

Emotions Shape Decisions through Construal Level: The Case of Guilt and Shame

DAHEE HAN
ADAM DUHACHEK
NIDHI AGRAWAL

Four experiments show that emotions systematically influence judgments and persuasion by altering construal levels. Guilt-laden consumers, relative to those who were shame-laden, adopted lower levels of construal. In subsequent unrelated judgments, guilt increased reliance on feasibility over desirability attributes and emphasized secondary rather than primary features. Shame led to the opposite pattern. Guilt's tendency to draw behavior-specific appraisals activates local appraisal tendencies and endows lower construal levels, whereas shame's tendency to implicate the entire self activates global appraisal tendencies and endows consumers with higher construal levels. As a boundary condition to the core effect, the results showed that the differences between guilt and shame only held when the emotions arose from actions rather than from inaction situations. These findings provide insight into when and why guilt and shame have different effects on subsequent decisions.

Consumers frequently experience guilt or shame in daily life, stemming from engaging in unhealthy consumption behavior such as binge drinking or overeating. Since these two emotions are endemic to many harmful consumption behaviors, marketers and public policy makers frequently use these two emotions in communications to enhance persuasion.

DaHee Han (dahee.han@mcgill.ca) is an assistant professor of marketing, Marketing Department, Desautels Faculty of Management, McGill University, 1001 Sherbrooke Street West, Montreal, Quebec, H3A 1G5, Canada. Adam Duhachek (aduhache@indiana.edu) is the Nestlé-Hustad Professor of Marketing and associate professor at the Kelley School of Business, Indiana University, 1309 E. 10th Street, Bloomington, IN 47405. Nidhi Agrawal (nidhia@uw.edu) is the Michael G. Foster Professor of Marketing and International Business at the Foster School of Business, University of Washington, Box 353226, Seattle, WA 98195. This article is based on part of the first author's dissertation. She appreciates the valuable comments from her dissertation committee members: Scott MacKenzie, Ashok Lalwani, and Edward Hirt. The authors acknowledge the helpful input of the editor, the associate editor, and the three reviewers. In addition, the authors thank participants in seminars at Indiana University and McGill University. Correspondence should be addressed to DaHee Han (dahee.han@mcgill.ca).

Mary Frances Luce served as editor and Baba Shiv served as associate editor for this article.

Electronically published September 5, 2014

For example, anti-overeating ad messages frequently invoke guilt ("I feel guilty when I overeat") or shame ("Over Eating Disorder—Letting Go of the Shame of Overeating") to help persuade consumers to engage in healthier behavior (see app. A). Given their prevalence in consumer experience and marketing communications, it is critical to understand how these discrete emotions affect how consumers process information and make subsequent decisions. This is especially important because most marketers treat guilt and shame as interchangeable emotions, although we theorize that each activates a distinct psychological mind-set. Armed with this understanding of how each emotion works, we can better structure messaging and suggest actions or products after exposure to guilt or shame experiences that facilitate health-promoting consumer judgments and behavior.

Guilt and shame do share many similarities (e.g., negative valence, self-conscious emotions), but prior research in the psychology domain has distinguished these two emotions (Tangney and Dearing 2002) and begun to document the distinct effects of guilt and shame on behavior. For example, guilt relative to shame results in a decrease in problematic alcohol consumption (Dearing, Stuewig, and Tangney 2005) and constructive interpersonal relationships (Leith and Baumeister 1998; Tangney et al. 1996). Building on these findings, researchers have recently demonstrated the distinct effects of these two emotions on defensive processing (Agrawal

000

and Duhachek 2010) and coping processes and persuasion (Duhachek, Agrawal, and Han 2012). However, there is little attention on how these two discrete emotions differentially influence subsequent judgments and decision making in general. To fill this gap, the current research investigates how guilt and shame result in the activation of unique appraisal tendencies and construal levels, which in turn influences subsequent judgments and decision making differentially by bringing together the literatures on emotions (Han, Lerner, and Keltner 2007; Tangney and Dearing 2002) and construal level theory (Trope and Liberman 2003, 2010).

Past research on discrete emotions has demonstrated that specific appraisal tendencies elicited by discrete emotions influence subsequent decisions (Agrawal, Han, and Duhachek 2013; Raghunathan and Pham 1999). Agrawal et al. (2013) show that driven by distinct agency appraisal tendencies, angry consumers hold onto their prior preferences and are less persuaded by new information, whereas shameful consumers are more accepting of new information. Raghunathan and Pham (1999) show that due to certainty appraisal tendencies, sad consumers chose high-risk/high-reward options, whereas anxious consumers preferred low-risk/low-reward options. However, to our best knowledge, scant research has examined how global and local appraisal tendencies provoked by discrete emotions affect subsequent judgments. Thus, the present research contributes to the discrete emotions literature by articulating the process through which a new appraisal dimension activated by guilt or shame leads to systematic construal level differences and maps these effects on subsequent consumer judgments and decisions.

Previous research has documented how, due to specific appraisals associated with the emotion, discrete negative emotions affect persuasion and judgments. Much of this research relies on processes where appraisals serve as "information" that is then misattributed to other stimuli (e.g., sad participants make subsequent choices to reduce a sense of loss; Lerner, Small, and Lowenstein 2004) or where individuals try to find a specific way of reducing undesirable emotions (e.g., reducing anxiety by reducing uncertainty; Brooks and Schweitzer 2011; Gino, Brooks, and Schweitzer 2012). However, there is little research showing how discrete negative emotions can systematically affect general psychological processes such as cognitive mind-sets that might carry over to a variety of subsequent tasks. To fill this gap, the present research hypothesizes that guilt and shame will systematically change the construal level of consumers by influencing the activation of different appraisal tendencies and that these shifts in construal level will color how consumers make decisions in subsequent unrelated tasks. Therefore, the current research bears direct relevance for construal level theory and also broader relevance to the literature on emotion and appraisal factors that lead to biased processing and decision making.

Previous research has shown that mood (positive vs. negative vs. neutral) influences an activation of different levels of construals (Labroo and Patrick 2009; Pyone and Isen 2011) due to temporal differences (Förster, Özelsel, and Epstude 2010). However, little research has examined how two emo-

tions of the same valence can activate distinct construal mind-sets and the specific appraisal mechanisms responsible for producing these distinct mind-sets. To fill this theoretical gap, the current research further examines the underlying mechanism through which discrete emotions affect construal-level mind-sets by identifying a new appraisal tendency dimension (i.e., global and local appraisal tendency) that has not been investigated in the existing literature. We further triangulate on our theorized effects by invoking the literature on action versus inaction (Dahl, Honea, and Manchanda 2003; Leach and Plaks 2009) to investigate the underlying mechanism of local and global appraisal tendencies.

Four studies examine the proposed effects of the two negative emotions of guilt and shame and underlying processes. Study 1 demonstrates the basic effect that guilt results in lower construal levels while shame leads to higher construal levels. In the next three studies, we examine how a match between emotions and the construal levels of the marketing stimuli impacts judgment and choice. That is, we present products that vary in their feasibility and desirability (studies 2 and 3) or that vary the attractiveness of primary and secondary product attributes (study 4), and we test how emotions influence preference toward these options. Study 3 further examines why guilt (shame) leads to lower (higher) construal levels by measuring participants' appraisal tendencies and investigating the mediating role of appraisal tendencies in the carry-over effect. Finally, study 4 examines the moderating role of action/inaction to provide further evidence in support of the proposed theoretical processes of how emotions influence construal level.

HOW DO EMOTIONS AFFECT CONSTRUAL LEVELS?

Guilt, Shame, and Appraisals

The emotions of guilt and shame are termed self-conscious emotions because their elicitation requires individuals to pay attention to the self, to activate self-representation, and to generate self-evaluation (Lewis et al. 1989; Tangney and Dearing 2002; Tracy and Robins 2004). Guilt and shame share many similarities. Guilt and shame are both negative emotions, and both emotions are activated when individuals interpret an event as relevant but incongruent with their identity goals (Tracy and Robins 2004, 115). Also, guilt and shame lead consumers to see themselves as the one who brings socially undesirable outcomes (i.e., internal attributions; Tangney, Burggraf, and Wagner 1995; Tracy and Robins 2004). Although a number of emotion theorists have proposed that both emotions are elicited by similar cognitive processes (Lazarus 1991), recent research has begun to tease apart how these emotions differentially impact subsequent behaviors (Agrawal and Duhachek 2010; Dearing et al. 2005; Duhachek et al. 2012; Leith and Baumeister 1998; Tangney et al. 1996).

In particular, guilt is a negative emotion that is experienced when individuals appraise negative outcomes to their specific actions (Blum 2008; Brown and Weiner 1984; Lewis

Please use DOI when citing. Page numbers are not final.

1971; Tracy and Robins 2004). Guilt-laden individuals are likely to blame a specific behavior for the negative events rather than view their entire self negatively (Blum 2008; Lewis 2000; Tracy and Robins 2004; Tangney and Dearing 2002; Tangney, Stuewig, and Mashek 2007). For example, previous research shows that individuals who blame poor performance on one's specific errors (e.g., "I did not study hard") are more likely to feel guilty (Brown and Weiner 1984; Tracy and Robins 2002). In sum, feelings of guilt result from behavior-specific appraisals limited to the behavior that caused negative events or outcomes.

In contrast, shame is a negative emotion experienced when individuals attribute negative outcomes to global shortcomings within themselves (Lewis 1971, 2000; Van Vliet 2009). Individuals who experience feelings of shame tend to focus on the deficiency of their entire selves (Lewis 1992, 2000; Tangney 1995; Tangney and Dearing 2002; Tracy and Robins 2004) and blame themselves as a whole for negative events (Van Vliet 2009). For example, previous research shows that individuals who blame poor performance on a global deficiency of themselves (e.g., "I'm an unintelligent person") are more likely to experience feelings of shame (Brown and Weiner 1984; Tangney et al. 1992; Tracy and Robins 2002). Thus, feelings of shame result from global "self" appraisals about why negative events or outcomes happen.

