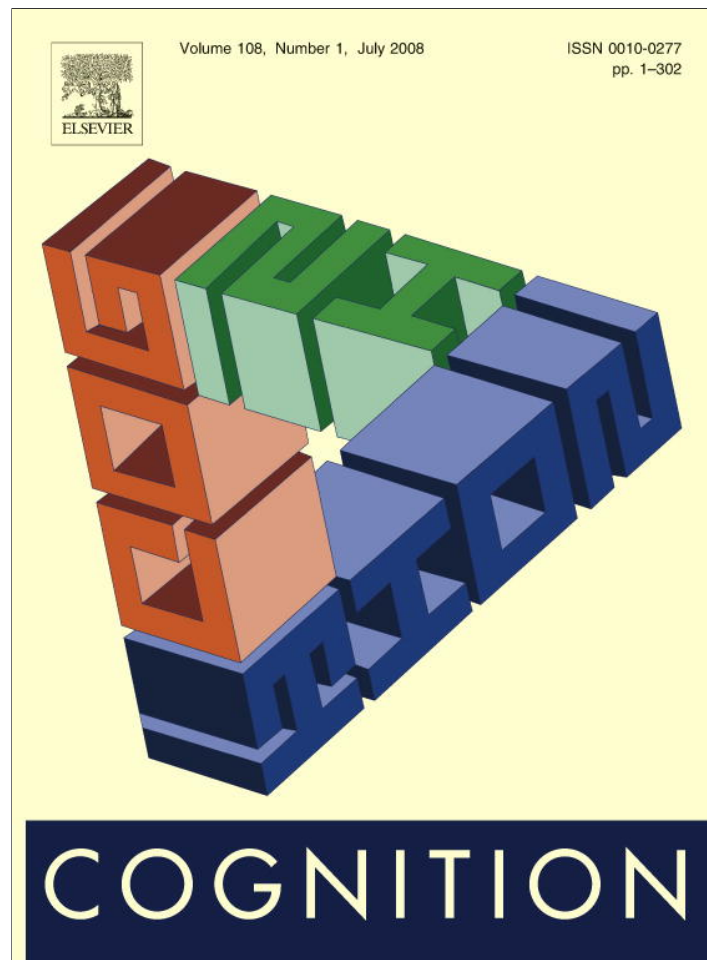


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Brief article

Moral appraisals affect doing/allowing judgments

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Abstract

An extensive body of research suggests that the distinction between doing and allowing plays a critical role in shaping moral appraisals. Here, we report evidence from a pair of experiments suggesting that the converse is also true: moral appraisals affect doing/allowing judgments. Specifically, morally bad behavior is more likely to be construed as actively ‘doing’ than as passively ‘allowing’. This finding adds to a growing list of folk concepts influenced by moral appraisal, including causation and intentional action. We therefore suggest that the present finding favors the view that moral appraisal plays a pervasive role in shaping diverse cognitive representations across multiple domains.

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1. Introduction

It is widely agreed that there is an important relationship between people’s moral judgments and their judgments about causation and intention, but there remains considerable uncertainty about precisely how that relationship works. The

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traditional view was that people *first* make judgments about causation and intention and *then* use those judgments as input to the process of moral appraisal (Shaver, 1985; Weiner, 1995). But recent research indicates a more complex relationship (for review, see Alicke, 2000; Knobe, 2006). Specifically, it appears that there is also an effect in the opposite direction: people's moral appraisals can actually influence judgments of causation and intention.

Much of this recent research has focused on the surprising ways in which people's moral appraisals can affect their intuitions as to whether a given behavior was performed intentionally or unintentionally (Knobe, 2006; Leslie, Knobe, & Cohen, 2006; Nadelhoffer, *in press*; Young, Cushman, Adolphs, Tranel, & Hauser, 2006). Many different theories have been offered to explain this effect, but for present purposes, we can distinguish two basic approaches. Some researchers hold that the effect is due to a special property of the attribution of intentional action in particular (Machery, *in press*; McCann, 2005; Meeks, 2004; Nichols & Ulatowski, *in press*), while others suggest that the effect reflects some more general phenomenon, which should apply to the attribution of other concepts as well (Alicke, 2000; Cushman, *in preparation*; Knobe, 2006). On the former view we would be surprised to discover an effect of moral appraisal in new and different cognitive domains, whereas on the latter view this is precisely what we would expect.

