Construal level affects intuitive moral responses to narrative content

Nicholas A. Lester (nlester@umail.ucsb.edu)
Department of Linguistics, South Hall 3432
Santa Barbara, CA 93106 USA

René Weber (renew@comm.ucsb.edu)
Department of Communication, 4005 Social Sciences & Media Studies Bldg
Santa Barbara, CA 93106 USA

Abstract

The Model of Intuitive Morality and Exemplars (MIME) predicts a mutual dependency between the moral scrutiny of mediated narratives and media exposure. This study proposes moral judgments of media content are not only related to basal moral domain salience and exemplars, but also to the immediate processing state of the individual at the moment of exposure. An experiment manipulating construal level prior to exposure to a mediated narrative was conducted to test this proposal. The results suggest that evaluations of moral violations are modulated by construal level. High-level construal led to harsher, more consistent judgments of domain-violator morality, eliminating the effect of baseline moral intuitions. Low-level construal induced an apparent trade-off in moral evaluation strategy which is sensitive to both narrative outcome and domain salience. When domain violators were punished, intuitive moral salience was negatively correlated with moral evaluations; however, when domain violators were rewarded, the opposite trend emerged. These findings indicate the need for an adjustment to the MIME model to allow for processing states to interact with moral domain salience and moral judgments of media content. They also suggest that the strength and quality of moral intuitions are not robust to broader cognitive processes, but interact with them.

Keywords: Model of intuitive morality and exemplars; moral foundation theory; construal level theory; media enjoyment.

Introduction

Recent work on media perception has emphasized the role of instinctive moral responses in shaping the enjoyment of media narrative. This research explains that the affective dispositions that individuals form towards characters and events in a given dramatic context vary as a function of their basal moral inclinations. For example, characters that violate heavily weighted moral principles tend to be evaluated more negatively than characters that violate less heavily weighted principles (Tamborini, Eden, Bowman, Grizzard, Weber, & Lewis, 2013). These intuitive moral inclinations are thought to interact with experientially derived schemas or exemplars, which allow for the fast mapping of moral expectations onto characters (e.g., hero vs. villain), even on the basis of very little evidence. However, the specifics of the timeline for the operation of schema-based and intuition-based processes remains a point of debate (Raney, 2004).

The most comprehensive model to emerge from this strand of research is the Model of Intuitive Morality and Exemplars (MIME; Tamborini, 2013). The MIME integrates short-term and long-term processes to account for individuals’ local responses to media content and global patterns of selective media exposure. The short-term processes identified so far have dealt with relatively enduring qualities of the individual (e.g., basal moral intuitions) or properties of the stimulus itself (e.g., similarity to available moral-narrative schemas or presence/absence of moral conflict). However, several studies working from the perspective of Construal-level Theory (CLT) have demonstrated that more transient cognitive states can have powerful effects on moral judgment (Eyal, Liberman, & Trope, 2008; Gong & Medin, 2012; Žeželj & Jokić, 2014).

In the present study, we attempt to link these two strands of research.

Intuitive Morality and MIME

The fundamental structure of the MIME is based on the core tenants of Disposition Theory (DT; Zillmann, 2000). Both approaches hold that the enjoyment of dramatic narrative hinges on the satisfaction of moral expectations developed relative to characters and the outcomes they experience. In the classical model, these moral expectations arise from continuous moral scrutiny over the course of the narrative. If we deem a character to be morally righteous, we form a positive affective disposition towards that character. This disposition leads us to empathize with that character, and so to hope that they receive positive outcomes. The opposite situation holds for characters toward which we have developed negative dispositions: we do not empathize with them and hope for negative outcomes. This path from moral scrutiny to empathic response has received empirical support. Weber, Tamborini, Lee, and Stipp (2008) asked participants to rate the characters and plots of a popular soap opera along several dimensions: morality of characters, liking of the characters, and perceived positivity/negativity of character outcomes. Their findings show correlations between perceived character morality, degree of positivity or negativity of outcome relative to perceived character morality, and character liking. But what system informs the constant moral evaluations which underlie the formation of affective dispositions?