Appraisal Tendencies and Construal Levels

The Appraisal-Tendency Framework (ATF; Han et al. 2007; Lerner, Han, and Keltner 2007; Lerner and Keltner 2000, 2001) provides a basis for predicting how local or global appraisals elicited by guilt or shame can alter the level at which information is construed in a subsequent task. According to the ATF, central appraisal patterns associated with specific emotions activate cognitive predispositions or responses to appraise subsequent future events or tasks in line with those appraisal patterns (i.e., an appraisal tendency; Han et al. 2007). Building on this framework, we propose that appraisals about negative outcomes associated with specific emotions may activate an overall appraisal tendency that may have a carry-over effect on subsequent tasks and influence how individuals construe information subsequently.

Specifically, since guilt is caused by behavior-specific appraisals that are local to the event, individuals experiencing guilt may appraise subsequent events in a way consistent with their appraisals. In other words, feeling guilty may activate local appraisal tendencies that lead individuals to give greater weight to specific aspects of subsequent situations or events than to global aspects. In contrast, since shame is caused by global or general self-appraisals, such as the "person" who did or did not engage in a shameful act, individuals feeling ashamed may elicit global appraisal tendencies that give greater weight to global aspects of events rather than specific aspects of the situation. Taken together, we posit that guilt will activate a local appraisal

tendency while shame will provoke a global appraisal tendency.

Next, we posit that these appraisal tendency-based differences between the two emotions may systematically alter the way individuals construe subsequent information. Construal level theory (CLT) suggests that depending on whether individuals focus on a global or local perspective of the action or event, the same action or event can be construed at different levels (Trope and Liberman 2003, 2010). According to CLT, global appraisals constitute high-level construals of objects, while local appraisals constitute low-level construals of objects (Nussbaum, Trope, and Liberman 2003; Semin and Fiedler 1988). For example, Semin and Fiedler (1988) showed that the verbs that describe the actions (e.g., A is talking to B) or interpret the actions (e.g., A is helping B) constituted lower-level construals. That is, when considering specific behaviors and situations, individuals are likely to activate lower (vs. higher) levels of construal. In contrast, when considering personalities and global dispositions, individuals tend to adopt a higher-level construal (Nussbaum et al. 2003; Semin and Fiedler 1988). For example, Semin and Fiedler (1988) found that trait adjectives represented higher-level construals. Building on this argument, we theorize that individuals experiencing guilt will construe information at a lower level since they should consider the specific aspects of objects in a subsequent task to a greater extent than the global aspects. Conversely, because individuals experiencing shame may consider global or dispositional aspects (vs. specific aspects) in a subsequent task to a greater degree, we propose that individuals experiencing shame will adopt higher-level construals. See table 1. Formally stated:

H1: Guilt (vs. shame) will lead consumers to construe events at lower (higher) levels of construal.

Construal Levels and Subsequent Judgments and Decision Making

Previous research on construal levels (Trope and Liberman 2003, 2010; Trope, Liberman, and Wakslak 2007) posits that the desirability of an event (e.g., the action's end state's value), primary features of an object, and decontextualized representations of the object constitute high construal levels, whereas the feasibility of an event (e.g., the means to achieve the end-state), secondary features of an object, and contextualized representations of the object constitute low construal levels. Differences in construal levels could affect subsequent judgments and decision making. That is, individuals who activate high- (low-) construal-level mind-sets prefer the options construed at a high (low) level to those construed at a low (high) level.

For example, Liberman and Trope (1998) showed that when participants were asked to consider attending a concert, participants who activated lower-construal-level mind-sets were more affected by whether the tickets were cheap (i.e., the feasibility of the event) than whether they liked the band

Please use DOI when citing. Page numbers are not final.

TABLE 1

THEORETICAL FRAMEWORK

Specific cognitive appraisals	→	Emotions	→	Appraisal tendencies	→	Construal level
Behavior-specific appraisals (e.g., "I did a bad thing")		Guilt		Local appraisal tendencies		Low construal level
Global self-appraisals (e.g., "I'm a bad person")		Shame		Global appraisal tendencies		High construal level

NOTE.—Columns to the right of the first arrow show the links tested in our research.

(i.e., the desirability), while those who activated higher-construal-level mind-sets were more affected by the desirability of the event than by the feasibility of the event. In addition, Trope and Liberman (2000) found that when buying a radio, participants who activated lower-construal-level mind-sets were more satisfied when they chose the radio that contained the unattractive primary feature but attractive secondary feature (i.e., the radio that has the poor sound quality but the good clock) because people in the lower-construal mind-set increased the tendency to assess the product based on the secondary features consistent with the lower level of construal. In contrast, participants at high-construal levels were more satisfied when they chose the radio that involved the attractive primary feature but unattractive secondary feature (i.e., the radio that has the good sound quality but the bad clock) because they increased the tendency to assess the product based on the primary features consistent with the higher level of construal.

Based on our proposition that guilt leads to low-level construals that make them focus on the means to achieve the outcomes or on secondary features related to the outcomes, while shame results in high-level construals that make them focus on the outcomes or primary features related to the outcomes, we predict a carry-over effect of guilt on subsequent judgments such that options construed at a low level (i.e., options with high feasibility, or options with unattractive primary but attractive secondary features) are preferred to options construed at a high level (i.e., options with high desirability, or options with attractive primary but unattractive secondary features), while the pattern reverses regarding the carry-over effect of shame on subsequent judgments. Further, we posit that these effects operate through unique appraisal tendencies resulting from the emotion. Formally stated:

- H2a:** Guilty individuals will prefer options that dominate on lower- (vs. higher-) level features.
- H2b:** Local appraisal tendencies will mediate the effect of guilt on preference.
- H3a:** Shameful individuals will prefer options that dominate on higher- (vs. lower-) level features.
- H3b:** Global appraisal tendencies will mediate the effect of shame on preference.

The crux of our theorizing relies on the argument that guilt triggers local appraisal tendencies because guilt is caused by behavior-specific appraisal (i.e., people attribute negative out-

comes to their specific behavior) and shame activates global appraisal tendencies because shame is caused by global self-appraisal (i.e., people attribute negative outcomes to the self) and that those appraisal tendencies activate different levels of construal mind-sets. To further investigate these unique underlying mechanisms, we further triangulate on our theory by bringing in the literature on action versus inaction. Specifically, Dahl et al. (2003) suggest that action versus inaction is an important delineator for guilt-related events. That is, some feel guilty because they do something (i.e., action or error of commission; e.g., cheating on an exam or overeating), while others feel guilty for not doing something (i.e., inaction or error of omission; e.g., did not go to the gym or did not go see a grandmother more frequently before she passed away). Furthermore, previous research (Gilovich and Medvec 1995; Leach and Plaks 2009; Savitsky, Medvec, and Gilovich 1997) suggests that errors of omission (i.e., inaction), relative to errors of commission (i.e., action), are construed more abstractly because "failing to act (i.e., inaction) leads people to imagine the many ways they could have acted and the many consequences of these potential courses of action" (Leach and Plaks 2009, 223; Savitsky et al. 1997) and perceiving wider ranges of outcomes constitutes higher level construals (Bar-Anan, Liberman, and Trope 2006). N'gbala and Branscombe (1997) found that counterfactuals elicited for actions were more subordinate (63.2%) than superordinate (15.8%), whereas counterfactuals elicited for inaction were more superordinate (85%) than subordinate (15%). Since superordinate features of the event constitute high-level construals and subordinate features of the event constitute low-level construals (Trope et al. 2007), this finding implies considering situations involving inactions relative to actions would lead to higher-level construals.

Building on these findings, we posit that individuals who feel guilty because of their inaction, as compared to those who feel guilty due to their actions, will take a higher level of construal of the situation. Thus, we expect that individuals who feel guilty because of their inaction will prefer the product option construed at a high level (e.g., attractive primary features but unattractive secondary features) than the product option construed at a low level (e.g., unattractive primary features but attractive secondary features), while the pattern will reverse for those who feel guilty because of their action. In contrast, we predict that the effects of action versus inaction will not influence shame-laden people because shame is caused by negative global self-evaluation (not by behavior-specific appraisals) and thus activates

Please use DOI when citing. Page numbers are not final.

global appraisal tendencies rather than a focus on specific behaviors. In other words, shame is not experienced from thinking about action or inaction but rather a negative global-self inference derived from that action or inaction (e.g., an action with a negative consequence would be seen as one's own failure to make a good decision, an inaction with a negative consequence might be seen as one's inability to take action when necessary). This inferential process activates global appraisal tendencies regardless of action or inaction. In sum, making shame-laden individuals think about behaviors that they did or behaviors that they did not do will not influence their subsequent judgments because their focus is on the negative "self" (e.g., "I'm a bad person") rather than behaviors.

H4a: Individuals experiencing guilt because of their action will prefer options dominating in lower- (vs. higher-) level features. Those experiencing guilt because of their inaction will prefer options stronger in higher- (vs. lower-) level features.

H4b: The effects of shame on preference for options dominating in higher- (vs. lower-) level features will not vary by action versus inaction.

These hypotheses will be tested in studies 1–4.

STUDY 1: NEGATIVE EMOTIONAL VARIATIONS IN CONSTRUAL LEVELS

Method

The goal of study 1 was to examine whether guilt activates lower-construal levels while shame results in higher-construal levels. Seventy-four undergraduate students at Indiana University participated in this study in exchange for course credit. Participants were randomly assigned to one of three conditions: a guilt or shame or control condition. Participants were told that they would take part in two unrelated studies: the first ostensibly conducted by the psychology department and the second by the communication department.

