



## Gradual escalation: The role of continuous commitments in perceptions of guilt

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### HIGHLIGHTS

- ▶ Four studies investigate how gradual escalations affect the judgments of guilt made by observers.
- ▶ Making commitments to escalating behaviors led observers to later rate actors as less guilty.
- ▶ Inducing a categorical mindset counteracted the effect of commitment on perceptions of guilt.
- ▶ Continuous commitments explain why gradual escalations reduce the severity of moral judgments.

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### ABSTRACT

Many immoral acts are the result of gradually escalating behaviors. The present work focuses on observers of immoral acts and the role of continuous commitments in shaping their perceptions of another person's guilt. Across four studies investigating how gradual escalations affect moral judgments, participants read a scenario describing an instance of immoral behavior that gradually built in severity. In Study 1, female participants perceived a perpetrator as less guilty when his behavior gradually escalated to rape after explicitly committing to the appropriateness of his initial morally ambiguous behavior. The findings from Study 2 suggest that inducing a categorical mindset can counteract this reduction in perceptions of guilt. Study 3 illustrated the power of the categorical versus continuous mindset by examining how a categorical (versus a continuous mindset) impacts perceptions of guilt even in the absence of gradually escalating behavior. Finally, Study 4 extended the findings from the prior studies to a sample of both men and women and investigated the effect of the mindset manipulation on perceptions. Together, these studies demonstrate that the potency of gradual escalations to induce acquiescence to immoral behavior may inhere in their ability to create initial commitments to and continuous perceptions of morally ambiguous behavior.

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"The safest road to hell is the gradual one—the gentle slope, soft underfoot, without sudden turnings, without milestones, without signposts." C. S. Lewis

### Introduction

Many immoral acts begin with a series of minor negative events that gradually escalate. A psychopath may start by harming animals and then move onto humans (Ascione, 1993) or a business executive may start by misreporting profit earnings and soon find himself attempting to hide billion of dollars of debt (Grant, 2000). Similarly, a woman does not wake up overnight to an abusive husband, but rather, abuse develops gradually over time, perhaps starting with name-calling and a small shove and then building to a slap and so on (Evans, 1996).

These examples demonstrate the potency of gradual escalation to lead to large unethical acts. Minor harmful steps can escalate in wrongness

until actors have committed major infractions, as Milgram (1974) illustrates with the incremental shock procedures making individuals more likely to engage in minor behaviors that gradually escalate to overtly negative acts (Gilbert, 1981). Indeed, a number of researchers have even maintained that this gradual escalation may be to blame for much of the misconduct on the part of corporate executives (Gino & Bazerman, 2009; Moore & Loewenstein, 2004; Prentice, 2007; Schrand & Zechman, 2011) and that acts like acquaintance rape are more likely to be overlooked because they start off innocuously (Warshaw, 1988).

### From actors to observers

Observers may also be implicated in the immoral acts of others since they too may fall victim to gradual escalations in their evaluations of the potential wrongdoing of others. That is, the gradual way in which many unethical acts develop, ranging from corporate misconduct to arguments that explode into violence, may also account for the failures of auditors to report misconduct on the part of corporate executives (Corona & Randhawa, 2010) or the failures of bystanders to intervene when violence erupts. Therefore, while prior research has examined

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how gradual changes affect *actors*, in the present work, we focus on how gradual escalations affect outside *observers*.

Since tacit approval of immoral and unethical acts contributes to a climate where they are more likely to occur, we focus on understanding what it is about the gradual escalation of morally wrong behaviors that leads individuals to overlook the wrongdoing of others. Further, understanding what it is about gradual escalations that affect observers seemed particularly interesting because unlike actors who are motivated to maintain views of themselves as “morally adequate” (Steele, 1988) and therefore to reframe their behavior in ways consistent with these views, observers are unlikely to be driven by these same motives when judging the behavior of others and in particular the behavior of outgroup others.

We argue that gradual escalation entails two factors, initial commitments to and continuous perceptions of behavior that alter how observers perceive moral behavior and lead outside observers to be more likely to overlook the unethical behavior of others. First, because these gradually escalating acts start out with innocuous behaviors, individuals are more likely to express explicit agreement with or *commitment* to the acceptability of these behaviors and in so doing, set a precedent for future judgments before observers fully realize the momentum and the direction of the situation. Just as actors have been shown to escalate in response to behaviors they have committed to (Loewenstein, 1996; Staw, 1976; Staw & Ross, 1989), observers may also escalate approval to other people's behaviors of which they have previously approved. Similarly, many compliance techniques rely on creating a sense of commitment to induce future compliance. For example, Cialdini, Cacioppo, Bassett, and Miller (1978) argue that the low-ball technique leads individuals to agree to purchase goods at higher prices by inducing individuals to commit to buying the products at a low price and then gradually increasing the price. Similarly, research on the foot in the door effect illustrates that individuals are more likely to commit to engaging in a larger act (e.g., donating money) if they start off with a smaller act (signing a petition) and their behavior gradually escalates (Freedman & Fraser, 1966; see Burger, 1999 for review). We reason that when observers commit to the rightness of an actor's initial small acts—asking a girl out on a date—it increases the likelihood of later committing to the rightness of an actor's more significant acts—forcing the girl to engage in a sexual act. However, in the absence of such initial commitments, observers may be less bound to the moral rightness of the actor's later behaviors, and as a result, more likely to judge such behaviors as immoral or wrong. Thus, in our research we sought to heighten the impact of the initial commitments that we believe are implicit in gradual escalations of behavior by making them explicit.

Second, gradual escalation creates *continuous perceptions* of behavior such that each step on the path towards eventual wrongdoing is indistinguishable from the last step because each step is only a minor, incremental, increase beyond what had been already done. As research on change blindness indicates (Simons, 2000), perceivers often have difficulty seeing changes that occur incrementally compared to changes that occur more abruptly. Analogously, in the Milgram (1974) studies, since each shock was a mere 15-volts more than the prior shock, it is hard to determine a specific point when the teacher's behavior became “immoral.” According to the “induction mechanism” (Tenbrunsel & Messick, 2004), when evaluating the acceptability of an actor's current behavior, individuals consider the acceptability of the actor's prior behavior as well as how similar the present behavior is to the prior behavior. Since gradual escalation leads observers to view present behaviors as minor incremental increases beyond what an actor has already done, present behaviors are evaluated similarly to prior behaviors, attenuating perceptions of wrongdoing.

Consistent with this perspective, recent research has found that incremental changes in negative acts can lead perceivers—as well as actors—to view negative acts as more permissible (Gino & Bazerman, 2009). Individuals are more willing to condone others' potential cheating behavior if the unethical behavior develops gradually over

time, starting with small increments of overestimation (e.g., adding a few cents to their payout) and gradually building. By contrast, if the cheating behavior occurs abruptly, with large overestimations, then individuals are more likely to report the cheating (Gino & Bazerman, 2009). Further, when behavior gradually escalates, observers spend less time deciding whether to approve of behaviors and are less likely to complete word stems with words related to unethical behavior. Based on these findings, Gino and Bazerman (2009) suggest that “implicit biases” account for the effects of gradual escalations on moral judgments. Yet, to fully understand the impact of gradual escalation of immoral behavior requires an examination of the specific factors leading individuals to overlook the misconduct of others. That is, while prior research by Gino and Bazerman (2009) compared observers' responses to gradual escalating immoral behavior versus abrupt shifts to immoral behavior, in the present work, all studies (with the exception of Study 3) focus on instances of gradual escalation in which we varied the different factors—commitment and continuous perceptions—that we theorize account for the effectiveness of gradual escalations. In doing so, we sought to understand the conditions under which gradual escalations affect and do not affect observers' perceptions of behavior.