Moral Foundations Theory (MFT; Haidt, 2001; Haidt & Joseph, 2007) provides part of the answer. MFT proposes that every moral judgment is in part determined by a spontaneous, emotionally driven response – a gut intuition – that appears immediately and with a simple valence. These intuitions emerge in five distinct domains: care/harm,
fairness/cheating, loyalty/betrayal, authority/ subversion, and sanctity/degradation (Haidt & Joseph, 2007). The care/harm domain relates to empathy and suffering; fairness/cheating pertains to reciprocity rooted in a basic sense of justice; loyalty/betrayal refers to the upholding of social bonds; authority/subversion relates to social hierarchies; and sanctity/degradation captures a general aversion to disgusting objects or actions. These domains are cross-culturally stable; however, the relative weighting of the domains – so-called domain salience – tend to vary between cultures, subcultures, and even individuals.

Tamborini (2013) places these five dimensions at the heart of MIME. The baseline salience of each domain in both absolute and relative terms interacts with cultural environment, media exposure, and situational exemplar salience to determine moral appraisals. Expanding on the research of Weber et al. (2008), a few studies have begun to validate the effects of domain salience on the formation of affective dispositions towards characters and outcomes. For instance, Tamborini et al. (2013) presented participants with several brief narratives. In each narrative, the main character commits a transgression relevant to only one of the intuitive moral domains. The narratives were also manipulated for outcome. Under one condition, the main characters experienced positive outcomes; in the other condition, they experienced negative outcomes. Tamborini and colleagues also collected information about how heavily the participants’ tended to weight each moral domain when making moral judgments. As predicted, moral transgressions were judged more harshly when participants cared more about the domain.

One possibility not explored in the context of MIME so far is that moral intuitions and exemplar salience might be shaped by a person’s immediate cognitive environment. Cognitive environment here refers to general properties of an individual’s cognitive processing state immediately prior to and concurrent with the media exposure. One reason to believe that cognitive environment could affect even these rapid, automatic moral intuitions comes from the growing literature on CLT (Trope & Liberman, 2010). Studies in this vein have repeatedly shown that judgments from many different cognitive domains depend on how the individual represents or construes the target of a judgment before it is passed on to other cognitive systems.

**Construal-level Theory**

CLT proposes that one and the same stimulus can be processed – or construed – at different levels of abstraction (or concreteness). The system that imposes this degree of abstraction, or construal level, exerts its effect before other ‘downstream’ cognitive systems have access to the conceptual material. As such, it acts as a kind of filter, one which determines both what information is to be extracted from the perceptual input and how that information should be integrated into the resulting concept. Construal levels are usually divided into two opposing types, high-level construals and low-level construals. High-level construals have been shown to result in schematic, homogeneous, and decontextualized representations. Low-level construals, on the other hand, produce specific, heterogeneous, and context-dependent representations. Differences in construal level have been shown to affect downstream cognition in several domains (see Trope and Liberman, 2010, for a review).

**CLT and Moral Evaluation**

Eyal, Liberman, and Trope (2008; Study 1) tested whether manipulations of construal level would alter participants’ evaluations of moral transgressions. Participants were asked to read several vignettes containing morally reprehensible behavior (along with mitigating circumstances that might partially justify that behavior; e.g., a family eating their pet dog after it has been accidentally run over). After reading each vignette, the participants were presented either with an expression summarizing the general moral principle at stake (e.g., dishonoring the family pet; high-level construal) or a specific description of the actions involved (e.g., eating the meat of a dead dog; low-level construal). Eyal et al. found that participants in the high-level construal condition rated the transgressions as more negative than participants in the low-level construal condition. These results were replicated in several follow-up experiments with different manipulations of construal level.

Eyal and colleagues explain these findings by suggesting that construal level operates independently of and prior to our intuitive emotional responses. High-level construals mask mitigating details while low-level construals draw them into focus. The difference in representation leads to a difference in moral appraisal. Further support for this explanation comes from Agerström and Björklund (2009), who found that high-level construal resulted in harsher appraisals of individuals who acted selfishly under conditions favoring altruistic behavior.