First, to manipulate emotions, participants were told that the psychology department was seeking to understand how people recall and describe past events. Specifically, participants were told to write down their feelings and thoughts regarding this event, trying to accurately recollect how they felt and acted during this episode. This procedure has been shown to be effective for manipulating specific emotional states (Tiedens and Linton 2001). Participants in the guilt (shame) condition were asked to recall a past event that made them feel intense guilt (shame) and what it felt like to be guilty (ashamed). They were then asked to write down the conditions surrounding this event and describe as vividly as possible what factors contributed to their intense feelings of guilt (shame). Participants in the control condition were asked to recall a particular incident they experienced the previous day. Participants were then told that they would be taking part in a (seemingly unrelated) second task, con-

ducted by the communication department to improve communication, investigating what certain behaviors imply to individuals. They were asked to finish the 25-item BIF questionnaire (Vallacher and Wegner 1989), which measured the level that individuals construe particular activities. In particular, they were asked to read a statement that describes an action (e.g., taking a test) and then choose which of two options (e.g., answering questions [a low-level construal] vs. showing one's knowledge [a high-level construal]) better described the way they viewed the activity. After the construal level measure, participants rated the extent to which they currently felt the emotions of guilt and shame. Three 7-point items measured guilt (1 = "not guilt-ridden/not culpable/not remorseful"; 7 = "guilt-ridden/culpable/remorseful"; $\alpha = .82$), and two items assessed shame (1 = "not shamed/not humiliated"; 7 = "ashamed/humiliated"; $r = .87$). Finally, the participants responded to suspicion measures and then were debriefed and thanked. No participant reported any suspicion of our hypotheses.

Results and Discussion

Manipulation Check. The guilt manipulation led to significantly more guilt than the shame or control manipulations ($F(2, 71) = 31.45, p < .001$). Pair-wise comparisons showed that participants in the guilt condition ($M_{\text{guilt}} = 5.14$) would feel more guilty than those in the shame condition ($M_{\text{shame}} = 3.29; p < .001$) and those in the control condition ($M_{\text{control}} = 2.89; p < .001$). The difference in guilt between participants in the shame condition and those in the control condition was not significant ($p > .17$). Similarly, the shame manipulation resulted in significantly more shame than the guilt or the control manipulations ($F(2, 71) = 34.49, p < .001$). Pair-wise comparisons revealed that participants in the shame condition would feel more ashamed ($M_{\text{shame}} = 5.33$) than those in the guilt condition ($M_{\text{guilt}} = 2.88; p < .001$) and those in the control condition ($M_{\text{control}} = 2.52; p < .001$). The difference in shame between participants in the guilt condition and those in the control condition was not significant ($p > .33$). Thus, the emotion manipulation was successful (see app. C).

Construal Levels. We calculated a construal level score following established procedures (Vallacher and Wegner 1989). We first coded the responses for each of the 25 items described in the BIF questionnaire such that if participants chose the lower-level construal option, we assigned a score of 0 and if participants chose the higher-level construal option, we assigned a score of 1. We then combined his or her scores for the 25 items to form the construal level score, with an overall higher score implying an activation of higher-construal-level mind-sets. A one-way ANOVA revealed the significant effect of emotion ($F(2, 71) = 9.43, p < .001$) such that participants in the guilt condition scored lower ($M_{\text{guilt}} = 12.29$) than those in the control condition ($M_{\text{control}} = 14.97; p < .047$). In contrast, participants in the shame condition ($M_{\text{shame}} = 18.25$) scored higher than those in the control condition ($M_{\text{control}} = 14.97; p < .012$). These

Please use DOI when citing. Page numbers are not final.

results supported our hypothesis (hypothesis 1) that experiencing guilt results in a low-level construal while shame leads to a high-level construal. In study 2, we investigate the carry-over effect of guilt versus shame on subsequent decisions that vary construal levels.

STUDY 2: PREFERENCE FOR FEASIBILITY OR DESIRABILITY

Study 2 examined how guilt versus shame influences a subsequent decision involving variations in construal levels. Specifically, the carry-over effect of emotions is tested on a decision task that consists of options differing in feasibility and desirability adapted from Liberman and Trope (1998). This task measured participants' intention to attend a concert with high desirability (e.g., liking the band) but low feasibility or a concert with high feasibility (e.g., cheaper price than usual) but low desirability. Based on our proposition that guilt would lead to lower-level construals that make them focus on the means to achieve the outcomes and shame would lead to higher-level construals that make them focus on the outcomes rather than the means, we expected that individuals in the guilt condition would prefer the high feasibility and low desirability option, whereas those in the shame condition would prefer the high desirability and low feasibility option. Furthermore, in study 2, we examined whether guilt leads individuals to put a greater weight on the low-construal-level feature of the subsequent event or task (i.e., consistent with local appraisal tendencies), whereas shame leads individuals to put a greater weight on the high-construal-level feature of the subsequent event or task (i.e., consistent with global appraisal tendencies).

Method

One hundred and seventy-one undergraduate students at Indiana University took part in this study in exchange for partial course credit. Participants were randomly assigned to one of six conditions in a 3 (emotion: guilt vs. shame vs. control) \times 2 (concert feature: high desirability but low feasibility vs. high feasibility but low desirability) between-subject design. Participants were told that they were participating in two unrelated studies: the first ostensibly conducted by the psychology department and the second by the marketing department. Emotion was manipulated using the same procedure described in study 1.

Concert Involving Feasibility versus Desirability. After the emotion induction, participants were told that they would take part in a second unrelated study conducted by the marketing department. They were informed that the marketing department was interested in how college students make decisions, and they were shown a series of five different decision-making situations. In one of those decision-making situations, participants were presented with a task that asked them their likelihood of attending a concert. Adapting from Liberman and Trope (1998), participants were told to imagine that their friend would ask them to buy two tickets for

a concert. In the high desirability and low feasibility condition, participants read a description of the concert and were told that the concert was performed by a band that they liked (high desirability) but the ticket price was more expensive than their usual price (low feasibility). In the low desirability and high feasibility condition, participants read that a concert was to be performed by a new band that they were not sure they would like (low desirability), but the ticket cost less than the usual price (high feasibility). After reading the description of the concert, participants were asked to imagine that they were in that situation and to report their intention of attending the given concert on a scale of 1 (not likely at all) to 9 (very likely). They were then asked to rate the extent to which the high-construal-level feature of the concert or the low-construal-level feature of the concert was important when they made a decision by answering the following two questions (Liberman and Trope 1998, 11) using a 9-point scale ranging from 1 (not at all important) to 9 (very important): "In this situation, how important was it for your decision whether or not you like the band [i.e., a high-construal-level feature of the concert]? In this situation, how important was it for your decision whether or not the tickets were cheap [i.e., a low-construal-level feature of the concert]?" After the judgment task, emotion manipulation checks were administered by using the items used in study 1 (three items measuring guilt; $\alpha = .87$; two items assessing shame; $r = .70$). Finally, suspicion measures were collected at the end of the study, and these indicated no suspicion of our hypotheses.

Results and Discussion

Manipulation Check. The emotion manipulation was again successful, and the results replicated the pattern of effects from study 1 (see app. C).

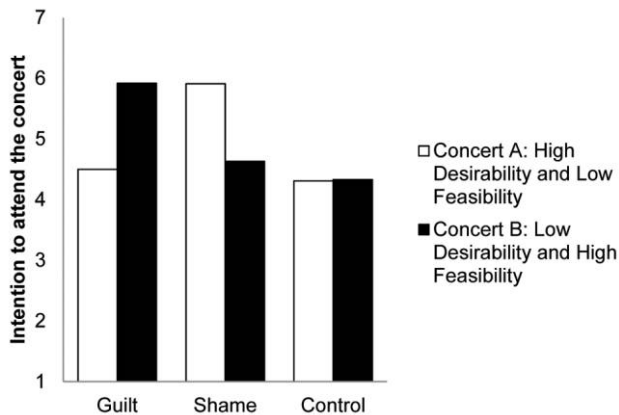
Intention to Attend the Concert. Participants' ratings of their intention to attend this concert were submitted to a 3 \times 2 ANOVA. This analysis showed that only an emotion \times concert feature interaction was significant ($F(1, 165) = 6.75, p < .002$). Pair-wise comparisons revealed that participants in the guilt condition showed a greater intention to attend the concert with high feasibility (cheaper price; $M = 5.92$) than with high desirability (liking the band; $M = 4.50; F(1, 165) = 7.56, p < .007$), supporting hypothesis 2a. The results also revealed that participants in the shame condition showed a greater intention to attend the concert with high desirability (liking the band; $M = 5.91$) than with high feasibility (cheaper price; $M = 4.63; F(1, 165) = 6.00; p < .015$), supporting hypothesis 3a. In the control condition, the difference in intention to attend a concert between high feasibility ($M = 4.33$) and high desirability ($M = 4.31$) was not significant ($F(1, 165) = .001; p > .97$). See figure 1.

Feature Importance. We first performed a 3 \times 2 ANOVA on the importance of the low-construal-level feature (i.e., cheaper price) in the concert decision. The analysis revealed a main effect of emotions ($F(1, 165) = 6.21, p <$

Please use DOI when citing. Page numbers are not final.