In focusing on commitment and continuous perceptions, we test two key hypotheses: 1) increasing observers' commitment to individual acts as they escalate should make outside observers less likely to hold actors accountable for their actions; and 2) when present behavior is perceived as categorically different than prior behavior, observers will be more willing to see actors as guilty when behavior becomes morally wrong. Across four studies, we assess whether manipulating these two factors can heighten or attenuate the effect of gradual escalation on perceptions of guilt in the contexts of acquaintance rape and a drunken brawl that ends in murder, two situations in which minor negative behaviors can gradually escalate to extreme wrongdoing (Warshaw, 1988).

More specifically, in Study 1, we investigate whether increased commitment can heighten the effect of gradual escalations. In Study 2, we focus on whether inducing a categorical mindset can attenuate the effect of gradual escalation. Study 3 shows the power of the categorical versus continuous mindset manipulation by examining how a categorical versus a continuous mindset impact perceptions of guilt even in the absence of gradually escalating behavior. Finally, in Study 4, we extend the findings in the prior studies to both male and female participants.

## Study 1

In Study 1, we examined how an observer's commitment to the acceptability of an individual's initial ambiguous acts would affect the observer's later judgments of that individual once the individual's behavior had escalated into a clearly immoral act, focusing on acquaintance rape. We chose to focus on acquaintance rape because such acts are characterized by gradual escalation, beginning, for example, with an innocent date, and progressing to an unwelcome criminal sexual act (Koss, 1988). We predicted that agreeing to the moral acceptability of earlier innocuous actions makes it more likely that individuals will condone future worse actions when the behavior escalates. In particular, if the initial commitments inherent in gradual escalations account for the power of gradual escalations to reduce the severity of moral judgments, then increasing the power of those commitments by making the commitments explicit should further depress the severity of moral judgments. Consistent with this manipulation, Kim and Sherman (2007) find that explicit expressions of choice lead to a greater sense of commitment. Accordingly, in Study 1, participants were asked to read an acquaintance rape scenario that gradually escalated while being given the opportunity to explicitly commit to the appropriateness of perpetrator's behavior or not. We then examined how all participants later viewed the perpetrator's culpability after the behavior had escalated. We also examined how commitment affected observers' feelings

toward the perpetrator. In particular, we thought that commitment, by leading participants to repeatedly and explicitly reflect on the perpetrator and his behavior, would lead individuals to feel more similar to and possibly to have more positive views of the perpetrator.

Finally, prior research has demonstrated dramatic sex differences in perceptions of date rapists with males identifying with perpetrators and blaming victims of rape more than females (Gerdes, Dammann, & Heilig, 1988; Grubb & Harrower, 2009; Johnson, Jackson, & Smith, 1989), so we also examined the effect of perceiver's gender in this study.

## Method

### Participants

One hundred eighteen undergraduate students, 45 men and 73 women, with a mean age of 19.1 years ( $SD = 1.10$ ), and consisting of 58 White Americans, 27 Asian Americans, 26 Latinos, 4 Black Americans, and 3 participants who identified as other participated in Study 1. Participants were recruited to participate in a study investigating the qualities that individuals look for in dating partners in exchange for partial fulfillment of course requirements and were randomly assigned to one of two experimental conditions: the commitment condition or the no commitment condition.

### Procedure

When participants arrived, the experimenter escorted them to individual computer cubicles where they completed the study. Participants were told that they would be reading a scenario and making judgments about the individuals in the scenario at the end. All participants read an acquaintance rape scenario told in the third person. The scenario began innocently with John asking his friend Sally on a date—"John finally decides to take his relationship with Sally to the next level, so he asks Sally on a date this Saturday. Sally agrees"—and steadily built in the degree to which John's behavior was inappropriate until the conclusion, when John rapes Sally—"John pushes Sally down on the couch. Sally says no, but John doesn't hear her, forcing himself on top of her anyway. Sally says no a few more times, and then eventually gives up, staring at the ceiling, waiting for it to be over." In this way, the scenario represented a gradual escalation of behavior, with John's behavior gradually worsening as the scenario progressed.

### Explicit commitment manipulation

The acquaintance rape scenario was divided into 11 chunks describing actions, each of which contained a few sentences of the scenario. The chunks were presented to participants individually, as 11 screen shots (see Appendix A for complete scenario). Individuals in the *explicit commitment condition* were asked to judge the appropriateness of John's behavior in each chunk of the scenario (on a 9-point scale anchored at 1 = *inappropriate* and 9 = *appropriate*) prior to moving on to the next chunk. In this way, participants in the explicit commitment condition were given the opportunity to explicitly commit to the appropriateness of the perpetrator's initial morally ambiguous behaviors and since the scenario starts innocently, all participants in this condition indicated at least some agreements with the appropriateness of the perpetrator's initial acts. Participants assigned to the *no commitment condition* simply read each chunk and clicked continue to move on to the next chunk without making any explicit judgments (see Fig. 1 for schematic of the design). Thus, participants in the commitment condition explicitly expressed their views on the appropriateness of the escalating actions whereas participants in the no commitment condition merely read the same actions. This operationalization is consistent with Kiesler and Sakumura's (1966) view of commitment as a "binding of the individual to behavioral acts" (p. 349) the degree of which may be increased by explicitness and repetition. Since participants in both conditions were likely making spontaneous judgments about the perpetrator as

the scenario developed, this manipulation offers a strong test of the commitment hypothesis.

### Perpetrator guilt scale

After reading the entire scenario, all participants completed a 10-item measure of the extent to which participants blamed John, the perpetrator, for the actions described in the scenario. This scale was adapted from prior work on individuals' perceptions of defendants in rape trials (Rempala & Geers, 2009). Participants made all ratings on a 7-point scale and sample items included, "How guilty was John for the events that occurred in the scenario" (anchored at 1 = *not at all guilty* and 7 = *extremely guilty*) and "How responsible is John for the actions in the scenario" (anchored at 1 = *not at all responsible* and 7 = *extremely responsible*). Ratings on each item were averaged ( $\alpha = 0.74$ ) to form an index of the extent to which participants held John causally responsible for the rape, with higher scores indicating greater guilt.

### Perceptions of similarity and positivity

To assess observers' perceptions of the perpetrators, all participants indicated how similar they felt to the perpetrator using a 7-point scale anchored from 1 = *not at all similar* to 7 = *extremely similar*. Finally, participants completed a 2-item scale that measured participants' positivity toward the perpetrator (Rempala & Geers, 2009). Participants made ratings on a 7-point scale and items included, "How likeable is John" (ranging from 1 = *not at all likable* to 7 = *extremely likable*) and "How good of a person is John" (from 1 = *bad person* to 7 = *good person*). These items ( $\alpha = 0.79$ ) were averaged to form an index of the extent to which participants felt positively about the perpetrator with higher scores on the scale indicating more positive feelings toward John, the perpetrator.