Gong and Medin (2012) were unable to replicate these findings. Using slightly different (though arguably more direct) construal-level priming techniques, they found that high-level construal resulted in less harsh appraisals low-level construal. Even in a direct replication of Eyal and colleagues’ Study 2, they still found a vitiating effect of high-level construal (for similar results see Lammers, 2012).

More recent research has supported this challenge. In replications with higher-power designs (1-β = 0.95) than the studies reported in Eyal et al. (2008) and Gong and Medin (2012), Žeželj and Jokić (2014) found results mostly in line with those of Gong and Medin. Most importantly, they found harsher evaluations for low-level construal when using direct manipulations of construal level (in agreement with Gong and Medin’s Study 1).

But why should low-level construal result in harsher evaluation of moral transgressions? Both Gong and Medin (2012) and Žeželj and Jokić (2014) suggest that focusing on contextual factors may render the transgression all the more vivid (or imageable). Thus, instead of attenuating the
severity of the act, low-level construal may actually enhance it, leading to a more powerful intuitive-emotional response.

One aspect of the intuitionist morality approach that has not been addressed in the research on CLT and morality so far is the notion of domain salience. No study has controlled for which moral domain was being violated or upheld. Indeed, one reason for the conflicting results may be that the domains represented in the vignettes were weighted differently by the different populations recruited for the different studies. These differences in domain salience might lead to differences in the strength of the construal-level effect, or even to a difference in evaluation strategy. Another factor not accounted for in the CLT morality literature is the possible effect of character outcomes. Many of the vignettes adopted in this literature frame the moral transgression in terms of prior mitigating factors (e.g., the family pet is killed accidentally prior to its being consumed). However, to our knowledge, only one of the vignettes used in these studies contained a description of what befalls the character after the transgression (this is the cheating vignette, in which a student cheats on a test and is rewarded with good grades; see Gong & Medin, 2012, Appendix A). As character outcomes constitute a kind of detail, and one standing temporally between the violation exposure and the judgment measurement, they may interact with low-level construal to influence the severity of the judgment.

**Present Study**

The present study addresses the shortcomings in the previous section by blending the methodologies of Gong & Medin (2012) with those of Tamborini et al. (2013). We combine a manipulation of construal level with the same narrative stimuli used in Tamborini et al. (2013). In so doing, we explore whether high- or low-level construal of the narrative content impacts the response of the intuitive moral system.

**Hypotheses**

Given the conflict outlined above, we restrict ourselves to non-directional hypotheses. Harsher moral appraisals under high-level construal will support Eyal et al. (2008) inter alia, who predict that mitigating details become available under low-level construal. We refer to this explanation as the mitigation principle. Harsher appraisals under low-level construal will support Gong and Medin (2012) inter alia, who predict that the graphic detail of low-level construal intensifies the negative emotional response triggered by the moral violation. We refer to this explanation as the intensification principle.

All prior studies on CLT and morality have returned an effect of construal level on moral judgment of events. Therefore, we predict that construal level will result in an aggregate difference in the negativity of moral appraisals, all else being equal. This prediction is formalized as H1 below.

**H1:** Moral evaluations for domain violators will differ between a low- and a high construal level at the moment of exposure.

Based on the findings of Tamborini et al. (2013), we also expect increased domain salience to result in harsher appraisals of moral transgressors (H2), though we expect this effect to interact with construal level in a way consistent with the outcome of H1.

**H2:** With increasing domain salience moral evaluations for domain violators will decrease. This relationship will be moderated by construal level at the moment of exposure.

Weber et al. (2008) found that moral transgressors who were perceived as more severely punished were judged more harshly. Thus, character outcomes may operate directly on both moral judgments and narrative appeal. Based on the logic of H2, this outcome-driven effect should further interact with domain salience and construal level. The higher moral evaluations associated with reward outcomes should diminish more sharply as domain salience increases (contextual factors should have less of an effect for people with strong intuitive reactions). Moral evaluations for punishment outcomes, on the other hand, should already be somewhat low for low-salience domains, and should converge with reward narrative as salience increases. As in H2, we expect construal level to moderate this relationship.