Our aim is to contribute to this debate by examining the influence of moral considerations on a very different aspect of cognition: the folk-conceptual distinction between *doing* and *allowing* (Bennett, 1998; Talmy, 1988). In ordinary English, this distinction is marked by the use of phrases like 'breaking' vs. 'allowing to break,' 'raising' vs. 'allowing to rise' and (most famously) 'killing' vs. 'allowing to die.' This conceptual distinction is sometimes held to be morally relevant. Hence, the American Medical Association holds that it is sometimes morally acceptable for doctors to let their patients die but that it is never acceptable for doctors to kill their patients (Rachels, 1975), and evidence from numerous studies suggests that ordinary folk judge doing harm much more immoral than allowing harm to occur (e.g., Baron & Ritov, 2004; Spranca, Minsk, & Baron, 1991).

Paralleling work on the concepts of intentional action and causation, what we want to know now is whether the causal arrow also goes in the other direction. That is, we want to know whether people's moral appraisals can influence their judgments as to whether a given act counts as 'doing' or 'allowing.' Such an effect would provide additional evidence that there is a quite general phenomenon whereby moral appraisals influence various other aspects of human cognition.

2. Experiment 1

Experiment 1 tested whether people are more likely to view morally bad actions that result in death as actively ending a life, as opposed to passively allowing a life to end. Subjects read about a doctor who removed life support from an anonymous, unconscious and terminally ill patient. In the 'morally bad' version of the case, the doctor ended the patient's life as a matter of convenience, while in the 'morally

ambiguous' version, the doctor ended the patient's life in order to preserve the patient's dignity. (This latter case is morally ambiguous insofar as one's judgment about it is likely to depend on one's attitude toward euthanasia.) This design makes it possible both (a) to compare the morally bad condition with the morally ambiguous condition and (b) within each condition, to compare subjects who regard euthanasia as morally good with those who regard euthanasia as morally bad.

2.1. Methods

Subjects voluntarily logged on to the Moral Sense Test website (moral.wjh.harvard.edu), which has been successfully used in previous research on moral judgment (Cushman, Young, & Hauser, 2006; Hauser, Cushman, Young, Jin, & Mikhail, 2007). Subjects were presented with the morally bad or ambiguous case in a between-subjects design, with 150 subjects per condition. The text of the scenarios is available at moral.wjh.harvard.edu/methods.html. A paraphrase follows:

Dr. Bennett is an emergency-room physician. An unconscious homeless man is brought in, and his identity is unknown. His organ systems have shut down and a nurse has hooked him up to a respirator. Without the respirator he would die. With the respirator and some attention from Dr. Bennett he would live for a week or two, but he would never regain consciousness and could not live longer than two weeks.

Dr. Bennett thinks to himself,

Morally ambiguous case: "This poor man deserves to die with dignity. He shouldn't spend his last days hooked up to such a horrible machine. The best thing to do would be to disconnect him from the machine."

Morally bad case: "This bum deserves to die. He shouldn't sit here soaking up my valuable time and resources. The best thing to do would be to disconnect him from the machine."

For just that reason, Dr. Bennett disconnects the homeless man from the respirator, and the man quickly dies.

Subjects then responded to the following three items on a seven-point scale:

- (1) Is it more appropriate to say that Dr. Bennett ended the homeless man's life, or that he allowed it to end? (1: "ended" to 7: "allowed to end")
- (2) Was the doctor's behavior morally wrong? (1: "not at all" to 4: "somewhat" to 7: "very much")
- (3) In general, is it morally wrong for a doctor to remove treatment from a patient who wishes to die? (1: "not at all" to 4: "somewhat" to 7: "very much")

Subjects always responded to the items in this order.

2.2. Results

The manipulation of moral valence succeeded: subjects judged the doctor to have behaved significantly worse in the morally bad case than the morally ambiguous case ($t(298) = 7.3, p < .001$). As predicted, subjects rated the morally bad doctor to have ended the patient's life, as opposed to allowing it to end, significantly more than the morally ambiguous doctor ($t(298) = 4.3, p < .001$; see Fig. 1).