## Results

### Perpetrator guilt

To test the hypothesis that the gradual escalation of behavior would cause participants to be more accepting of the rapist's behavior, but only when participants had made prior commitments to the appropriateness of his initial behaviors, we conducted a 2 (gender of participants)  $\times$  2 (commitment condition: No commitment vs. Commitment) Univariate Analysis of Variance (ANOVA) on perceptions of perpetrator guilt. There were no significant main effects of either gender,  $F(1, 114) = 0.520, p = 0.472$ , or commitment condition,  $F(1, 114) = 0.767, p = 0.383$ . However, the analysis revealed a significant two-way interaction between gender of participants and commitment condition on perceived perpetrator guilt,  $F(1, 114) = 3.956, p = 0.049$  (see Fig. 2).

All simple effects tests were conducted using the overall error term in the denominator; these revealed that female participants in the commitment condition who had made commitments to the acceptability of the perpetrator's initial behaviors thought the perpetrator was significantly less guilty overall ( $M = 5.06, SE = 0.14$ ) than female participants who had made no such commitments ( $M = 5.52, SE = 0.14$ ),  $F(1, 114) = 5.395, p = 0.022$ . By contrast, for male participants, perceptions of perpetrator guilt for those who made commitments ( $M = 5.26, SE = 0.17$ ) did not differ from those who made no commitments ( $M = 5.09, SE = 0.18$ ),  $F(1, 114) = 0.50, p = 0.481$ . In sum, male participants were unaffected by the commitment manipulation, whereas female participants were strongly affected by the commitment manipulation, seeing the perpetrator as less guilty for the gradually escalating behaviors after making commitments. The females who did not make commitments held the perpetrator most accountable.

### Perpetrator similarity

We conducted a 2  $\times$  2 Univariate ANOVA to assess the effect of gender and commitment condition on participants' ratings of the extent to which they felt similar to the rapist. These analyses revealed both a

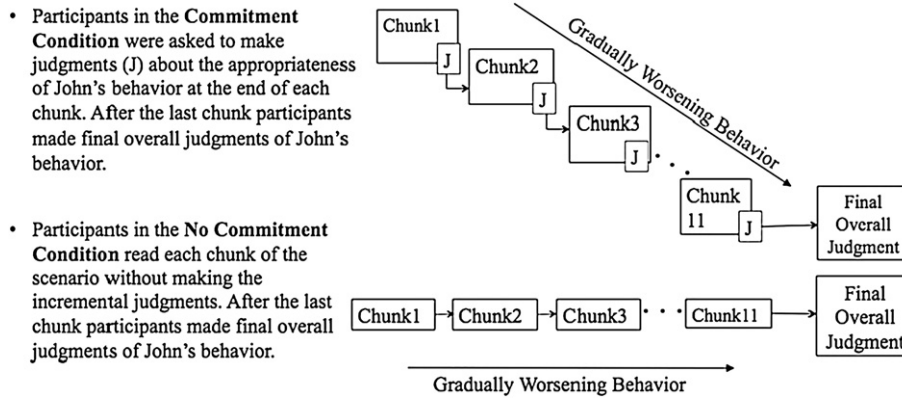


Fig. 1. The procedure for Study 1.

main effect of gender,  $F(1, 114) = 22.92, p < 0.001$ , and a main effect of commitment condition,  $F(1, 114) = 6.39, p = 0.013$ . Not surprisingly, male participants ( $M = 2.25, SE = 0.14$ ) indicated that they felt more similar to the (male) perpetrator than female participants ( $M = 1.39, SE = 0.11$ ). Moreover, participants in the commitment condition ( $M = 2.05, SE = 0.13$ ) reported feeling more similar to the perpetrator than participants in the no commitment condition ( $M = 1.59, SE = 0.13$ ), indicating that making explicit commitments to the acceptability of gradually worsening behavior lead participants to feel more similar to the perpetrator. These findings were not qualified by a significant gender by commitment interaction,  $F(1, 114) = 0.066, p = 0.797$ .

*Perpetrator positivity*

Finally, we examined participants' positivity toward the perpetrator following the escalation of negative behavior, by conducting a  $2 \times 2$  Univariate ANOVA. There was a significant main effect of gender on participants' positivity toward the perpetrator,  $F(1, 114) = 8.99, p = 0.003$  with female participants ( $M = 2.61, SE = 0.13$ ) rating the perpetrator less positively than male participants ( $M = 3.22, SE = 0.16$ ). This main effect was not qualified by a significant gender by

commitment condition interaction,  $F(1, 114) = 0.93, p = 0.337$  nor was there a significant main effect of commitment condition,  $F(1, 114) = 1.58, p = 0.212$ . Thus, regardless of the commitment condition participants were assigned to, male participants rated the perpetrator more positively than female participants.

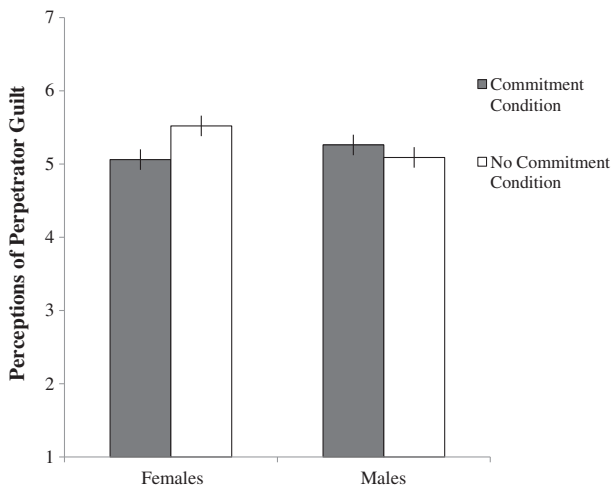
*Discussion*

Study 1 found that female participants who had not made explicit commitments to the acceptability of the rapist's initial ambiguous behaviors placed the most blame on the rapist for what occurred and overall expressed reduced feelings of similarity toward the rapist, while female participants who were given the opportunity to make explicit commitments rated the rapist as less guilty. These findings support the initial proposition that commitment is an important factor in determining the strength of gradual escalation to reduce the severity of moral judgments.

Male participants saw the rapist more positively and were unaffected by the commitment manipulation. There are a number of possible explanations for the effects of gender that we found. One explanation centers on the gendered nature of the criminal act of acquaintance rape in the study and how it may have created a situation where male participants were ingroup members with the perpetrator and female participants were ingroup members with the victim. Through processes rooted in Social Identity Theory (Tajfel, 1978; Tajfel & Turner, 1979), it is possible that the male participants identified more with the perpetrator and may have been making commitments even in the no-commitment condition (compared to the female participants) resulting in a null effect of the commitment manipulation. In Study 4, we use a bar fight scenario, in which a fight over school pride gradually escalates to murder, to examine whether this general effect replicates with men. However, first in Study 2 and Study 3, we focus solely on women, to examine the effect of inducing a categorical mindset on perceptions of guilt (Study 2) and the effect of our mindset manipulation in the absence of gradual escalating behavior (Study 3).

**Study 2**

In Study 2, we expand on the Study 1 findings demonstrating the importance of commitment on perceptions of gradually escalating negative behavior. Inherent in the very idea of gradual escalation is a continuous mind-set where behaviors are perceived in a continuous way, where each act builds on the prior, rather than as separate acts. We use the term "mind-set" in the way that Oyserman, Sorensen, Reber, and Chen (2009; p. 217) define it, "as cognitive schemas including content, procedures, and goals relevant to separating and decontextualizing or



Note: Error bars refer to the standard error.