FIGURE 1

STUDY 2 RESULTS: GUILT PREFERS THE OPTION CONSTRUED AT A LOW LEVEL, AND SHAME PREFERS THE OPTION CONSTRUED AT A HIGH LEVEL



.003). No other effects were significant ($p > .69$). Participants in the guilt condition reported greater importance of the low-construal-level feature ($M = 6.73$) than did participants in the shame condition ($M = 5.61$, $p < .004$) and those in the control ($M = 5.29$, $p < .003$). The difference between the shame and control conditions was not significant ($p > .59$). Next, a 3×2 ANOVA on the importance of the high-construal-level feature (i.e., liking the band) showed that the main effect of emotions was significant ($F(1, 165) = 3.47$, $p < .034$). No other effects were significant ($p > .12$). Participants in the guilt condition indicated less importance of the high-construal-level feature ($M = 5.77$) than did participants in the shame condition ($M = 6.69$, $p < .024$) and those in the control condition ($M = 5.73$, $p < .03$). The difference between the shame and control conditions was not significant ($p > .82$). These results showed that participants feeling guilt (vs. shame) considered the low-construal-level feature, cheaper price, to be more important, while those feeling shame (vs. guilt) considered the high-construal-level feature, liking the band, to be more important.

The results of study 2 showed that guilt-laden individuals preferred the option with high feasibility but low desirability, whereas shame-laden individuals preferred the option with high desirability but low feasibility. These findings provide evidence that emotions have a carry-over effect on consumer decisions because of construal-level shifts. In addition, the findings indicated that participants in the guilt condition considered the low- (vs. high-) construal-level feature of the concert more important, while those in the shame condition considered the high- (vs. low-) construal-level feature of the concert to be more important, supporting our theorizing that guilt leads individuals to put a greater weight on the low-construal-level feature of the subsequent event or task (i.e.,

an activation of local appraisal tendencies), whereas shame leads individuals to put a greater weight on the high-construal-level feature of the subsequent event or task (i.e., an activation of global appraisal tendencies). In study 3, we address the question of the process through which emotions affect construal levels.

STUDY 3: LOCAL OR GLOBAL APPRAISAL TENDENCIES AS MEDIATOR

To shed light on this process by which emotions affect construal levels, we build on appraisal theories (Smith and Ellsworth 1985) and the appraisal tendency framework (Han et al. 2007). Specifically, we argue that local versus global appraisal tendencies associated with the emotions of guilt and shame activate lower- or higher-level construals. Thus, we posit that local (global) appraisal tendencies mediate the effects of guilt (shame) on a preference toward options with high feasibility (high desirability; hypothesis 2b and hypothesis 3b). In this study, we measured the appraisal tendencies to test their mediating role.

Method

Fifty-five undergraduate students at Indiana University took part in the study for the exchange of one credit. Participants were randomly assigned to either the guilt or the shame condition. After the emotion induction, participants were told that they would take part in a seemingly unrelated study that investigated how individuals reacted to situations that they were likely to encounter every day. The appraisal tendency measure was collected next.

Local versus Global Appraisal Tendency Measures. To measure appraisal tendency, participants were given six different scenarios adapted from the Test of Self-Conscious Affect (TOSCA-3; Tangney and Dearing 2002; Tangney, Wagner, and Gramzow 2000) and were asked to imagine themselves in each scenario and report the likelihood that they would react in each of the ways anchored on a 7-point scale (1 = not likely, 7 = very likely; see app. B). TOSCA-3 is a scenario-based scale to measure feelings of guilt and shame. Each scenario is followed by possible reactions, and individuals are asked to imagine themselves in each situation and report the likelihood of responding in each way. Among those reactions, two reactions capture characteristics of feelings of guilt or shame. We adapted and revised items from the TOSCA-3 (Tangney and Dearing 2002; Tangney et al. 2000). Specifically, we selected six different scenarios with two possible responses that tapped into a behavior-specific appraisal dimension associated with guilt or a global self-appraisal dimension associated with shame. For example, one of the six scenarios read: "You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood your friend up." One response read: "You would think: I'm an inconsiderate person" [i.e., a global self-appraisal dimension]. The other response read: "You would think: I should have been more careful about my calendar [i.e., a behavior-

Please use DOI when citing. Page numbers are not final.

TABLE 2
STUDY 3 RESULTS: GUILT PREFERS FEASIBILITY AND SHAME PREFERS DESIRABILITY

Independent variables	Primed emotions	
	Guilt	Shame
Dependent measures:		
Attitude toward Auction A (high desirability and low feasibility)	2.79	7.26***
Attitude toward Auction B (high feasibility and low desirability)	6.29	3.48***
Local appraisal tendencies	33.04	24.00***
Global appraisal tendencies	20.11	32.30***

***Contrasts between two emotions' means in the each row were significant at $p < .001$.

specific appraisal dimension].” For each scenario, participants rated the degree to which they would appraise their response to negative aspects of the person described (i.e., global appraisal tendency) or the specific behavior of that person (i.e., local appraisal tendency).

Participants were then asked to complete a decision task that involved reporting their preference between two websites for that had auctions that differed in desirability (i.e., appeal of the products available in the auction) and feasibility (i.e., convenience of automatic bidding) to get an MP3 player. Specifically, the auction service with high desirability but low feasibility (low desirability but high feasibility) was depicted as follows: “After reviewing the information about this auction service, you found that you like the MP3 players listed on its website. But the auction system does not offer automatic bidding. You will need to go to the auction website to update your bids frequently. (After reviewing the information about this auction service, you found that you don’t like the MP3 players listed on its website very much. But it is convenient to participate in bidding there. Its auction system can help you automatically update bids once you specify an upper limit number as well as an incremental number.” The order of presenting description of the two websites was randomized. Participants rated the extent to which they would be likely to use auction service A (i.e., high desirability and low feasibility) and auction service B (i.e., low desirability and high feasibility) on a scale of 1 (highly unlikely) to 9 (highly likely).

Results and Discussion

Manipulation Check. The emotion manipulation was again successful (see app. C).

Attitude toward the Auction Service Websites. An ANOVA with repeated measures (i.e., attitude toward auction service A – attitude toward auction service B) revealed a significant emotion by product options (i.e., within-subject factor) interaction ($F(1, 53) = 82.51, p < .001$) such that participants in the guilt condition showed greater intention to use auction service B (i.e., low desirability and high feasibility) than auction service A (i.e., high desirability and low feasibility; $M_{\text{high_CL}} = 2.79$ vs. $M_{\text{low_CL}} = 6.29; p < .001$), while participants in the shame condition indicated greater intention to use auction service A than auction ser-

vice B ($M_{\text{high_CL}} = 7.26$ vs. $M_{\text{low_CL}} = 3.48; p < .001$). See table 2.

Local/Global Appraisal Tendencies as the Mediators. First, we created a global appraisal tendency index by summing six global items and a local appraisal tendency index by summing six local items. We expected guilt-laden participants to attribute the negative event described in each scenario to their specific action rather than themselves (i.e., higher scores in local appraisal tendency measures than in global appraisal tendency measures) and shame-laden participants to attribute the negative event to themselves rather than their specific actions (i.e., higher scores in global appraisal tendency measures than in local appraisal tendency measures). Consistent with our expectation, the repeated measure ANOVA results (emotion: between-subjects factor; appraisal indices: within-subject factor; $F(1, 53) = 329.68, p < .001$) indicated that in the guilt condition, the local appraisal tendency index (33.04) was significantly greater than the global appraisal tendency index (20.11; $p < .001$), while in the shame condition, the global appraisal tendency index (32.30) was greater than the local appraisal tendency index (24.00; $p < .001$).

Next, we used the global and local appraisal tendency indices as the mediators to examine the mediating role of local or global appraisal tendencies on the proposed relationship. We followed the procedure recommended in Zhao, Lynch, and Chen (2010). A bootstrap analysis was conducted to evaluate the indirect effect of emotions (0 = guilt, 1 = shame) upon preference toward the option with high desirability (i.e., auction service A) through global appraisal tendencies, not through local appraisal tendencies. A bootstrapping analysis indicated that, as expected, the global appraisal tendencies pathway was significant (AB indirect effect path = 1.71; $p < .003$; 95% CI: .67 to 2.83), while the local appraisal tendencies pathway was not significant (AB indirect effect path = .67; $p > .16$; 95% CI: $-.53$ to 1.61). These results indicate that global appraisal tendencies mediated the effects of emotions on intention to use auction A, which has high desirability but low feasibility attributes, but not the local appraisal tendencies.

We also conducted the same procedure for attitude toward the auction service B (i.e., high feasibility). A bootstrap analysis was conducted to evaluate the indirect effect of emotions (0 = guilt, 1 = shame) upon preference toward

Please use DOI when citing. Page numbers are not final.

the option with high feasibility (i.e., auction service B) through local appraisal tendencies, not through global appraisal tendencies. A bootstrapping analysis indicated that, as predicted, the local appraisal tendencies pathway was significant (AB indirect effect path = -1.72 ; $p < .006$; 95% CI: -3.17 to $-.11$), while the global appraisal tendencies pathway was not significant (AB indirect effect path = $.46$; $p > .57$; 95% CI: -1.37 to 2.15). These results indicate that appraisal tendencies mediated the effects of emotions on intention to use auction B, which has high-feasibility but low-desirability attributes, whereas the global appraisal tendencies did not (see figs. 2 and 3).

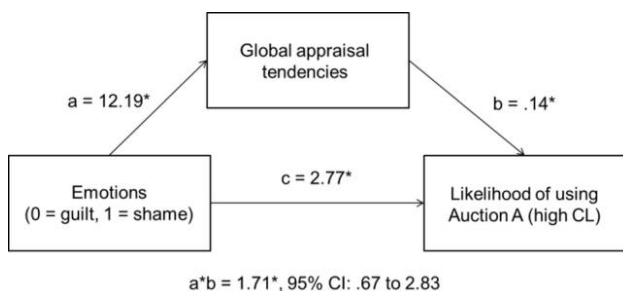
The results in study 3 support the proposed theorizing. First, the results replicate the pattern of preferences found in study 2. Second, the results provide evidence in support of the key linkages between guilt (and shame) and construal levels by showing that local (global) appraisal tendencies mediated the effect of guilt (shame) on consumer preference for the option which has high feasibility (high desirability) attributes. These findings are important because we provide evidence that guilt and shame affect construal levels via an activation of local or global appraisal tendencies—a new appraisal tendency dimension not previously investigated. This finding provides a novel mechanism through which emotions activate construal levels. In study 4, we examined the moderating role of action/inaction to provide additional support for the underlying processes and theorizing.