**H3:** Moral evaluations of domain violators will be lower/worse for punishment outcomes compared to reward outcomes in narratives. With increasing domain salience, moral evaluations will decrease/worsen more rapidly for reward outcomes than for punishment outcomes. This relationship will be moderated by construal level at the moment of exposure.

**Method**

The general paradigm is adapted from Tamborini et al. (2013). First, we assess participants’ baseline salience for each of the five intuitive domains using the Moral Foundations Questionnaire (MFQ31; Haidt et al., 2006). Then, we prime the participants for high-level or low-level construal by means of a hypernym-hyponym word categorization task (Fujita et al., 2006, Experiment 3; Gong & Medin, 2012, Study 4). Following the priming task, we present the participants with ten brief ‘film synopses’ in which the main character violates one of the five moral domains and is either punished or rewarded for that transgression. In the critical task, we asked participants to rate the characters’ morality.

**Participants**

217 undergraduates from a university on the west coast of the United States of America were recruited to participate in this experiment.

**Stimuli and Design**

Stimuli for the experiment include both priming materials and narrative materials. The priming stimuli consisted of
two sentential frames and a set of 40 common nouns to be categorized. In the low-level condition, participants were presented with a sentential frame designed to elicit a hyponym of the target word: An example of (a/an) WORD is __. For instance, if provided with cat, a participant might successfully respond tabby but not animal. In the high-level condition, participants saw a frame designed to elicit hypernyms of the targets: (A/An) WORD is an example of __. In this condition, a correct response to cat would be animal, but not tabby. Semantic categorization tasks of this kind have elsewhere been shown to effectively modulate construal level (Fujita et al., 2006). The 40 nouns to be categorized were extracted from the MRC Psycholinguistic Database (Wilson, 1988). All words were matched for concreteness and familiarity ratings as provided in the MRC annotation (concreteness: M = 593.55, sd = 29.02; familiarity: M = 583.83, sd = 37.21).

The narrative materials were taken directly from Tamborini et al. (2013). These materials comprise 20 narratives. Each narrative concerns a focal character that violates one of the five moral domains, such that each domain is violated in two different narratives (10 narrative skeletons total). Each of these narrative skeletons consists of three parts: a positive introduction to the character (one or two sentences), a description of the transgression (three or four sentences), and a description of the outcome (one sentence). Therefore, our narratives contain both mitigating and damming details regarding each domain violator. This is critical given that the different explanations invoked by the mitigation principle compared to the intensification principle ultimately turn on the availability of cues capable of mitigating or intensifying the offense. The first two parts for each narrative are identical across all conditions. The third part varies as a function of the outcome manipulation: in the ‘reward’ condition, the final sentence describes a positive outcome; in the ‘punishment’ condition, it describes a negative outcome. For a full discussion, see Tamborini et al. (2013).

We employ a 2 x 2 x 5 mixed-effect design. Our between-subjects variable is construal level; our within-subjects variables are outcome and domain. Participants were randomly assigned to one of four possible conditions based on a crossing of narrative block (ordering) and construal-level condition. Each narrative block contained ten narratives (two for each of the five domains). The blocks were counterbalanced across the outcome condition, such that participants in the two block conditions saw the same narratives with opposite (punishment vs. reward) endings. In the low-level and high-level construal conditions, participants completed the hyponym and hypernym word categorization tasks, respectively.

**Procedure**

All measures and stimuli were presented on a 17-in LCD display with 1366 X 768 screen resolution. The interface and data collection were implemented through OpenSesame 0.27.4 (Mathôt et al., 2012). As in the previous studies using these narratives, participants were told that they would be viewing a number of brief film synopses.