Fig. 2. Perceived perpetrator guilt as a function of commitment condition (commitment vs. no commitment) and gender of participants (Study 1). Note: Error bars refer to the standard error.

connecting and contextualizing". We propose that a categorical mindset can change participants' perceptions of gradually escalating actions by reframing how they are viewing the acts. We operationalize the categorical mindset by having some participants make ratings on a categorical scale (vs. a continuous scale, as was used in Study 1). Since participants use questionnaire rating scales to help them interpret stimuli meaning (see Schwarz, 1996; Schwarz, 1999), we hypothesized that this manipulation would alter how participants thought about the behaviors they were reading. That is, making ratings on a categorical scale should shift participants' views of the escalating behavior from seeing the behavior in a continuous way to seeing each behavior as categorically distinct from prior behaviors.

More specifically, we predicted that we would replicate the findings from Study 1, with participants who were given the opportunity to make explicit commitments holding the perpetrator less accountable for his behavior when the behavior gradually escalated, compared to those who had not made explicit commitments, but only when those commitments were made on a continuous scale. By contrast, we predicted that when participants made commitments on a categorical scale—inducing a categorical mind-set—participants would hold the perpetrator just as accountable as participants who had not made explicit commitments. That is, if a continuous mindset is inherent in gradually escalating behaviors, as we contend, and this continuous mindset is necessary for gradual escalations to reduce perceptions of perpetrator guilt, then inducing a *categorical mindset* should lead to greater perceptions of perpetrator guilt.

The procedures for Study 2 were identical to those in Study 1 with three important differences. First, we were interested in whether a categorical mind-set could counter the effect of escalating behavior on perceptions, even when participants are asked to make commitments, so we added an additional categorical commitment condition. Thus, female participants were randomly assigned to one of three experimental conditions: the continuous commitment condition, the categorical commitment condition, or the no commitment condition.

Second, we focus on female participants as the effect of gradual escalation on perceptions of moral transgressors appeared only among female participants, and we sought to replicate this finding. Moreover, it is important and interesting that the female participants, who are ingroup members with the victim in the scenario, were susceptible to the manipulation and not, as might be expected, unwavering in their perceptions of guilt. This finding hints at the potency of gradual escalation to reduce the perceived culpability for moral transgressions even among those who may be the most motivated to see otherwise.

Finally, we were concerned that participants who committed to the appropriateness of early actions might have different assumed knowledge about the perpetrator than participants who did not. That is, by repeatedly reflecting on the perspective of the perpetrator, participants who made commitments might have felt as though they "knew" the perpetrator more compared to participants who did not. For this reason, in Study 2, we sought to equate participants' knowledge across the conditions by having all participants read biographical information regarding the perpetrator prior to the beginning of the scenario. In this way, we hoped that all participants, regardless of commitment condition, would begin the scenario by taking the perspective of the perpetrator.

## Method

### Participants

Eighty-two female undergraduate students with a mean age of 18.78 years ( $SD = 0.982$ ), and consisting of 38 White Americans, 22 Latinos, 14 Asian Americans, 2 Black Americans, and 6 participants who identified as other, were randomly assigned to one of three conditions: no commitment, continuous commitment, or categorical commitment. Like Study 1, participants were recruited to participate in a study investigating the qualities that individuals look for in a dating partner in exchange for partial fulfillment of a course requirement.

### Procedure

As in Study 1, participants were escorted to an individual computer cubicle where they completed the entire experiment. Participants read a scenario and made judgments about the individuals in the scenario at the end. To insure equivalent knowledge across conditions, all participants began the experiment by reading biographical information about the male character in the scenario, including his year in school and major. Next participants read the same acquaintance rape scenario from Study 1.

### Commitment manipulation

As in Study 1, the acquaintance rape scenario was divided into 11 actions each described in separate chunks that were presented to participants one at a time, as 11 screen shots. The *no commitment condition* was the same as in Study 1 with participants in this condition simply reading each chunk and clicking continue to move on to the next chunk without making any judgments. The *continuous commitment condition* was the same as the commitment condition from Study 1, with participants judging the appropriateness of John's behavior in each chunk of the scenario on a 9-point continuous scale anchored at 1 = *inappropriate* and 9 = *appropriate* prior to moving on to the next chunk. Finally, in the new *categorical commitment condition*, participants indicated the appropriateness of John's behavior in each chunk on a categorical scale as either *appropriate* or *inappropriate* using a binary measure before continuing on to the next chunk of the scenario.

### Perpetrator guilt scale

After reading the entire scenario, all participants completed the same dependent measures from Study 1, including a 10-item measure of the extent to which participants blame John, the perpetrator, for the actions described in the scenario. Participants made ratings on a 7-point scale and ratings on each item were averaged ( $\alpha = 0.66$ ) to form an index of the extent to which participants held John causally responsible for the rape, with higher scores indicated greater ascribed guilt.

### Perceptions of similarity and positivity

Participants again indicated how similar they felt to the perpetrator using a 7-point scale anchored from 1 = *not at all similar* to 7 = *extremely similar* and completed the same 2-item measure of participants' positivity toward the perpetrator from Study 1. These items ( $\alpha = 0.77$ ) were averaged to form an index of the extent to which participants felt positively about the perpetrator with higher scores on the scale indicating more positive feelings toward John, the perpetrator. Since we did not find any effect of commitment on participants' feelings of positivity toward the perpetrator in Study 1, we did not expect to find an effect of commitment in Study 2 either.

## Results

### Perpetrator guilt

In order to investigate whether inducing a categorical mind-set would increase participants' ratings of perpetrator guilt, we conducted a one-way ANOVA looking at differences in participants' guilt ratings by commitment condition. We found a significant effect of commitment on participants' ratings of guilt  $F(2, 79) = 3.92, p = 0.024$  (see Fig. 3). Simple effects tests showed that, as predicted, participants in the no commitment condition ( $M = 5.38, SE = 0.14$ ), and those in the categorical commitment condition ( $M = 5.28, SE = 0.14$ ), saw the perpetrator as more guilty than those in the continuous commitment condition ( $M = 4.85, SE = 0.14$ ),  $p = 0.01$  and  $p = 0.037$  respectively. Further, there was no difference in ratings of guilt between the no commitment condition and the categorical commitment condition,  $p = 0.614$ . In addition to replicating the findings from Study 1, these findings indicate that both the absence of commitment and the presence of categorical

commitments can lead observers to hold actors more accountable for their gradually escalating behavior.

#### Perpetrator similarity

In Study 1, we found a main effect of commitment condition on participants' feelings of similarity toward the perpetrator with those who had made commitments reporting feeling more similar toward the perpetrator. In Study 2, we conducted a one-way ANOVA, which showed that commitment had a marginal main effect on perceived similarity to the perpetrator  $F(2, 79) = 2.97, p = 0.057$ .

Simple effects tests revealed that only the no commitment condition ( $M = 1.18, SE = 0.09$ ) and the continuous commitment condition ( $M = 1.70, SE = 0.21$ ) significantly differed from each other,  $p = 0.017$ , with participants who had made continuous commitments reporting that they felt significantly more similar to the perpetrator than participants who had made no commitments, essentially replicating Study 1. The categorical commitment condition ( $M = 1.44, SE = 0.14$ ) did not differ from either of the other two conditions.