STUDY 4: ACTION/INACTION AND BEHAVIOR VERSUS SELF-APPRAISAL

The key premise of the current research is that guilt activates local appraisal tendencies because guilt is experienced from behavior-specific appraisals, whereas shame elicits global appraisal tendencies because shame is caused by global self-appraisals and that those differences in ap-

FIGURE 2

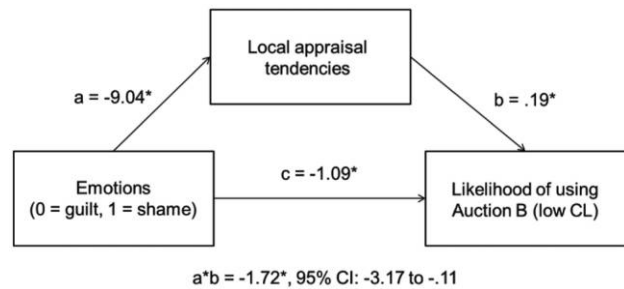
BOOTSTRAPPING ANALYSES FOR MEDIATION IN STUDY 3: THE MEDIATING ROLE OF GLOBAL APPRAISAL TENDENCIES ON THE RELATIONSHIP BETWEEN EMOTIONS AND PREFERENCE FOR THE DESIRABLE OPTION



NOTE.—* $p < .05$.

FIGURE 3

BOOTSTRAPPING ANALYSES FOR MEDIATION IN STUDY 3: THE MEDIATING ROLE OF LOCAL APPRAISAL TENDENCIES ON THE RELATIONSHIP BETWEEN EMOTIONS AND PREFERENCE FOR THE FEASIBLE OPTION



NOTE.—* $p < .05$.

praisal tendencies result in different level of construals. To provide further evidence of the process, we merge the literature on guilt (Dahl et al. 2003) and the literature on action/inaction (Leach and Plaks 2009; N'gbala and Branscombe 1997) and propose that people who feel guilty because of their inaction will activate higher-construal-level mind-sets as compared to those who feel guilty due to their action, because previous research has suggested that inaction relative to action elicits higher-level construals (Leach and Plaks 2009; N'gbala and Branscombe 1997). For example, N'gbala and Branscombe (1997) showed that counterfactuals elicited for actions constituted low- (vs. high-) construal-level features, whereas counterfactuals elicited for inaction constituted high- (vs. low-) construal-level features. In addition, we posited that the effects of action versus inaction would not influence shame-laden consumers because shame is not experienced from thinking about action or inaction but rather a negative global-self inference derived from that action or inaction (e.g., an action with a negative consequence would be seen as one's own failure to make a good decision, an inaction with a negative consequence might be seen as one's inability to take action when necessary). This inferential process provokes global appraisal tendencies regardless of action or inaction. Thus, in study 4, we examined whether the action versus inaction distinction would moderate the effects of guilt on preference toward the product construed at different levels but would not moderate the effects of shame on preference. To enrich the ecological validity, in this study, we examined our theory in a consumer decision-making context by having participants review the attributes of the actual products and make choices as opposed to preferences. We also used a different operationalization of construal level (i.e., attractive primary features but unattractive secondary features vs. unattractive primary features but attractive secondary features; Trope and Liberman 2000; Wan and Agrawal 2011).

Please use DOI when citing. Page numbers are not final.

Method

Two hundred and seventy-four respondents from an online panel via Amazon's Mechanical Turk took part in this study and were paid \$1.00 for completing the study. They were randomly assigned to one of four conditions in a 2 (emotion: guilt vs. shame) \times 2 (action/inaction: action vs. inaction) between-subjects design that asked participants to choose from two MP3 players. The choice of MP3 player was designed such that one option featured an attractive primary feature but an unattractive secondary feature, whereas the other option featured an unattractive primary feature but an attractive secondary feature. We manipulated emotions and action/inaction by revising the instruction of the emotional recall task used in previous studies. Specifically, we manipulated guilt (shame) and action (inaction) of the past event by asking participants to recall a past event that caused them to feel guilty (ashamed) because they DID something (DID NOT DO).

After completing the recall task, participants were told that they would take part in the second part of the studies conducted by the marketing department and were shown the user survey results regarding two different (fictitious) brands of the MP3 player, adopting the method used by Jain and Maheswaran (2000). Brand names were described as Brand A and Brand B to lead participants to focus on the information provided. Participants were informed that brand names would be revealed at the end of the study. The two brands were priced identically at \$199.99. Previous research showed that eight product features, four primary (i.e., storage capacity [GB], max duration of battery [hours], music service compatibility, and physical features) and four secondary (i.e., direct camera upload, bluetooth, external hard drive function, and radio) were relevant in this product category and varied in terms of their importance (Agrawal et al. 2013). Adapting from Trope and Liberman (2000), we manipulated construal levels of brands by varying the attractiveness of primary versus secondary features of each product. First, Brand A was construed at the low level (i.e., unattractive primary features and attractive secondary features). Specifically, the user survey results indicated differences in the percentage of respondents who believed Brand A was better than Brand B along one of four primary product features and three out of four secondary product features. In contrast, Brand B was construed at the high level (i.e., attractive primary features and unattractive secondary features). In particular, the user survey results indicated that the percentage of users who felt Brand B was superior to Brand A was greater than the percentage of users who felt Brand A was superior to Brand B along three of four primary product features and one of four secondary product features. After viewing the user survey, participants were asked to answer a series of questions regarding the two brands. Embedded in this series of measures was the focal measure of product choice ("Which brand do you prefer?"). Finally, participants provided demographic information and were debriefed. Suspicion measures indicated that none of the participants thought that the two studies were related.

Results and Discussion

Manipulation Check. Manipulation checks were administered using the items from previous studies (three items measuring guilt; $\alpha = .88$; two items assessing shame; $r = .66$). We also measured feeling of regret with a single 7-point item ("How regretful do you feel?" anchored on 1 = not at all and 7 = very much) because prior research suggests that action and inaction may activate different levels of regret (Leach and Plaks 2009). With respect to guilt, the 2 \times 2 ANOVA results revealed that the main effect of emotions was significant ($F(1, 270) = 4.12, p < .04$) such that the guilt manipulation resulted in significantly more guilt ($M_{\text{guilt}} = 4.37$) as compared to the shame manipulation ($M_{\text{shame}} = 3.93$). However, the effect of action/inaction ($F(1, 270) = .00, p > .99$) and the interaction between emotions and action/inaction ($F(1, 270) = .16, p > .69$) were not significant. Similarly, with respect to shame, the 2 \times 2 ANOVA results revealed that the main effect of emotions was significant ($F(1, 270) = 6.90, p < .009$) such that the shame manipulation resulted in significantly more shame ($M_{\text{shame}} = 4.27$) as compared to the guilt manipulation ($M_{\text{guilt}} = 3.70$). However, the effect of action/inaction ($F(1, 270) = .15, p > .70$) and the interaction between emotions and action/inaction ($F(1, 270) = .12, p > .73$) were not significant. Finally, the effects of emotions, of action/inaction, and of the interaction between two on the regret scores were not significant ($p > .15$), suggesting that emotions and action/inaction manipulations did not affect regret.

Choice of the MP3 Players. We first regressed participants' MP3 player choice (1 = chose Brand A with attractive secondary features; 0 = chose Brand B with attractive primary features) on emotion (0 = shame, 1 = guilt), action/inaction (0 = inaction, 1 = action), emotion \times action/inaction in a binary logistic regression, controlling for regret by including regret score as a covariate. The results showed that only the effect of the emotion by action/inaction interaction was significant ($B = 1.43, \text{Wald test} = 7.72, p < .005$). Next, we compared choice shares across conditions (see table 3). As expected, in the guilt \times action condition, more participants selected Brand A with attractive secondary features (68.6%) than Brand B with attractive primary features (31.4%; $z = 2.20, p < .03$), whereas in the guilt \times inaction condition, more participants selected Brand B with attractive primary features (63.5%) than Brand A with attractive secondary features (36.5%), although the difference was marginally significant ($z = -1.64, p < .10$), supporting hypothesis 4a. However, in the shame condition, more participants chose Brand B with attractive primary features than Brand A in both action (Brand A: 32.3% vs. Brand B: 67.7%; $z = -2.02, p < .04$) and inaction (Brand A: 33.8% vs. Brand B: 66.2%; $z = -1.84, p < .065$) conditions, supporting hypothesis 4b.

The results of study 4 provide further evidence of the underlying mechanism by relying on the literature on action/inaction. The results showed that when participants experienced guilt because of their action, they preferred the prod-

Please use DOI when citing. Page numbers are not final.

TABLE 3
STUDY 4 RESULTS: CHOICE SHARES

Dependent measures	Independent variables: Primed emotions			
	Guilt		Shame	
	Action	Inaction	Action	Inaction
Choice share of Brand A (unattractive primary but attractive secondary features; %)	68.6	36.5	32.3	33.8
Choice share of Brand B (attractive primary but unattractive secondary features; %)	31.4	63.5	67.7	66.2

uct with unattractive primary features but attractive secondary features, whereas when they experienced guilt because of inaction, their tendencies to prefer the product with unattractive primary features but attractive secondary features were attenuated (directionally reversed). These findings were consistent with our prediction that inaction activates high-construal mind-sets, thus undoing the effect of guilt on preference for the product construed at a low level. However, when participants experienced shame, they preferred the product with attractive primary features but unattractive secondary features, regardless of action/inaction. These findings were also consistent with our prediction that action versus inaction would not influence shame-laden people because shame is experienced from focusing on the self, not specific behavior, and thus activates global appraisal tendencies. Taken together, these findings provide further evidence that local versus global appraisal tendencies mediate the effect of emotions and construal level on consumer choice.

