoid betrayal and injury (Krebs, 2008).

In line with this proposed "immorality bias," two additional predictions can be made. First, participants should take longer to classify immoral traits than moral traits, because immoral traits will be more salient and require more attention. Second, with respect to metaphors, people may be more likely to form metaphor representations for stimuli that are "in the breach". Specifically, immoral traits should be particularly slow to classify when they are discrepant with what is expected as a result of their representation (i.e., when they are higher in the visual field, and when they are printed in white). This is discrepant from Meier et al's. (2007) findings, as they suggested that their interaction (moral context by vertical position) was largely carried by differences in responding to the moral rather than immoral terms. Therefore, the current studies first sought to evaluate the moral metaphors proposed by Johnson (1993), using Meier and colleagues' (Meier & Robinson, 2004; Meier et al., 2004; 2007) methodology. However, it was also of interest to provide further support for a possible immorality bias in personality.

Two studies were performed to evaluate these hypotheses. For both, participants were asked to categorize words as either "moral" or "immoral". In Study 1, words differed with respect to whether they appeared in the upper or lower half of the computer screen. In Study 2, words differed as to whether they were printed in white or black font on a grey background.

2. Study 1

In Study 1, we sought to replicate Meier et al's. (2007) results on morality and verticality, and extend them specifically to moral personality. In their study, they found an interaction between moral valence and vertical position, and suggested that moral concepts may have "carried" the interaction. Counter to this suggestion, we would expect to again find a significant moral content by vertical position interaction with personality traits, but that this interaction will be carried by immoral concepts instead. Given the increased salience of immoral traits during person perception, one would expect that immoral traits may be more likely to be represented metaphorically. Presumably, if people attend more to individuals of low moral character, they are more likely to tell others about immoral rather than moral individuals, and thus immorality should be more linked to metaphors than morality.

2.1. Method

2.1.1. Participants
Thirty undergraduates (50% female, M_{age} = 19.7 years) participated for course credit.

2.1.2. Procedure
Participants were told to categorize words using the "1" and "9" keys as to whether they were moral or immoral, with key assignment counterbalanced across participants. Words appeared in white font on a grey background either 48 mm above or below the center of the screen, and remained on the screen until the participant responded. After response, the screen went blank for 500 ms before the next word was presented. Participants completed 40 categorization trials, comprised of 2 (Moral valence) × 2

(Vertical position) × 10 words, in a random order. Moral traits were selected from those rated very typical of moral and good character prototypes from previous studies (Lapsley & Lasky, 2001; Walker & Pitts, 1998). Immoral traits were the antonyms of words selected from these lists.

2.2. Results

For both studies, all inaccurate responses were deleted, and any participants who failed to achieve at least 70% accuracy within any condition were eliminated. In addition, all response times shorter than 250 ms and longer than 3000 ms were eliminated to avoid outlier effects. Five participants were removed following these guidelines. A 2 (Moral valence: moral vs. immoral) × 2 (Vertical position: high vs. low) ANOVA was performed on the latencies, which are represented in Fig. 1. The main effect of position was significant, $F(1, 24) = 16.75$, $p < .001$, $\eta_p^2 = .41$, indicating that participants categorized trait words more quickly when they were in the lower visual field (1026 ms vs. 1125 ms). The main effect of moral valence was also significant, $F(1, 24) = 15.37$, $p < .01$, $\eta_p^2 = .39$, indicating that participants categorized moral trait words more quickly than immoral trait words (1015 ms vs. 1137 ms). However, these main effects were qualified by a position by valence interaction, $F(1, 24) = 4.30$, $p < .05$, $\eta_p^2 = .15$. Participants' response times for the four conditions were as follows: moral/low (991 ms), moral/high (1038 ms), immoral/low (1061 ms), and immoral/high (1212 ms). Tests of the simple effects found that while the moral/low and moral/high conditions did not differ significantly, $t(24) = 1.77$, $p > .05$, $d = .28$, participants categorized immoral trait words more quickly when these traits were presented in the lower visual field, $t(24) = 3.66$, $p < .01$, $d = .71$. These results suggest that people may represent the moral personality along the vertical dimension, but that this may only be true for the "immoral personality".