#### Perpetrator positivity

Recall, that we did not expect to find any effect of commitment on perpetrator positivity since we had not found an effect in Study 1. A one-way ANOVA revealed that as expected, commitment condition had no effect on participant's ratings of the extent to which they felt positive toward the perpetrator  $F(2, 79) = 0.054, p = 0.948$ . Participants in the continuous commitment condition ( $M = 2.70, SE = 0.17$ ) did not differ in their ratings from those in either the no commitment condition ( $M = 2.71, SE = 0.23$ ) or the categorical commitment condition ( $M = 2.80, SE = 0.24$ ) suggesting that the differences in perceived perpetrator guilt were not the result of how positively participants felt toward the perpetrator.

#### Discussion

Study 2 showed that when participants made commitments, but were in a categorical mindset, instead of a continuous mindset, they were more likely to view the perpetrator as guilty for his actions. Further, participants who did not make commitments to the acceptability of the perpetrators' actions were also more likely to perceive the perpetrator as guilty. We found no differences in participants' positivity toward the perpetrator and a marginal effect of commitment condition

on perceived similarity to the perpetrator, suggesting that continuous perceptions and commitment may be affecting participants views of culpability without influencing their views of how much they like the perpetrator.

Results from Study 2 demonstrate that seeing individual behaviors as categorically different than prior behaviors alters how observers are perceiving escalating behavior, resulting in individuals holding the perpetrator of immoral behaviors more accountable for his behavior. Further, by keeping knowledge about the perpetrator constant across conditions, Study 2 shows that it was not participants "knowing" the perpetrator more in the continuous condition that led to the reduction in perceptions of perpetrator guilt. Instead, Studies 1 and 2 indicate that continuous commitments allow gradual escalations to reduce the severity of moral judgments and that categorical perceptions and the absence of commitment can counteract this.

#### Study 3

In Study 3, we aimed to show that the induction of a categorical mindset was what was leading to the increased guilt ratings found in Study 2. To do so, we wanted to hold all other factors constant, so that our mindset manipulation was the only thing that varied across conditions. If inducing a continuous mindset, by having participants make ratings on a continuous scale, could reduce perceptions of perpetrator guilt even in the absence of gradual escalation, then this demonstrates the mindset manipulation is likely responsible for the differences in perceived perpetrator guilt found in Study 2. Thus, in Study 3, female participants read only the final chunk of the date rape scenario (in which the rape actually occurs) and then made ratings about the appropriateness of the perpetrator's behavior in the scenario either on a continuous scale or on a categorical scale.

#### Method

##### Participants

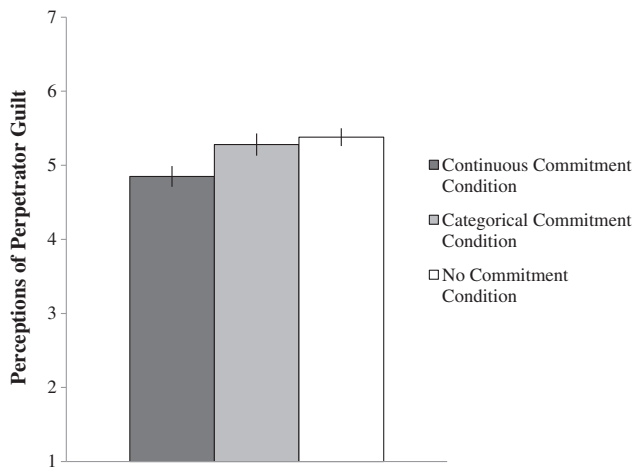
Twenty-nine female undergraduate students with a mean age of 18.97 years ( $SD = 1.61$ ), and consisting of 10 Asian Americans, 10 White Americans, 6 Latino Americans, and 3 participants who identified as other, were recruited to participate in a study for partial fulfillment of a course requirement. Participants were randomly assigned to one of two conditions: continuous mindset or categorical mindset. As in the prior studies, participants were informed that we were interested in the qualities that individuals look for in a dating partner.

##### Procedure

As in the previous studies, participants completed the entire experiment at individual computer cubicles and each participant read an acquaintance rape scenario and made judgments about the individuals in the scenario at the end. However, unlike the previous studies, participants read only a modified version of the final chunk of the scenario in which the rape occurred—"At Sally's house after a date, John and Sally start making out. John pushes Sally down on the couch. Sally says no, but John doesn't hear her, forcing himself on top of her anyway. Sally says no a few more times, then eventually gives up, staring at the ceiling, waiting for it to be over."

##### Mindset manipulation

As in Study 2, participant in the *continuous mindset condition* rated the appropriateness of the perpetrator's behavior in the single chunk of the scenario on a 9-point continuous scale anchored at 1 = *inappropriate* and 9 = *appropriate*. Participants in the *categorical mindset condition*, rated the appropriateness of the perpetrator's behavior in the chunk on a categorical scale as either *appropriate* or *inappropriate* using a binary measure.



Note: Error bars refer to the standard error.

Fig. 3. Perceived perpetrator guilt as a function of commitment condition: continuous commitment vs. categorical commitment vs. no commitment (Study). Note: Error bars refer to the standard error.

### Perpetrator guilt scale

After making the appropriateness rating, all participants completed a single-item measure of the extent to which participants blame John, the perpetrator, for the actions described in the scenario: “How guilty was John for the events that occurred in the scenario?” Participants made the rating on a 7-point scale with higher scores indicating greater ascribed guilt.

### Results

In order to test whether inducing a categorical versus a continuous mindset leads to greater perceptions of guilt, we conducted a one-way ANOVA looking at differences in participants' guilt ratings by mindset condition. Consistent with our hypotheses and our findings in Study 2, we found a significant effect of the mindset manipulation on participants' ratings of guilt,  $F(1, 27) = 4.72, p = 0.039$  (see Fig. 4). Participants who were asked to rate the perpetrator on a categorical scale, inducing a categorical mindset, later viewed the perpetrator as significantly more guilty ( $M = 5.93, SE = 0.32$ ) than participants in who were asked to rate the perpetrator on a continuous scale ( $M = 4.53, SE = 0.54$ ).

### Discussion

In Study 3 we found that our mindset manipulation did have a significant effect on participant's ratings of the guilt of the perpetrator. Even in the absence of a gradual escalation, those who made ratings on a categorical scale were later more likely to hold the perpetrator accountable compared to those who made ratings on a continuous scale. These results demonstrate the power of our mindset manipulation to alter how individuals perceive behaviors.

### Study 4

The major limitation of Studies 1–3 was that the gendered nature of the moral infraction restricted the generalizability of the findings to only females. As such, in Study 4, we sought to extend our findings to both men and women by using a less gendered moral infraction, murder. Thus, in Study 4, male and female participants read a scenario describing a bar fight that gradually escalated from a verbal altercation

to murder and then made ratings about the individuals in the scenario, which was based on actual events that took place outside a bar in College Station, Texas (Leahy, 2007).

To avoid the gender effects found in Study 1, we wanted to ensure that both male and female participants were likely to identify with the victim despite the victim being male and the fight occurring in a bar—both things that should ostensibly resonate more with male students—so the victim was a student at the participants' own university and the perpetrator was a member of a nearby rival school. Further, the fight centers around school pride, something that both male and female students are likely to share.

Additionally, in the prior studies we inferred that the mindset manipulation induced a categorical vs. continuous mindset from the perceptions of guilt of the target. In Study 4, we sought to test whether our mindset manipulation was actually inducing a categorical or continuous mindset among participants by examining differences in participants' perceptions in a domain completely distinct from the morality domain. To investigate this, we asked participants to complete a separate task looking at color perception. In particular, we thought that a categorical mindset should lead participants to view more distinct colors in a gradient of colors, while participants in a continuous mindset should see two colors as more similar.