GENERAL DISCUSSION

Summary

This research investigates how the discrete negative emotions of guilt and shame activate distinct construal level mind-sets. In study 1, we provide evidence that guilt results in lower-level construals while shame leads to higher-level construals. Study 2 found that guilt prefers options with high feasibility, whereas shame prefers options with high desirability. Study 3 replicated the findings of study 2 and illuminated the processes underlying these effects by finding mediation showing that guilt (shame) activates lower- (higher-) level construals via activation of local (global) appraisal tendencies. In study 4, we show that action/inaction moderates the effects of guilt on preference toward the options construed at different levels, while it does not moderate the effects of shame on the options construed at different levels. We will now discuss the theoretical contributions and implications of this research.

Theoretical Contributions

Discrete Emotions, Appraisals, and Appraisal Tendencies. The present study contributes to the literature on appraisal theories of emotions (Smith and Ellsworth 1985) and ATF (Han et al. 2007) by focusing on a key cognitive ap-

praisal dimension that has not been investigated in the context of appraisal-based impacts on judgment. Previous research in this vein has documented the carry-over effects of various cognitive appraisal dimensions, such as coping (Duhachek et al. 2012), certainty (Tiedens and Linton 2001), and self or other agency (Agrawal et al. 2013), on subsequent judgment and decision making. However, the current research makes a unique contribution to the extant literature by looking at the role of local/global appraisals (and thus local/global appraisal tendencies) associated with guilt and shame in systematically altering the level at which consumers construe subsequent information. Although the current research focuses on the two negative emotions of guilt and shame, future research could examine whether our findings would be replicated in the positive emotion context, thereby increasing our confidence that local/global appraisal tendencies drive the effects we found. For example, Tracy and Robins (2007) suggests two types of pride that may mirror these effects: authentic pride and hubristic pride. Authentic pride is experienced when individuals appraise positive outcomes to their specific actions, whereas hubristic pride is experienced when people appraise positive outcomes to their global self. We expect that authentic pride will mimic guilt because both emotions are associated with local appraisals, while hubristic pride will resemble shame because both are associated with global appraisals.

Guilt, Shame, and Subsequent Judgments. The current research contributes to the literature on guilt and shame. Prior research in the psychology domain has shown that guilt and shame have a distinct impact on subsequent behavior such as alcohol use or interpersonal relationships (Dearing et al. 2005; Leith and Baumeister 1998). Building on these findings, the recent research in the marketing domain has demonstrated the differential effects of guilt and shame on defensive processing (Agrawal and Duhachek 2010) or coping processes and persuasion (Duhachek et al. 2012). However, scant research has examined how guilt and shame activate different appraisal tendencies and cognitive mind-sets, which in turn color subsequent judgments in daily life. By documenting the effects of these two distinct emotions on subsequent judgments, the current research enriches the literature on guilt and shame. Although the current research focuses on the effects of guilt and shame on subsequent judgments and choices, future research could extend the findings of the present research by examining the effects

Please use DOI when citing. Page numbers are not final.

of guilt and shame on other consumer behaviors such as self-control.

Furthermore, prior research on guilt and shame has differentiated guilt and shame based on behavior-specific versus global self appraisals (Tangney and Dearing 2002). However, little research has directly examined the processes through which these appraisal differences of guilt and shame influence subsequent judgment. The current research fills this gap by identifying and showing a mediating role of local/global appraisal tendencies.

The current research is restricted to conceptual processing or inferential processes such as drawing behavior-specific or global inferences. The effects documented here may be more generalized through the link between conceptual and perceptual processing. Previous research shows that perceptual processing influences conceptual processing (Förster and Dannenberg 2010; Friedman et al. 2003). Past work in this vein has shown that broadened perceptual processing increases conceptual processing and provokes abstract construal (Förster and Dannenberg 2010; Martindale 1995). Building on these findings, future research could examine how global/local processing influences consumer preferences through an activation of conceptual processing and construal levels. It could identify a set of emotions that differ on a dimension that varies as a function of construal level but not processing style or vice versa. By doing so, future research would build a bridge between the literatures on emotions, construal level theory, and processing style by showing convergence.

Although the current research shows that guilt activates lower-level construals and shame provokes higher-level construals, there may be times when guilt results in an activation of higher-level construals and shame leads to an activation of lower-level construals. Study 4 identified one such moderating factor for guilt (e.g., guilt from inaction is construed at a higher level). Future research is needed to uncover additional moderators.

In addition, previous research has shown that promotion focus is associated with higher-level construals and prevention focus is associated with lower-level construals (Lee, Keller, and Sternthal 2010). Research has yet to examine how regulatory focus may interact with discrete emotions in driving subsequent construal levels. Thus, future research could examine potential synergies and divergence between these constructs.

Different Types of Guilt-Eliciting Events. The present research contributes more specifically to the literature on guilt. Prior research has shown that guilt-eliciting events can be classified into different categories (e.g., action/inaction; Dahl et al. 2003). By incorporating the findings from Dahl et al. (2003), the current research shows that guilt elicited due to action (vs. inaction) activates lower-construal mind-sets and shapes preferences in subsequent decision making. Thus, the current research enriches the findings in the extant literature. Although the current research distinguishes guilt-eliciting events based on the action versus inaction distinction, future research could examine how other different types

of guilt-eliciting events can influence subsequent judgments. For example, Dahl et al. (2003) further found that guilt-eliciting events could be categorized into “guilt related to others, guilt related to societal standards, and guilt related to oneself” (Dahl et al. 2003, 162). Future research could examine how these different types of guilt affect the way consumers construe information and influence subsequent decisions.

Discrete Emotions, Construal Levels, and Biased Judgments. The current research contributes to the literature on emotions and the literature on construal level theory (Trope and Liberman 2003, 2010) by providing a unifying framework regarding why discrete emotions results in different construal levels. Past research on emotions shows that discrete negative emotions influence persuasion, judgments, confidence, and coping strategies. Most of this research shows that people misattribute some specific aspect of the emotion to the subsequent stimuli (e.g., anxious people may think the subsequent stimuli look uncertain and perhaps risky. Consequently they tend to avoid risk and choose safer options). However, to our best knowledge, no research has examined how discrete negative emotions differentially affect subsequent information processing through activation of general psychological mind-sets. By documenting that guilt and shame systematically change the level at which consumers construe subsequent information, we show that emotions can trigger distinct mind-sets. We further show that this shift in construal-level mind-sets arises from differences in the type of appraisal tendencies (guilt and local vs. shame and global) associated with the emotion.

As we consider the findings of the current research, it is important to consider a mood-repair-driven explanation. One may argue that shame might induce stronger or more intense negative emotion than guilt and that a product with high desirability (e.g., liking the band) might induce more positive affect than the one with high feasibility (e.g., cheaper concert ticket), thus leading shame-laden individuals (vs. guilt-laden individuals) to prefer desirable options to repair their negative mood. However, it should be noted that a mood-repair explanation may not be able to explain the findings of study 4, where we replicate the same pattern with primary features (e.g., storage capacity) versus secondary features (e.g., external hard drive function). Further, an additional study ($N = 80$) showed that the option with high desirability did not induce greater positive affect than the option with high feasibility ($p > .56$).

On the one hand, past research has shown that positive (vs. negative or vs. neutral) emotions lead to higher-level construals (Labroo and Patrick 2009; Pyone and Isen 2011). This may suggest that all discrete negative emotions may lead to lower levels of construal because of their negative valence. On the other hand, research on discrete positive emotions has shown that the two distinct positive emotions of lust and love result in different construal levels, suggesting that discrete negative emotions may lead to different levels of construal (Förster et al. 2010). Our research resolves the question of whether discrete negative emotions

Please use DOI when citing. Page numbers are not final.

can lead to different levels of construal at two levels. First, we identify that two negative emotions (i.e., guilt and shame) can lead to different levels of construal. Second, while the previously mentioned articles show systematic effects of mood or emotions on construal levels, there is little evidence of the process by which emotions impact construal level. We show that the appraisals associated with guilt (e.g., behavior-specific appraisals) and shame (e.g., global self-appraisals) lead to local versus global appraisal tendencies, which in turn lead to differences in construal levels.

Second, beyond the contributions to the literature on discrete emotions and construal level theory, the current research makes a contribution to the broader literature on how emotions influence biased judgment and decision making (Agrawal et al. 2013; Raghunathan and Pham 1999) because prior research has suggested that appraisal tendencies result in biased information processing and choices and the present research identifies the local- or global-appraisal-tendency dimension that may color consumers' subsequent judgments via the activation of different construal mind-sets. In addition, prior research on construal level theory has documented that different levels of construal affect consumers' judgments and decision making differentially in multiple contexts (e.g., persuasion: Kim, Rao, and Lee [2009] and Lee et al. [2010]; price and quality judgment: Yan and Sengupta [2011]; self-control: Agrawal and Wan [2009] and Zhang, Huang, and Broniarczyk [2010]). Therefore, the present research will enrich our understanding of how emotions result in judgment or decision biases via different appraisal tendencies and construal level mind-sets.

Managerial Implications

In addition to contributions to theory, the current research also has important implications for marketing practitioners because marketers frequently rely on guilt and shame in advertising as a means of influencing consumers in a variety of contexts. In addition, the current research is important because consumers experience guilt and shame frequently in daily life and these emotions affect subsequent behaviors. For example, a consumer who feels guilty because he/she

bought luxury clothes may donate money to charity. A consumer who feels ashamed because of binge drinking or overeating may purchase a healthier product. Given the findings in the current research that guilt and shame activate different construal-level mind-sets and that these shifts in construal mind-sets affect subsequent judgments, advertising messages designed to foster guilt and shame should include messages specifically tailored to the proper level of construal.