3. Study 2

In Study 2, we sought to test the boundaries of moral metaphors by evaluating whether the moral personality may also be represented along a brightness dimension. Given that this dimension is only inferred from, and not related directly to, the purity/pollution metaphor, evaluating the brightness effect will test the strength of the link between linguistic expressions and metaphor representations in the domain of moral personality. We again would expect to find a moral valence main effect, in order to support the immorality bias. In addition, a valence by color interaction would demonstrate that we represent moral personality traits along a brightness dimension.
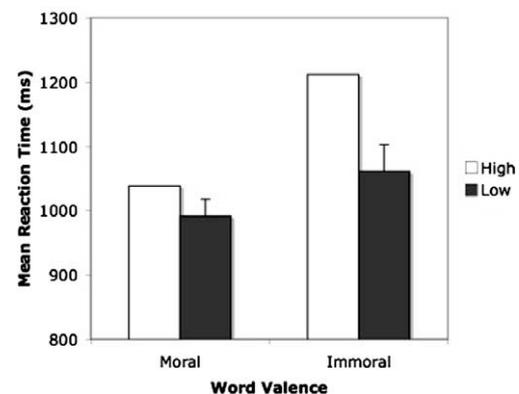

Fig. 1. Mean categorization latency as a function of word valence and vertical position. Error bars show the standard error of the difference between adjacent conditions.
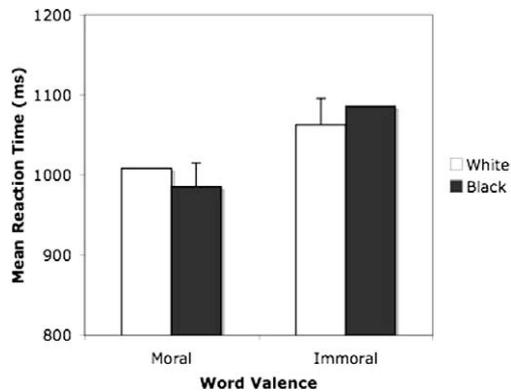
Fig. 2. Mean categorization latency as a function of word valence and font color. Error bars show the standard error of the difference between adjacent conditions.

3.1. Method

3.1.1. Participants

Thirty-five undergraduates (51% female, M_{age} = 19.9 years) participated for course credit.

3.1.2. Procedure

The procedure was identical to Study 1 except for two changes. First, words were always displayed at the midpoint, but now they were printed in either black or white font on a grey background. Second, to promote greater accuracy, the category labels were placed at the bottom of the screen above the correct key responses (i.e., "Immoral" right above the "1" key).

3.2. Results

The accuracy criterion used in Study 1 led to the removal of two participants in Study 2. We performed a 2 (Moral valence: Moral vs. immoral) × 2 (Font color: black vs. white) ANOVA on the latencies, which are represented in Fig. 2. There was no main effect of font color, $F(1, 32)$ = 0.00, but there was a main effect of moral valence, $F(1, 32)$ = 10.20, $p < .01$, $\eta_p^2 = .24$, indicating that participants categorized moral traits more quickly than immoral traits (997 ms vs. 1074 ms). The interaction was not significant, $F(1, 32)$ = 1.24, $p > .1$, $\eta_p^2 = .04$. Furthermore, the condition means were not consistent with predictions following a metaphor representation, which were as follows: moral/black (985 ms), moral/white (1008 ms), immoral/white (1062 ms), and immoral/black (1086 ms). Therefore, it appears as though moral metaphor representations are closely linked to the specific metaphors we use in everyday life, and fail to generalize to related perceptual dimensions that are not expressed directly in the metaphors.

4. General discussion

In two studies, we evaluated whether people represent the moral personality along metaphoric dimensions. In Study 1, we showed that moral personality traits are represented along the vertical dimension, evidenced by a significant moral valence by vertical position interaction. Counter to previous work with more general moral concepts (Meier et al., 2007), it appears that the interaction was due largely to differences in responding to immoral traits. Participants took longer to categorize immoral than moral traits, and this was particularly true when the immoral traits were presented in the upper visual field. This finding supports the notion that immoral traits are represented metaphorically. In Study 2, we tested the extent of metaphor

representations of the moral personality by evaluating whether Johnson's (1993) suggested purity/pollution metaphor would correspond to differences in responding along a brightness dimension. Our results suggest that moral traits do not appear to follow a white/moral to black/immoral representation. Importantly though, Study 2 found further support for an "immorality bias," insofar as participants were again slower to categorize immoral words than moral ones.

These results suggest three primary theoretical notes of interest. First, we do find evidence that people differentially attend to immoral traits. This differential attention to morality in the breach is considered adaptive insofar as avoiding those seeking to betray us would lead to greater evolutionary success (Krebs, 2008). It is interesting to note that immoral traits largely carried the interaction in Study 1, which suggests that people may be more likely to use metaphors when discussing immoral rather than moral individuals. One reason is that people generally may be more likely to discuss immoral people than moral people, because it would be more evolutionarily adaptive to point out those individuals who may cause harm. However, this is speculative and a topic for future research.