Prior to the main task, each participant completed the Moral Foundations Questionnaire (MFQ31; Haidt, Graham, & Hersh, 2006), a 31-item survey with two parts. In Part One, 15 factors involved in making moral judgments (e.g., “Whether or not someone was harmed”) are rated on a scale from 0 = “not at all relevant” to 5 = “extremely important”. This section also includes one catch question (“Whether or not someone believed in astrology”) designed to help in identifying disengaged participants. In Part Two, 15 statements regarding personal beliefs are rated from 0 = “strongly disagree” to 5 = “strongly agree”. Presentation of MFQ items was randomized within each part for each participant, though all participants completed Part One before Part Two.

In the main task, participants read each of the ten narratives described above. Each narrative was presented individually, followed by three questions adopted from Tamborini and colleagues’ domain violation questionnaire. The critical question elicited a moral evaluation of the focal character based on their actions (How moral were NAME’s actions in this movie plot?); the others (not evaluated here) targeted perceived ethicality and enjoyment of the narrative. Responses were collected using a 7-point Likert scale running from 1 = ‘extremely immoral’ to 7 = ‘extremely moral.’ The order of presentation of both the narratives and the domain violation questions was randomized for each participant. Responses and reaction times were collected. Only the former are considered here.

**Data Trimming**

Prior to running our data analysis, we omitted several problematic data points a priori grounds. Five participants were excluded from the study due to technical errors. Another eight participants were removed due to unreliable MFQ responses, as indicated by a response of 3 or higher to the ‘catch’ question. Such a response indicates low engagement with the task. In addition, we removed any responses with response latency less than 2000 ms.

**Results**

We fit a linear mixed effect models to predict participants’ moral evaluations of focal domain violators. Participant and narrative type (the narrative skeleton, two per domain) were included as random effects (intercepts only) to partial out the idiosyncrasies of individual participants and narratives. We also include a fixed effect of domain (harm, fairness, authority, purity, loyalty) as a control to ensure that our results generalize to the total intuitive-moral system. To test H1, we include a main effect of construal level. To test H2, we add a main effect of domain-salience (MFQ scores) and the interaction between construal level and domain salience. Finally, to test H3, we further add a main effect of outcome condition (punishment or reward), along with the three-way interaction between outcome condition, construal level and domain salience. Prior to the regression analysis, the raw
evaluation scores were transformed by adding one to avoid the presence of zeroes.

![Graph showing morality rating by domain salience in each experimental condition](image)

**Figure 1:** Interaction of construal level, narrative outcomes, and domain salience on morality ratings

**H1 and H2**

Our model did not uncover a significant main effect of construal level ($F(1, 1259.34) = 0.85, \text{n.s.}$). Neither did the two-way interaction between construal level and domain salience reach significance ($F(1, 1379.00) = 0.10, \text{n.s.}$). Unexpectedly, we also found no main effect of domain salience ($F(1, 1083.07) = 0.25, \text{n.s.}$). Therefore, we do not find support for a simple relationship between construal level and domain salience. It appears that construal level has interfered with general effect of domain salience observed in other studies.

**H3**

We did uncover a significant three-way interaction of construal level, domain salience and outcome condition ($\beta = \pm 0.05, F(1, 1345.58) = 4.55, p < 0.03$). These results are summarized in Figure 1.

High-level construals (left two panels) are insensitive to domain salience, as indicated by the essentially zero slope of both regression curves. For low-level construals (right two panels), the picture is more complex. On the one hand, domain violators that were punished for their transgressions were rated more negatively as domain salience increased. On the other hand, domain violators that were rewarded for their transgressions were given increasingly positive ratings as domain salience increased.

**Discussion and Conclusions**

The present experiment provides support for a moderating role of construal level in the formation of moral appraisals during exposure to media content. Whereas previous studies have demonstrated generally negative correlations between moral assessment of domain violators and the intuitive salience for the violated domain, the present study only replicated this pattern under a single condition: low-level construal of narratives with negative outcomes for domain violators. If the character receives a positive outcome under low-level construal, the trend is entirely reversed. Moreover, if the participant is operating under high-level construal with either positive or negative outcome, the effect of domain salience disappears altogether.