### Method

#### Participants

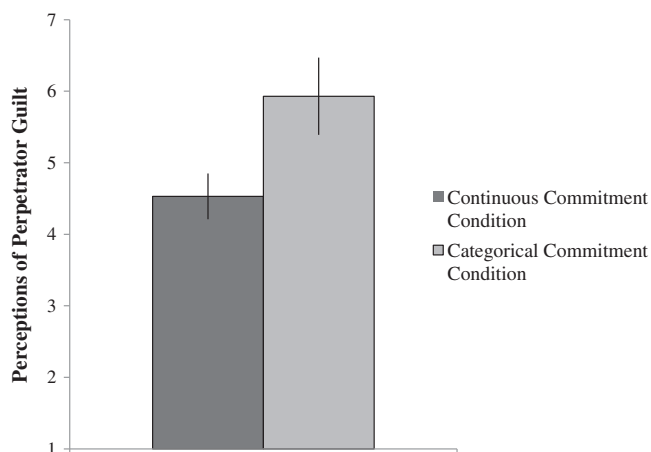
Eighty-two undergraduate students, 45 men and 37 women, with a mean age of 19.08 years ( $SD = 1.61$ ), and consisting of 35 White Americans, 20 Latino Americans, 19 Asian Americans, and 8 participants who identified as other, were randomly assigned, as in Study 2, to one of three conditions: no commitment, continuous commitment, or categorical commitment. Participants were recruited to participate in a study in which we were interested perceptions of campus life and student behaviors in exchange for partial fulfillment of a course requirement.

#### Procedure

As in all prior studies, participants completed the entire study at an individual computer cubicle. Participants were informed that they would be reading a scenario and making judgments about the individuals in the scenario at the end. All participants read a bar fight scenario told in the third person. The scenario began with Gary, a junior at the participant's university, going to a bar in a neighboring city to celebrate a recent birthday. Once there, Gary gets into a verbal altercation with Brad, a student from a rival university. The fight escalates from verbal insults—“According to police reports, Gary was annoyed by the noise Brad and his teammates were making, so Gary approached the group and began hurling insults”—to physical assault to ultimately Brad fatally stabbing Gary—“Gary, tired from the brawl, tried to walk away. According to police records, as he did, Brad pulled out a knife and stabbed Gary twice in the side.” In this way, as in the acquaintance rape scenario, this scenario represented a gradual escalation of behavior, with Brad's behavior gradually worsening as the scenario progressed.

#### Commitment manipulation

As in previous studies, the bar fight scenario was divided into 8 actions each described in separate chunks that were presented to participants one at a time, as 8 screen shots (see Appendix B for the full scenario). Participants in the *no commitment condition* simply read each chunk and clicked continue to move on to the next chunk without making any judgments. Those in the *continuous commitment condition* were asked to judge the appropriateness of the perpetrator's, i.e. Brad's, behavior in each chunk of the scenario on a 9-point continuous scale anchored at 1 = *inappropriate* and 9 = *appropriate* prior to moving on to the next chunk. Finally, participants in the *categorical commitment*



Note: Error bars refer to the standard error.

Fig. 4. Perceived perpetrator guilt as a function of commitment condition: continuous commitment vs. categorical commitment (Study 3). Note: Error bars refer to the standard error.

condition were asked to judge the appropriateness of Brad's behavior in each chunk on a categorical scale as either *appropriate* or *inappropriate* using a binary measure before continuing on to the next chunk of the scenario.

#### Perpetrator guilt scale

After reading the entire scenario, all participants completed the same single-item measure of the extent to which participants blamed the perpetrator for the actions described in the scenario as in Study 3. Participants made ratings on a 7-point scale with higher scores indicating greater ascribed guilt.

#### Distinct color task

After reading the bar fight scenario, participants were shown a color gradient that started with red and blended from orange all the way to purple. Participants were asked to click on the image to indicate every distinct color they saw. The survey software recorded the total number of clicks made by the participant. Next participants were prompted to self-report the number of distinct colors they saw in the image of the color gradient. These two measures were highly correlated ( $r = 0.57, p < 0.001$ ), so we averaged across the two to derive a measure of the extent to which participants were seeing distinct colors. We predicted that participants, who had been induced into a categorical mindset via categorical commitments, should see more distinct colors compared to the no commitment condition (which served as a control). Since the colors were already presented as continuous, we did not have any strong predictions for how a continuous mindset manipulation would affect participants' views of the color gradient (see Appendix C).

#### Color similarity task

Next participants were shown two similar color swatches and were asked to indicate how similar they perceived the colors to be on a 6-point scale anchored at 1 = *extremely dissimilar* and 6 = *extremely similar*. Participants did this for five different color swatch sets. Participant similarity ratings across all five sets ( $\alpha = 0.80$ ) were averaged to form a measure of the extent to which participants perceived the colors as similar. We predicted that participants, who had been induced into a continuous mindset via continuous commitments, should see the colors as more similar compared to the no commitment condition (which served as a control). Since the colors were already presented to participants as categorically different colors, separate color swatches, we did not have any strong predictions about how a categorical mindset manipulation would affect participants' perceptions of the similarity of the two colors (see Appendix D).

Thus, we predicted across the two measures that a categorical mindset should lead participants to see colors that are presented as continuous as more distinct, while a continuous mindset should lead participants to view colors that are presented as distinct categories as more similar.

## Results

#### Perpetrator guilt

We conducted a  $2 \times 3$  Univariate ANOVA to assess the impact of gender and commitment condition on participants' ratings of perpetrator guilt. We included gender as a factor because we wanted to examine whether the results differed by gender. They did not. There was no significant main effect of gender on participants' views of the perpetrator's guilt,  $F(1, 76) = 1.67, p = 0.176$ . Male participants' ratings of perpetrator guilt ( $M = 5.08, SE = 0.16$ ) were not significantly different from female participants' ratings of perpetrator guilt ( $M = 4.76, SE = 0.17$ ). There was however, a significant main effect of commitment condition on participants' ratings of perpetrator guilt,  $F(2, 76) = 3.29, p = 0.042$

(see Fig. 5), and this main effect of commitment condition was not qualified by an interaction with participant gender,  $F(2, 76) = 0.11, p = 0.898$ .

Simple effects tests revealed that only the continuous commitment condition ( $M = 4.58, SE = 0.21$ ) and the categorical commitment conditions ( $M = 5.32, SE = 0.20$ ) significantly differed from each other,  $p = 0.014$ , with participants who had made categorical commitments reporting that they perceived the perpetrator as significantly more guilty than participants who had made continuous commitment. The guilt ratings in the no commitment condition ( $M = 4.88, SE = 0.20$ ) fell between the other two conditions as they did not differ from either the categorical commitment condition,  $p = 0.130$ , or the continuous commitment condition,  $p = 0.303$ .