Second, while our general conclusions are similar, the differences between our results and those of Meier et al. (2007) are theoretically noteworthy. The primary methodological difference between our Study 1 and their Experiment 2 was our sole use of personality traits. We suggest that this difference led to our interaction being carried by the immoral stimuli, while their results suggested the opposite. These contrasting results underscore the fact that people do have particularly nuanced moral schemas, which have different effects upon activation (Lapsley, 1998; Lapsley & Narvaez, 2004; Walker & Hennig, 2004).

Third, it is informative to note that these representations appear to be integrally linked to the specific metaphors used. In Study 2, we assessed whether the purity/pollution metaphor would generalize to a related perceptual dimension, brightness. However, we failed to find evidence that participants represented moral personality traits along this dimension. This provides further evidence for a close link between our language use and our representations of the world (Gibbs, 1992; Glucksberg, 2001; Lakoff & Johnson, 1999). It appears that we only represent moral traits along those perceptual dimensions *specifically invoked* in the metaphors we use. Given the link between the moral personality and metaphor representations, future research should evaluate further whether these representations do influence higher-level moral decision-making as Johnson (1993) has suggested.

References

De Bruin, E. N. M., & van Lange, P. A. M. (2000). What people look for in others: Influences of the perceiver and the perceived on information selection. *Personality and Social Psychology Bulletin, 26*, 206–219.

Frank, M. G., & Gilovich, T. (1988). The dark side of self – and social perception: Black uniforms and aggression in professional sports. *Journal of Personality and Social Psychology, 54*, 74–85.

Gibbs, R. W. Jr. (1992). Categorization and metaphor understanding. *Psychological Review, 99*, 572–577.

Glucksberg, S. (2001). *Understanding figurative language*. New York: Oxford University Press.

Haidt, J., & Joseph, C. (2004). Intuitive ethics: How innately prepared intuitions generate culturally variable virtues. *Daedalus, 133*, 55–66.

Johnson, M. (1993). *Moral imagination: Implications of cognitive science for ethics*. Chicago: University of Chicago Press.

Krebs, D. L. (2008). Morality: An evolutionary account. *Perspectives on Psychological Science, 3*, 149–172.

Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenges to western thought*. New York: Basic Books.

Lapsley, D. K. (1998). An outline of social-cognitive theory of moral character. *Journal of Research in Education, 8*, 25–32.

Lapsley, D. K., & Lasky, B. (2001). Prototypic moral character. *Identity, 1*, 345–363.

Lapsley, D. K., & Narvaez, D. (2004). A social cognitive approach to the moral personality. In D. K. Lapsley & D. Narvaez (Eds.), *Moral development, self, and*

identity: Essays in honor of Augusto Blasi (pp. 189–212). Mahwah, NJ: Lawrence Erlbaum Associates.

Meier, B. P., & Robinson, M. D. (2004). Why the sunny side is up: Associations between affect and vertical position. *Psychological Science, 15*, 243–247.

Meier, B. P., Robinson, M. D., & Clore, G. L. (2004). Why good guys wear white: Automatic inferences about stimulus valence based on brightness. *Psychological Science, 15*, 82–87.

Meier, B. P., Sellbom, M., & Wygant, D. B. (2007). Failing to take the moral high ground: Psychopathy and the vertical representation of morality. *Personality and Individual Differences, 43*, 757–767.

Narvaez, D., Lapsley, D. K., Hagele, S., & Lasky, B. (2006). Moral chronicity and social information processing: Tests of a social cognitive approach to the moral personality. *Journal of Research in Personality, 40*, 966–985.

Vrij, A. (1997). Wearing black clothes: The impact of offenders' and subjects' clothing on impression formation. *Applied Cognitive Psychology, 11*, 47–53.

Walker, L. J., & Hennig, K. H. (2004). Differing conceptions of moral exemplarity: Just, brave, and caring. *Journal of Personality and Social Psychology, 86*, 629–647.

Walker, L. J., & Pitts, R. C. (1998). Naturalistic conceptions of moral maturity. *Developmental Psychology, 34*, 403–419.

Wojciszke, B. (1994). Multiple meanings of behavior: Construing actions in terms of competence and morality. *Journal of Personality and Social Psychology, 67*, 222–232.

Zhong, C.-B., & Liljenquist, K. (2006). Washing away your sins: Threatened morality and physical cleansing. *Science, 313*, 1451–1452.