There was no effect of condition on subjects' self-reported attitudes towards euthanasia ($t(298) = 0.4, ns$). There was no significant correlation with doing/allowing judgments of the morally bad doctor ($r = .07, N = 150, ns$). However, subjects' attitudes towards euthanasia did significantly correlate with their doing/allowing judgments of the morally ambiguous doctor ($r = .18, N = 150, p < .05$). Specifically, those who condemned euthanasia were more likely to indicate that the doctor ended the patient's life. Descriptive statistics for all dependent measures are reported in Table 1.

2.3. Discussion

In Experiment 1, subjects viewed cases involving the removal of life support from a terminally ill patient. These cases were designed to differ only in the moral status of a doctor's behavior, and indeed subjects indicated greater agreement with the statement that the doctor acted wrongly in the morally bad case. Critically, in the morally bad case subjects also indicated greater agreement with the statement that the doctor ended the patient's life, as opposed to allowing it to end. This result strongly suggests that moral appraisals influence the way that the doing/allowing distinction is deployed.

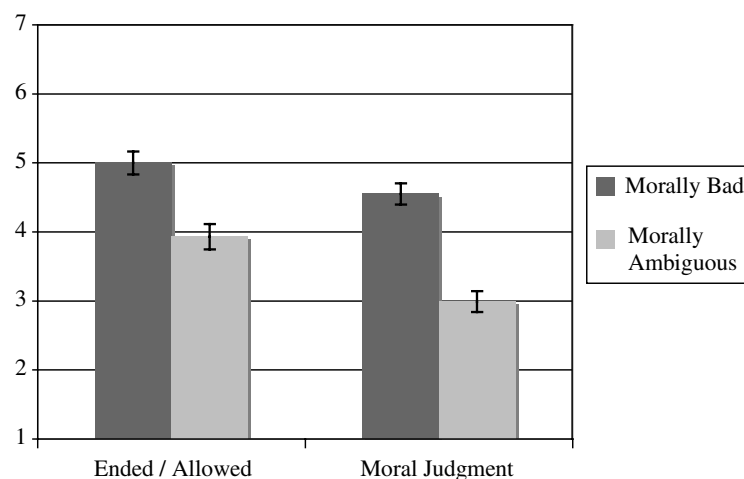


Fig. 1. Mean judgments for Experiment 1. All scales ran from 1 to 7.

Table 1
Descriptive statistics from Experiment 1

		Mean	<i>SD</i>
Morally bad case	Do/Allow	4.55	1.88
	Doctor Wrong	3.93	2.23
	Euthenasia Wrong	2.53	1.76
Morally ambiguous case	Do/Allow	2.99	1.83
	Doctor Wrong	5.00	2.05
	Euthenasia Wrong	2.61	1.67

Not only did doing/allowing judgments differ between conditions, there was a significant correlation between subjects' attitudes towards euthanasia and their use of the doing/allowing distinction within the morally ambiguous condition, in which the doctor ends the patient's life out of mercy. In the morally bad case, however, no such correlation was observed. Possibly, attitudes towards euthanasia may not have influenced subjects' moral appraisal of the doctor as strongly in the morally bad case because the doctor's behavior was not a characteristic "mercy killing", but rather was motivated by a lack of concern for the indigent and an interest in the effective distribution of resources. Experiment 2 provides a more direct test of the correlation between subjects preexisting moral attitudes and their use of the doing/allowing distinction.

3. Experiment 2

In the second experiment, subjects were presented with a single scenario describing a pregnant woman, Sarah, who discovers that her fetus has a vitamin deficiency and deliberately abstains from eating foods with the vitamins necessary to sustain the pregnancy. Attitudes regarding abortion were predicted to influence subjects' construal of Sarah's behavior as actively causing or passively allowing the death of her fetus. Additionally, Experiment 2 probed whether attitudes towards abortion predict whether Sarah's behavior is construed as 'making the levels of vitamin B6 decrease' or 'allowing the levels of vitamin B6 to decrease.' This would indicate a role for moral appraisals in shaping doing/allowing judgments that do not explicitly mention morally relevant harms such as death.