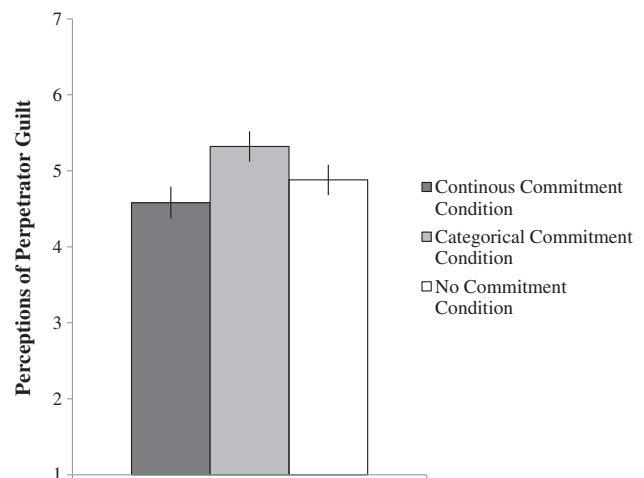
#### Distinct colors

In order to assess the effect of the categorical mindset manipulation on participants' perceptions of distinct colors, we conducted a one-way ANOVA looking at differences in participants' reports of distinct colors by condition and found a non-significant trend towards a main effect,  $F(2, 76) = 2.21, p = 0.116$ . Although the omnibus test was not significant, the predicted planned comparisons revealed that participants who were induced into a categorical mindset saw significantly more distinct colors ( $M = 14.71, SE = 1.95$ ) than those in the no commitment (control) condition ( $M = 10.76, SE = 0.86$ ),  $p = 0.044$ , seeing on average an additional four more colors. The continuous mindset condition ( $M = 13.54, SE = 1.09$ ) fell between the other two conditions and did not differ from either the categorical mindset condition,  $p = 0.560$ , or the no commitment (control) condition,  $p = 0.166$ .

Participants who had been induced to see things in a more categorical (i.e., a black and white) way saw more distinct colors in a color gradient. This finding suggests that just as the categorical mindset induction led observers to be more likely to separate a perpetrator's gradually escalating behavior into distinct acts, the same categorical mindset induction led participants to separate a continuous color gradient into distinct colors.

#### Color similarity

Finally, in order to investigate the effect of the continuous mindset manipulation on participants' perceptions of color similarity, we



Note: Error bars refer to the standard error.

Fig. 5. Perceived perpetrator guilt as a function of commitment condition: continuous commitment vs. categorical commitment vs. no commitment (Study 4). Note: Error bars refer to the standard error.



conducted a one-way ANOVA looking at the differences in participants' perceptions of the similarity of two colors by condition. We did not find a main effect of condition on perceptions of color similarity,  $F(2, 76) = 1.775$ ,  $p = 0.176$ ; however, as predicted, planned contrasts revealed that participants who were induced into a continuous mindset saw colors as marginally more similar ( $M = 4.21$ ,  $SE = 0.17$ ) than those in the no commitment (control) condition ( $M = 3.83$ ,  $SE = 0.13$ ),  $p = 0.067$ . The categorical mindset condition ( $M = 4.06$ ,  $SE = 0.13$ ) fell between the other two conditions and did not differ from either the continuous mindset condition,  $p = 0.481$ , or the no commitment (control) condition,  $p = 0.243$ .

Participants who had been induced to see things in a more continuous (i.e., shades of grey) way saw two distinct colors as more similar. This finding suggests that, as we contend, a continuous mindset is likely to lead observers to see a perpetrator's later immoral behavior as more similar to the perpetrator's prior morally acceptable behaviors, the same continuous mindset led participants to see distinct colors as more similar.

### Discussion

In Study 4, we found that gradual escalations have the potential to affect both male and female observers, but the type of moral infraction and the context in which the wrongdoing occurs matters. That is, the previous findings of the effects of heightened commitment and a categorical mindset on perceptions of an individuals' guilt for actions replicate in a sample of men and women, with no moderation by sex. The contexts of the transgression, as well as the groups to which the parties involved belong are clearly relevant. If the roles in the bar fight were reversed and the victim in the bar fight had been from a rival school and the perpetrator from participants' own school, it is likely, as in Study 1, that there would have been no effect of commitment. Future work should be directed at investigating how group membership interacts with commitment and continuous perceptions to affect perceptions of guilt when behavior escalates.

These results also demonstrate that our mindset manipulation did have the effects on perception that we predicted even in a context outside the domain in which they were manipulated. That is, our reframing of how participants were thinking about the individual acts leading up to the fatal fight not only affected participants' later perceptions of the guilt of the perpetrator, but also affected how participants were perceiving other stimuli, colors. Although these results were not very strong, it is important to keep in mind that they occurred after the primary dependent variables, so may have been contaminated by the judgments of guilt. They are quite supportive of our contention, and along with the results of Study 3 demonstrate the power that these different mindsets can have in altering how individuals perceive the worlds around them. Whether individuals see something as black or white versus shades of grey could impact their later moral judgments.

### General discussion

Gradual escalations of behavior can alter how individuals perceive the problematic behavior of others, reducing the severity of moral judgments and leading individuals to hold others less accountable for their actions. The findings from these studies advance theoretical understanding by demonstrating that the potency of gradual escalations to reduce perceptions of guilt for immoral behavior may inhere in their ability to create continuous perceptions of and initial commitments to morally ambiguous behavior.

Across two different moral infractions, acquaintance rape and a fight that escalates to murder, we find that increasing the degree of observers' commitments to initial actions, leads observers to downplay the guilt of moral transgressors when the behavior escalates to

a clearly wrong act, rape or murder. However, inducing a categorical mindset can counteract the effect of commitment on gradual escalation. Since, enhancing these commitments increases the power of gradual escalations, while inducing a categorical as opposed to a continuous mindset reduces the power of gradual escalations, these results offer evidence of two factors that are necessary for gradual escalations to reduce the severity of perceptions of moral transgressions: initial commitment and a continuous mindset. Additionally, the present work suggests individuals' subjective construal of behavior, and in particular whether they think of behavior as either continuous versus categorical, can be extremely powerful. Adopting a categorical, as opposed to a continuous, mindset drastically alters interpretations of events and affects adjudication of blame even in the absence of gradually escalating behavior and changes how they see the world even beyond their perceptions of moral transgressions. Thus, while many individuals advocate for the more nuanced "shades of gray" view of behavior, the present work highlights one potential advantage of "black or white" thinking, in that a more categorical view of behavior could prevent individuals from being influenced by gradually escalating behaviors.

Our work joins other recent advances on the subtle and sometimes invisible forces that shape moral judgments. Recent work suggests that despite individuals' beliefs to the contrary, morality may be guided more by intuitions (Haidt, 2001), current emotional states (Haidt, 2003; see also Monin, Pizarro, & Beer, 2007; Pizarro, Inbar, & Helion, 2011), and motivations to protect self-image (Monin & Jordan, 2009), than reason. For example, Wheatley and Haidt (2005) find that individuals who were hypnotically induced to feel disgust judge moral transgressions to be more severe than those who were not induced to feel disgust. Adding to this growing literature, our work shows how subtlety in framing how the questions are asked can dramatically alter the moral judgments that result from those questions.

### Implications

The present work is the first to investigate ways of reducing the effect of gradual escalation, can lead perceivers to be more accepting of the immoral behavior of others (see also, Gino & Bazerman, 2009). The results of the present studies suggest specific ways to increase or decrease the perceived accountability of offenders whose actions are presented gradually, findings with real world implications. Take for example, the 2011 murder of an athletic apparel store employee by her female coworker (Noble, 2011). The incident allegedly started just after closing with a verbal altercation over accusations of stolen merchandise and gradually escalated to a brutal murder lasting at least twenty minutes. During this time, two employees at the adjacent computing store were also closing when they overheard the argument. The shouting gradually changed from pleas of: "Talk to me. What's going on?" to screaming and yelling and sometime later to: "God help me. Please help me." But help never came, as the two employees at the neighboring store returned to their work (Johnson, 2011). Our findings suggest that the gradual escalation of the actions leading up to the murder, such as a common argument among co-workers, may have made it less likely that the observers would perceive the act as wrong and thus intervene (cf. Latane & Darley, 1970; see also Manning, Levine, & Collins, 2007).