Our findings shed light on the current controversy between mitigation-based and intensification-based accounts of the effects of low-level vs. high-level construal. Both accounts emphasize the effect of details extracted through low-level construal, but differ with respect to the nature of this effect. The mitigation principle (e.g., Eyal et al., 2008) states that low-level construal increases moral ratings by focusing details that deflate the intensity of the emotional response. The intensification principle (e.g., Gong & Medin, 2012) states that low-level construal decreases moral ratings by focusing details that exacerbate the negativity of the emotional response. Our results speak in favor of both principles, though each appears to operate only under certain conditions.

First, consider the imperviousness of high-level construal to details within the narratives. These details include the character introductions (which included positive statements about the characters, casting them as upholders of other moral domains) and the outcomes they experienced. No matter how (un)important the domain being violated, these details were not capable of raising morality scores above floor performance. This fact is predicted by both the mitigation and the intensification accounts in that both assume a lack of conceptual articulation for high-level construal. However, the fact that high-level construal consistently produces lower ratings relative to low-level construal is not compatible with the intensification principle, which states that moral evaluations under low-level construal should sink well below – not approach – those of high-level construal. Instead, this relationship meshes with the mitigation principle; lack of access to relevant mitigating details leads to low morality judgments.

But why should high-level construal eliminate the effect of domain salience? To answer this question, we look to Raney’s extension to DT. Raney (2004) proposed that not all moral evaluations involve an intuitive moral response to the actual content of the stimulus. Rather, he suggests that we often rely on basic scripts or story exemplars to evaluate characters. These scripts arise as we generalize over prior experience with similar narratives. They allow us to rapidly assign moral roles and expectations to characters. Returning to the present study, the abstract representations generated by high-level construal could lead to more focused (i.e., low-competition) activation of archetypal scripts and exemplars through their similarity in form (conceptual-structural isometry). Support for this notion comes from the fact that similarity in representational structure has been shown to facilitate (analogical) co-mapping in other...
domains (e.g., Falkenheiner, Forbus, & Gentner, 1989). This enhanced connectivity between stimulus and schema could allow for rapid mapping between the domain violator and an abstract ‘villain’ role, resulting in lowered morality appraisals across the board.

Low-level construal yields a much more complicated pattern of responses. Punishment narratives produce a negative association between domain salience and morality ratings, while reward narratives produce a positive association. Thus, punishment narratives support the intensification principle, while reward narratives support the mitigation principle. Despite the apparent contradiction, both of these trends may be explained by a single mechanism within the MIME: the reciprocal link between exemplars and intuitive moral responses. To understand this point, we must deal with three facts. First, low-level construal is sensitive to domain of violation, indicating engagement with the intuitive moral system (unlike high-level construal). Second, as domain salience increases, so does the impact of the outcome effect, suggesting a ‘blind’ (i.e., non-monotonic) boost to the signal based on domain salience. Finally, the directions of the effects seem to reflect the quality of the outcome – punished characters are less moral than rewarded characters, even though both committed the same violation. Thus, we propose that the detailed and context-dependent representations of low-level construal activate the intuitive moral system, which introduces a salience-proportional boost to the signal as activation spreads into the exemplar network. This activation spreads relative to the content of the narrative, including the violation and the outcome. The more typical punishment narratives feed activation into a coherent set of compatible schemata dealing with the punishment of moral transgression. In turn, these schemata reinforce negative appraisals of the violator through the broad affective annotation of a common ‘villain’ role. For reward narratives, however, several incoherent and non-compatible schemata are simultaneously activated: the violation engages violation/punishment schemata like those described above, while the reward outcome connects to virtue/reward schemata. The advantage for the latter schemata may be a result of the relative recency of the outcome as compared to the violation. Such a recency effect could overshadow the competing negative push of the violation to create the overall positive interaction observed here.

The mechanisms sketched above have far-reaching implications for our understanding of construal level, moral appraisal, and response to media content. They raise many important questions related to the dynamics (i.e., flexibility) of the construal level system during extended exposure to morally relevant content and how the local effects reported here translate into long-term tuning of the moral system.

References