3.1. Method

Subjects ($N = 300$) voluntarily logged on to the Moral Sense Test website. Subjects answered a brief series of demographic questions and then rated their attitudes towards abortion on a seven-point scale ranging from 'Strongly Pro-Life' to 'Strongly Pro-Choice.' Each subject then read the identical scenario:

When Sarah is two months pregnant, she goes to her doctor's office for a checkup. After running some tests, Sarah's doctor informs her that the fetus in her womb

has a rare vitamin B6 deficiency. If nothing is done, then the fetus's vitamin B6 levels will drop to the level where the fetus will die. The only way to keep the B6 levels high enough is for Sarah to begin eating lots of foods that are high in B6, such as potatoes, bananas, and lentils. If Sarah eats this special diet, then the fetus will develop normally. If she does not eat the special diet, the fetus will die within one month.

Sarah has very been worried about the financial and emotional burden of a child. Also, Sarah believes that life does not begin in the first trimester of a pregnancy. After much thought, she decides that she would strongly prefer not to carry the pregnancy to term. For this reason, Sarah does not change her diet or eat special foods high in B6. As predicted, the fetus's B6 levels decrease. One month later, the fetus dies.

While the scenario remained on the screen, subjects answered a series of questions. Subjects were required to answer each question before proceeding to the next. The questions were:

- (1) Is it more appropriate to say that Sarah made the fetus die, or that Sarah allowed the fetus to die?
- (2) Is it more appropriate to say that Sarah decreased levels of vitamin B6, or that Sarah allowed the levels of vitamin B6 to decrease?
- (3) How much do you agree with the following statement: It was morally wrong for Sarah not to change her diet.
- (4) How much do you agree with the following statement: Sarah caused the levels of vitamin B6 to decrease.
- (5) How much do you agree with the following statement: Sarah caused the fetus to die.
- (6) How much do you agree with the following statement: The vitamin deficiency caused the fetus to die.

Questions 1 and 2 always occurred first and were counterbalanced for order between subjects; questions 3–6 were then presented, again counterbalanced for order. Each question was evaluated on a seven-point scale. A full description of the scales used and a link to the online test is available at moral.wjh.harvard.edu/methods.html.

3.2. Results

Subjects who rated themselves more pro-life were more likely to describe Sarah's behavior as making the fetus die rather than allowing it to die ($r = .20$, $p < .001$, $N = 300$), and moral judgments of Sarah's behavior correlated significantly with judgments of whether she made the fetus die or allowed it to die ($r = -.40$, $p < .001$, $N = 300$).

This pattern was also observed for the 'decrease/allow to decrease' item: attitudes on abortion predicted responses to the 'decrease/allow to decrease' item ($r = .21$,

Table 2
Descriptive statistics for Experiment 2

	Mean	SD
Made die/Allowed to die	4.91	2.24
Decreased/Allowed to decrease	5.48	1.99
Morally wrong to change diet	3.75	2.13
Sarah caused the deficiency	5.80	1.57
Sarah caused the fetus to die	4.51	2.02
B6 decrease caused death	4.15	2.21

All scales ran from 1 to 7.

$p < .001$, $N = 300$), and this was the case even for the subset of subjects who responded to the ‘decrease/allow to decrease’ item first, before the ‘make die/allow to die’ item ($r = .18$, $p < .05$, $N = 150$). There was also a significant correlation between the ‘decrease/allow to decrease’ item and moral judgments of Sarah’s behavior ($r = .32$, $p < .001$, $N = 300$). This correlation was marginally significant for the subset of subjects who responded to the ‘decrease/allow to decrease’ item first ($r = .16$, $p < .06$, $N = 150$).

Subjects who rated themselves more pro-life also indicated a greater role for Sarah in causing the death of the fetus ($r = .30$, $p < .001$, $N = 300$), as well as in causing the levels of vitamin B6 to decrease ($r = .18$, $p < .01$, $N = 300$). Furthermore, these subjects rated the vitamin deficiency to have played a relatively lesser causal role in the death of the fetus ($r = .16$, $p < .01$, $N = 300$). Descriptive statistics for all dependent measures are reported in Table 2.