Further, these findings have important implications in the legal domain. For example, if jurors are presented with gradually escalating descriptions of behaviors and are led to commit to the acceptability of a defendant's initial actions, then, our results suggest that they may be less likely to perceive the defendant as guilty. Indeed, during the course of the trial for the woman accused of murdering her coworker at the athletic apparel store, defense attorneys attempted to make these arguments, maintaining that the murder was the result of a gradually escalating "back-and-forth fight" and that as a

result, the killing was not “deliberate” (Morse & Rosenwald, 2011). The attorneys did so in an attempt to persuade jurors that the crime was somehow less wrong. However, if in presenting the case, lawyers are able to make a defendant's individual acts categorically distinct from each other, as the prosecutors in this case were able to do, they can disrupt the effect of gradual escalation, leading jurors to be more likely to hold the defendant accountable than they otherwise would have been.

By focusing on outside observers rather than actors, the present work has the potential to shed light on how cultural norms develop that tacitly approve immoral behaviors, like acquaintance rapes, or potentially, lapses in business ethics. That is, outside observers who overlook the immoral behavior of others, as a result of the gradual development of that behavior, may contribute to the likelihood of the act's occurrence because their failure to hold the actors accountable could foster an atmosphere of tacit approval (Prentice, 2007). Understanding how gradual escalations affect observers is significant because when actors are incapable of distinguishing right from wrong, it is society's responsibility to do so—to maintain norms, laws, and order.

Individuals are presented with numerous instances of gradually escalating behavior throughout their lifetime and it is a complex process to adjudicate guilt in these situations. The present research contributes to an understanding of specific factors—commitment and continuous perceptions—that make gradual escalations impactful to outside observers in their judgment of potentially immoral and unethical behavior.

#### Appendix A. Acquaintance rape scenario (Studies 1 and 2)

1. John and Sally go to the same university and have known each other for a year now. They have always been friends, but John would like to be something more.
2. John finally decides to take his relationship with Sally to the next level, so he asks Sally on a date this Saturday. Sally agrees.
3. Saturday rolls around and John takes Sally to dinner at an expensive restaurant. John and Sally talk throughout dinner about their mutual love of sports. John asks Sally if she would like some more wine, and although Sally doesn't often drink, she agrees.
4. After dinner, John takes Sally to a bar, where he continues to buy Sally drinks, but he chooses to stay sober enough to drive the two of them home. Sally is really having a good time and is starting to think of John as something more than a friend.
5. Sally is getting a little tipsy, but is really into John so she asks him to dance. As they dance, Sally gets a bit flirty due to the alcohol. During a slow song, John leans in and kisses her.
6. Sally pulls away and realizing she is drunk, asks John to take her home. John agrees. John grabs Sally's hand and holds her close throughout the walk to the car.
7. When they arrive at Sally's house, John asks Sally if he can walk her to her door to make sure she gets in okay. Sally says sure and even invites him in.
8. Once inside, John leads Sally to the couch and sits her down. He asks about her roommate and Sally responds that she is staying at a friend's house for the night. Hearing that, John kisses Sally and the two begin making out.
9. After a couple minutes, Sally stops John and tells him that although she likes him, she is still a virgin and would like to stay that way, at least for now. John says that's fine and continues kissing her.
10. Sally starts feeling tired and tells John that she thinks she should go to bed. John responds, "I like you and if you like me too, you should show me that you do". Sally, feeling a little guilty, continues kissing John.

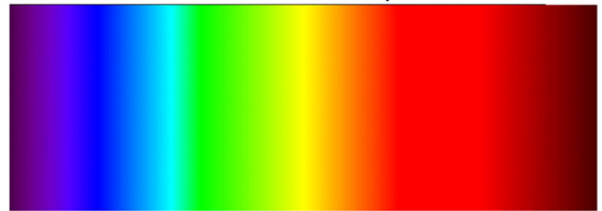
11. John pushes Sally down on the couch. Sally says no, but John doesn't hear her, forcing himself on top of her anyway. Sally says no a few more times, then eventually gives up, staring at the ceiling, waiting for it to be over.

#### Appendix B. Bar fight scenario (Study 4)

1. Gary, a junior at the University of California at Santa Barbara, drove down to Los Angeles with some friends to celebrate his twenty-first birthday. Witnesses say that when Gary arrived, the crowd at Whiskey Blue, a bar near UCLA in the Westwood area of LA, was pretty rowdy with Brad, a UCLA football player, and teammates celebrating a recent victory.
2. According to police reports, Gary was annoyed by the noise Brad and his teammates were making, so Gary approached the group and began hurling insults. Brad asked Gary to go back to his friends and then Brad turned back to the bar.
3. Gary persisted, insulting UCLA, Brad's team, and his intelligence. Brad turned to Gary, pushed him with both hands and said, "Dude, you go to UCSB, get the hell away from me."
4. Gary pushed back. Brad threw a punch that missed and then connected with a punch to Gary's face. After a few more punches, Brad turned back to face the bar and Gary continued to hit him in the back of the head, a witness said.
5. Gary, feeling he had proved his point, started to walk away, but Brad followed him. Gary then pushed Brad, who in turn punched Gary in the face, the police documents state. The two continued fighting. According to witnesses, Brad dodged Gary's punches and struck Gary while he was on the ground.
6. One of the witnesses pulled Brad away and the bartender's asked everybody to leave. Witnesses told police that outside of the bar, Gary approached Brad to apologize for starting the fight, but Brad wouldn't hear it and the two began to fight again in the street.
7. Gary, tired from the brawl, tried to walk away. According to police record, as he did, Brad pulled out a knife and stabbed Gary twice in the side.
8. Hearing the commotion, Gary's friends rushed out of the bar to find their friend bleeding on the ground and Brad standing over him. Brad dropped the knife and fled the scene. Gary was rushed to the hospital and pronounced dead on arrival.

#### Appendix C. Distinct color task











Using the image below, please click the area to identify every distinct color you see. For example, if you see two colors, you would click once on each color, so a total of two clicks. Please click the arrow to continue once you are done.



How many different colors do you see in the image above



## Appendix D. Color similarity task

		
		
<p>How alike are the two colors above?</p> <input type="radio"/> Extremely Dissimilar <input type="radio"/> Very Dissimilar <input type="radio"/> Slightly Dissimilar <input type="radio"/> Slightly Similar <input type="radio"/> Very Similar <input type="radio"/> Extremely Similar	<p>How alike are the two colors above?</p> <input type="radio"/> Extremely Dissimilar <input type="radio"/> Very Dissimilar <input type="radio"/> Slightly Dissimilar <input type="radio"/> Slightly Similar <input type="radio"/> Very Similar <input type="radio"/> Extremely Similar	<p>How alike are the two colors above?</p> <input type="radio"/> Extremely Dissimilar <input type="radio"/> Very Dissimilar <input type="radio"/> Slightly Dissimilar <input type="radio"/> Slightly Similar <input type="radio"/> Very Similar <input type="radio"/> Extremely Similar
		
		
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