Previous research has shown that marketers can activate feelings of guilt and shame by simply including words "guilt" or "shame" in the ads (Duhachek et al. 2012). For example, marketing managers who run a fitness club can develop the following ad that induces guilt (e.g., "Overeating again? How GUILTY do you feel? Stop Overeating and Join Our Fitness Program!") and mentions low-construal-level features of the fitness program (e.g., a feasibility feature of the fitness program: "provides yoga classes once a week"). In contrast, managers can induce shame ("Are You Overweight? How ASHAMED do you feel? Stop Overeating and Join Our Fitness Program.") and highlight high-construal-level features of the fitness program (e.g., a desirability feature of the fitness program: "ensures that you feel healthy all the time"). Guilt and shame are emotions frequently used in public service messages for sensitive topics where an individual's behavior change is desired and strongly encouraged. Understanding when such guilt or shame appeals should present either higher- or lower-level construals of desired behavior would help improve the effectiveness of such appeals.

DATA COLLECTION INFORMATION

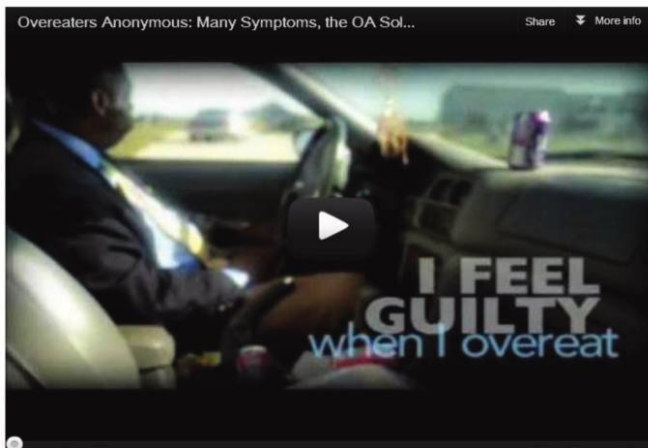
The first author and the second author supervised the collection of data for study 1 in January 2012, study 2 in June 2012, and study 3 in March 2012, by research assistants at the Kelley School of Business Behavioral Lab at Indiana University. These data were analyzed by the first author. The first author managed the collection of data for study 4 via Amazon's Mechanical Turk in August 2013. These data were analyzed by the first author.

Please use DOI when citing. Page numbers are not final.

APPENDIX A
EXAMPLES OF ANTI-OVEREATING AD MESSAGES FEATURING GUILT AND SHAME

FIGURE A1

A SCREENSHOT FROM OVEREATERS ANONYMOUS



NOTE.—<http://www.oa.org/mediaprofessionals/psa-public-service-announcements>.

FIGURE A2

A SCREENSHOT FROM THE HELP FOR EATING DISORDER WEBSITE



NOTE.—<http://www.helpforeatingdisorder.com>; <http://www.youtube.com/watch?v=2PiSHKDtEpw>.

APPENDIX B

STUDY 3: MEASURES OF GLOBAL VERSUS LOCAL APPRAISAL TENDENCIES

The following instructions are adapted and revised from TOSCA-3 (Tangney and Dearing 2002; Tangney et al. 2000). Each scenario is counterbalanced, and questions in each scenario are also counterbalanced. Questions are on a 7-point scale (1 = not likely, 7 = very likely).

General Instructions: A Study about Everyday Life Decisions

This task investigates behavior in everyday situations. Below are situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations.

As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described. We ask you to rate all responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.

Scenario #1. You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood him up.

Q: You would think: "I'm inconsiderate." [Global appraisal tendency]

Q: You'd think: I should have been more careful about my calendar. [Local appraisal tendency]

Scenario #2. At work, you wait until the last minute to plan a project, and it turns out badly.

Q: You would feel incompetent. [Global appraisal tendency]

Q: You would feel: "I mismanaged this project." [Local appraisal tendency]

Scenario #3. You have recently moved away from your family, and everyone has been very helpful. A few times you needed to borrow money, but you paid it back as soon as you could.

Q: You would feel immature. [Global appraisal tendency]

Q: You would feel I should have managed my finances better. [Local appraisal tendency]

Scenario #4. You are driving down the road, and you hit a small animal.

Q: You would think: "I'm terrible." [Global appraisal tendency]

Q: You'd feel bad you hadn't been more alert driving down the road. [Local appraisal tendency]

Scenario #5. You walk out of an exam thinking you did extremely well. Then you find out you did poorly.

Q: You would think: "I did not study harder." [Local appraisal tendency]

Q: You would feel stupid. [Global appraisal tendency]

Scenario #6. You are taking care of your friend's dog while they are on vacation and the dog runs away.

Q: You would think, "I am irresponsible and incompetent." [Global appraisal tendency]

Q: You would vow to be more careful about pets next time. [Local appraisal tendency]

Please use DOI when citing. Page numbers are not final.

APPENDIX C

TABLE C1

EMOTION MANIPULATION CHECKS IN STUDIES 1, 2, AND 3

	Guilt	Shame	Control
Study 1:			
Guilt score ^a ($\alpha = .82$)	5.14 ^c	3.29 ^d	2.89 ^e
Shame score ^b ($r = .87$)	2.88 ^f	5.33 ^g	2.52 ^h
^a : $F(2, 71) = 31.45, p < .001$; ^b : $F(2, 71) = 34.49, p < .001$. ^{c,d} : $p < .001$; ^{c,e} : $p < .001$; ^{d,e} : $p > .17$; ^{f,g} : $p < .001$; ^{g,h} : $p < .001$; ^{f,h} : $p > .33$.			
Study 2:			
Guilt score ^a ($\alpha = .87$)	4.82 ^c	3.52 ^d	3.26 ^e
Shame score ^b ($r = .70$)	3.34 ^f	4.98 ^g	3.20 ^h
^a : $F(2, 168) = 30.32, p < .001$; ^b : $F(2, 168) = 32.75, p < .001$. ^{c,d} : $p < .001$; ^{c,e} : $p < .001$; ^{d,e} : $p > .28$; ^{f,g} : $p < .001$; ^{g,h} : $p < .001$; ^{f,h} : $p > .58$.			
Study 3:			
Guilt score ^a ($\alpha = .81$)	5.11	3.32	
Shame score ^b ($r = .71$)	3.46	5.70	
^a : $F(1, 53) = 53.49, p < .001$; ^b : $F(1, 53) = 47.08, p < .001$.			

REFERENCES

- Agrawal, Nidhi, and Adam Duhachek (2010), "Emotional Compatibility and the Effectiveness of Anti-Drinking Messages: A Defensive Processing Perspective on Shame and Guilt," *Journal of Marketing Research*, 47 (2), 263–73.
- Agrawal, Nidhi, DaHee Han, and Adam Duhachek (2013), "Emotional Agency Appraisals Influence Responses to Preference Inconsistent Information," *Organizational Behavior and Human Decision Processes*, 120 (1), 87–97.
- Agrawal, Nidhi, and Echo Wen Wan (2009), "Regulating Risk or Risking Regulation? Construal Levels and Depletion Effects in the Processing of Health Messages," *Journal of Consumer Research*, 36 (3), 448–62.
- Bar-Anan, Y., Nira Liberman, and Yaacov Trope (2006), "The Association between Psychological Distance and Construal Level: Evidence from an Implicit Association Test," *Journal of Experimental Psychology: General*, 135 (4), 609–22.
- Blum, Alon (2008), "Shame and Guilt, Misconceptions and Controversies: A Critical Review of the Literature," *Traumatology*, 14 (3), 91–102.
- Brooks, Alison W., and Maurice E. Schweitzer (2011), "Can Nervous Nelly Negotiate? How Anxiety Causes Negotiators to Make Low First Offers, Exit Early, and Earn Less Profit," *Organizational Behavior and Human Decision Processes*, 115 (1), 43–54.
- Brown, Jonathon, and Bernard Weiner (1984), "Affective Consequences of Ability versus Effort Ascriptions: Controversies, Resolutions, and Quandaries," *Journal of Educational Psychology*, 76 (1), 146–58.
- Dahl, Darren W., Heather Honea, and Rajesh V. Manchanda (2003), "The Nature of Self-Reported Guilt in Consumption Contexts," *Marketing Letters*, 14 (30), 159–71.
- Dearing, Ronda L., Jeffrey Stuewig, and June Price Tangney (2005), "On the Importance of Distinguishing Shame from Guilt: Relations to Problematic Alcohol and Drug Use," *Addictive Behaviors*, 30 (7), 1392–404.
- Duhachek, Adam, Nidhi Agrawal, and DaHee Han (2012), "Guilt versus Shame: Coping, Fluency, and Framing in the Effectiveness of Responsible Drinking Messages," *Journal of Marketing Research*, 49 (6), 928–41.
- Förster, Jens, and Laura Dannenberg (2010), "GLOMOsys: A Systems Account of Global versus Local Processing," *Psychological Inquiry*, 21 (3), 175–97.
- Förster, Jens, Amina Özelsel, and Kai Epstude (2010), "How Love and Lust Change People's Perception of Relationship Partners," *Journal of Experimental Social Psychology*, 46 (2), 237–46.
- Friedman, Ronald S., Ayelet Fishbach, Jens Förster, and Lioba Werth (2003), "Attentional Priming Effects on Creativity," *Creativity Research Journal*, 15 (2), 277–86.
- Gilovich, Thomas, and Victoria H. Medvec (1995), "The Experience of Regret: What, When, and Why," *Psychological Review*, 102 (2), 379–95.
- Gino, Francesca, Alison W. Brooks, and Maurice E. Schweitzer (2012), "Anxiety, Advice, and the Ability to Discern: Feeling Anxious Motivates Individuals to Seek and Use Advice," *Journal of Personality and Social Psychology*, 102 (3), 497–512.
- Han, Seunghee, Jennifer S. Lerner, and Dacher Keltner (2007), "Feelings and Consumer Decision Making: The Appraisal-Tendency Framework," *Journal of Consumer Psychology*, 17 (3), 156–68.
- Jain, Shailendra P., and Durairaj Maheswaran (2000), "Motivated Reasoning: A Depth-of-Processing Perspective," *Journal of Consumer Research*, 26 (4), 358–71.
- Kim, Hakkyun, Akshay R. Rao, and Angela Y. Lee (2009), "It's Time to Vote: The Effect of Matching Message Orientation

Please use DOI when citing. Page numbers are not final.