3.3. Discussion

As predicted, attitudes towards abortion significantly predicted subjects’ construal of Sarah’s behavior as either making the fetus die or allowing the fetus to die. This result further supports the hypothesis that moral appraisals shape the use of the doing/allowing distinction. Critically, the correlation between moral attitudes and the use of the doing/allowing distinction cannot be attributed to the well-known effect of the doing/allowing distinction on moral judgment (Baron & Ritov, 2004; Spranca et al., 1991) because subjects were asked for their attitudes on abortion before reading the case of Sarah.¹ This temporal ordering invites stronger causal inference: subjects’ preexisting moral attitudes apparently contributed to their construal of Sarah’s behavior as ‘making’ vs. ‘allowing’ the fetus to die.

¹ Providing further support to this causal inference, females were significantly more likely than males to construe Sarah’s behavior as an allowing event ($t(289) = 2.1$, $p < .05$). One likely explanation is that females tend to be more forgiving of Sarah’s behavior. However, this effect was not apparent in explicit measures of moral judgment: there was no significant difference in moral judgment of Sarah’s behavior by gender ($t(298) = 0.6$, *ns*) or in attitudes on abortion by gender ($t(298) = 0.8$, *ns*). Possibly, the observed difference in doing/allowing judgments taps an *implicit* moral appraisal that differs by gender, but which fails to influence the *explicit* moral judgments articulated in the latter two measures.

Additionally, attitudes on abortion were found to be predictive of subjects' construal of Sarah's behavior as 'making the levels of vitamin B6 decrease' or 'allowing the levels of vitamin B6 to decrease.' Paralleling this result, attitudes towards abortion predicted not only ratings of Sarah's causal role in causing the death of the fetus, but also Sarah's role in causing the levels of vitamin B6 to decrease in the fetus. Although the observed correlations were generally of a small-to-medium size, they were very consistent across diverse measures. These findings are consistent with an effect of moral appraisal that extends deeply to the basic building blocks of action and event understanding, altering the perception of an agent as an intervening force on a series of events causally prior to the occurrence of any harmful outcome.

4. General discussion

The present studies suggest that people's moral appraisals affect their application of the doing/allowing distinction. This effect was consistent across two different methodologies, one experimental and the other correlational. Moreover, it arose both for the use of terms with an inherent moral connotation ("made/allowed the fetus to die") and for terms without an inherent moral connotation ("decreased/allowed the vitamins to decrease").

This finding contributes to a broader debate about the relationship between moral appraisal and other domains of cognition. Recent studies have demonstrated that people's moral appraisals affect their applications of certain apparently non-moral concepts, including the concept of intentional action and the concept of causation (Alicke, 1992; Knobe, 2006). Some researchers attempt to explain the phenomenon in terms of the specific features of one or another specific concept (Machery, *in press*; McCann, 2005; Meeks, 2004; Nichols & Ulatowski, *in press*), while others attempt to explain it in terms of some very general process that might be expected to affect a broad array of other concepts (Alicke, 2000; Cushman, *in preparation*; Knobe, 2006). The fact that we now find an impact of moral appraisal on the classification of behavior as 'doing' or 'allowing' gives us reason to suspect that the second of these broad families is closer to the truth.

Within this second family, one can distinguish a number of different detailed hypotheses. One hypothesis would be that people's moral appraisals are truly impacting the way they *think* about certain behaviors; another would be that the moral appraisals are simply impacting the way people *talk* about those behaviors. The former hypothesis would say that people's moral appraisals affect their underlying conceptualization of the event, while the latter would say that people who regard a behavior as morally wrong merely reluctant to appear to let the agent off the hook by using words like 'allowing.' In research on the impact of moral judgment on intuitions about intentional action, several recent attempts have been made to distinguish these possibilities (Cushman, *in preparation*; Knobe, 2006; Nichols & Ulatowski, *in press*; Zalla & Machery, *in preparation*), and the evidence so far has supported the view that moral judgment affects how intentional action is repre-

sented, not just how it is communicated. An important direction for future research is to evaluate this same question in the case of the doing/allowing distinction.

Although these hypotheses posit very different underlying psychological processes, both suggest that the effects uncovered here are the result of a truly pervasive process whose influence can be felt on a wide range of distinct domains of cognition. The challenge now is to provide a mechanism for this effect, and to reconcile the standard view that moral judgment is derived from causal and intentional representations with the new evidence that the reverse relationship holds as well.

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