- and Temporal Frame on Political Persuasion," *Journal of Consumer Research*, 35 (April), 877–89.
- Labroo, Aparna A., and Vanessa M. Patrick (2009), "Psychological Distancing: Why Happiness Helps You See the Big Picture," *Journal of Consumer Research*, 35 (February), 800–809.
- Lazarus, Richard S. (1991), "Progress on a Cognitive-Motivational-Relational Theory of Emotion," *American Psychologist*, 46 (8), 819–34.
- Leach, Frederick R., and Jason E. Plaks (2009), "Regret for Errors of Commission and Omission in the Distant Term versus Near Term: The Role of Level of Abstraction," *Personality and Social Psychology Bulletin*, 35 (2), 221–29.
- Lee, Angela Y., Punam A. Keller, and Brian Sternthal (2010), "Value from Regulatory Construal Fit: The Persuasive Impact of Fit between Consumer Goals and Message Concreteness," *Journal of Consumer Research*, 36 (5), 735–47.
- Leith, Karen P., and Roy F. Baumeister (1998), "Empathy, Shame, Guilt, and Narratives of Interpersonal Conflicts: Guilt-Prone People Are Better at Perspective Taking," *Journal of Personality*, 66 (1), 1–37.
- Lerner, Jennifer S., and Dacher Keltner (2000), "Beyond Valence: Toward a Model of Emotion-Specific Influences on Judgment and Choice," *Cognition and Emotion*, 14 (July), 473–93.
- (2001), "Fear, Anger, and Risk," *Journal of Personality and Social Psychology*, 81 (1), 146–59.
- Lerner, Jennifer S., Seunghye Han, and Dacher Keltner (2007), "Feelings and Consumer Decision Making: Extending the Appraisal-Tendency Framework," *Journal of Consumer Psychology*, 17 (3), 184–87.
- Lerner, Jennifer S., Deborah A. Small, and George Lowenstein (2004), "Heart Strings and Purse Strings: Carryover Effects of Emotions on Economic Decisions," *Psychological Science*, 15 (5), 337–41.
- Lewis, Helen B. (1971), *Shame and Guilt in Neurosis*, New York: International Universities Press.
- Lewis, Michael (1992), *Shame: The Exposed Self*, New York: Free Press.
- (2000), "The Emergence of Human Emotions," in *Handbook of Emotions*, Vol. 2, ed. Michael Lewis and Jeannette M. Haviland-Jones, and Lisa Feldman Barrett, New York: Guilford, 265–80.
- Lewis, Michael, Margaret W. Sullivan, Catherine Stranger, and Maya Weiss (1989), "Self-Development and Self-Conscious Emotions," *Child Development*, 60 (1), 146–56.
- Liberman, Nira, and Yaacov Trope (1998), "The Role of Feasibility and Desirability Considerations in Near and Distant Future Decision: A Test of Temporal Construal Theory," *Journal of Personality and Social Psychology*, 75 (July), 5–18.
- Martindale, Colin (1995), "Creativity and Connectionism," in *The Creative Cognition Approach*, ed. Steven M. Smith, Thomas B. Ward, and Ronald A. Finke, Cambridge, MA: MIT Press, 249–68.
- N'gbala, Ahogni, and Nyla R. Branscombe (1997), "When Does Action Elicit More Regret than Inaction and Is Counterfactual Mutation the Mediator of This Effect?" *Journal of Experimental Social Psychology*, 33 (3), 324–43.
- Nussbaum, Shiri, Yaacov Trope, and Nira Liberman (2003), "Creeping Dispositionism: The Temporal Dynamics of Behavior Prediction," *Journal of Personality and Social Psychology*, 84 (3), 485–97.
- Pyone, Jin Seok, and Alice M. Isen (2011), "Positive Affect, Intertemporal Choice, and Levels of Thinking: Increasing Consumers' Willingness to Wait," *Journal of Marketing Research*, 48 (3), 532–43.
- Raghunathan, Rajagopal, and Michel Tuan Pham (1999), "All Negative Moods Are Not Equal: Motivational Influences of Anxiety and Sadness on Decision Making," *Organizational Behavior and Human Decision Processes*, 79 (July), 56–77.
- Savitsky, Kenneth, Victoria H. Medvec, and Thomas Gilovich (1997), "Remembering and Regretting: The Zeigarnik Effect and the Cognitive Availability of Regrettable Actions and Inactions," *Personality and Social Psychology Bulletin*, 23 (3), 248–58.
- Semin, Gün R., and Klaus Fiedler (1988) "The Cognitive Functions of Linguistic Categories in Describing Persons: Social Cognition and Language," *Journal of Personality and Social Psychology*, 54 (4), 558–68.
- Smith, Craig A., and Phoebe C. Ellsworth (1985), "Patterns of Cognitive Appraisal in Emotion," *Journal of Personality and Social Psychology*, 48 (4), 813–38.
- Tangney, June P. (1995), "Recent Advances in the Empirical Study of Shame and Guilt," *American Behavioral Scientist*, 38 (8), 1132–45.
- Tangney, June P., Susan A. Burggraf, and Patricia E. Wagner (1995), "Shame-Proneness, Guilt-Proneness, and Psychological Symptoms," in *Self-Conscious Emotions: The Psychology of Shame, Guilt, Embarrassment, and Pride*, ed. June P. Tangney and Kurt W. Fischer, New York: Guilford, 343–67.
- Tangney, June P., and Ronda L. Dearing (2002), *Shame and Guilt*. New York: Guilford.
- Tangney, June P., Jeff Stuewig, and Debra J. Mashek (2007), "Moral Emotions and Moral Behavior," *Annual Review of Psychology*, 58, 345–72.
- Tangney, June P., Patricia E. Wagner, Carey Fletcher, and Richard Gramzow (1992), "Shamed into Anger? The Relation of Shame and Guilt to Anger and Self-Reported Aggression," *Journal of Personality and Social Psychology*, 62 (4), 669–75.
- Tangney, June P., Patricia E. Wagner, and Richard Gramzow (2000), *The Test of Self-Conscious Affect-3 (TOSCA-3)*, Fairfax, VA: George Mason University.
- Tangney, June P., Patricia E. Wagner, Deborah Hill-Barlow, and Donna Marschall (1996), "Relation of Shame and Guilt to Constructive versus Destructive Responses to Anger across the Lifespan," *Journal of Personality and Social Psychology*, 70 (4), 797–809.
- Tiedens, Larissa Z., and Susan Linton (2001), "Judgment under Emotional Certainty and Uncertainty: The Effects of Specific Emotions on Information Processing," *Journal of Personality and Social Psychology*, 81 (6), 973–88.
- Tracy, Jessica L., and Richard W. Robins (2002), "Poster presented at the 3rd Annual Meeting of the Society for Personality and Social Psychology," Savannah, GA.
- (2004), "Putting the Self into Self-Conscious Emotions: A Theoretical Model," *Psychological Inquiry*, 15 (2), 103–25.
- (2007), "The Psychological Structure of Pride: A Tale of Two Facets," *Journal of Personality and Social Psychology*, 92 (3), 506–25.
- Trope, Yaacov, and Nira Liberman (2000), "Temporal Construal and Time-Dependent Changes in Preference," *Journal of Personality and Social Psychology*, 79 (6), 876–89.
- (2003), "Temporal Construal," *Psychological Review*, 110 (July), 403–21.

Please use DOI when citing. Page numbers are not final.

- (2010), "Construal Level Theory of Psychological Distance," *Psychological Review*, 117 (2), 440–63.
- Trope, Yaacov, Nira Liberman, and Cheryl Wakslak (2007), "Construal Levels and Psychological Distance: Effects on Representation, Prediction, Evaluation," *Journal of Consumer Psychology*, 17 (2), 83–95.
- Wan, Echo W., and Nidhi Agrawal (2011), "Carryover Effects of Self-Control on Decision Making: A Construal-Level Perspective," *Journal of Consumer Research*, 38 (1), 199–214.
- Vallacher, Robin R., and Daniel M. Wegner (1989), "Levels of Personal Agency: Individual Variation in Action Identification," *Journal of Personality and Social Psychology*, 57 (October), 660–71.
- Van Vliet, K. Jessica (2009), "The Role of Attributions in the Process of Overcoming Shame: A Qualitative Analysis," *Psychology and Psychotherapy: Theory, Research, and Practice*, 82 (2), 137–52.
- Yan, Dengfeng, and Jaideep Sengupta (2011), "Effects of Construal Level on the Price-Quality Relationship," *Journal of Consumer Research*, 38 (1), 376–89.
- Zhang, Ying, Szu-chi Huang, and Susan Broniarczyk (2010), "Counteractive Construal in Consumer Goal Pursuit," *Journal of Consumer Research*, 37 (1), 129–42.
- Zhao, Xinshu, John G. Lynch Jr., and Qimei Chen (2010), "Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis," *Journal of Consumer Research*, 37 (August), 197–206.

Please use DOI when citing. Page numbers are not final.