

# Self-Referenced Fear and Guilt Appeals: The Moderating Role of Self-Construal

LAUREN G. BLOCK<sup>1</sup>  
Zicklin School of Business  
Baruch College

Results from 2 studies on advertising to reduce the incidence of drinking and driving show that the effect of self- vs. other-referencing on the persuasiveness of fear and guilt appeals is moderated by definitions of the self (independent vs. interdependent self-construals). For people who hold a predominantly independent self-construal, superiority of self- vs. other-referencing holds for guilt appeals, but the opposite is true for fear appeals. For people who hold a predominantly interdependent self-construal, other-referenced and self-referenced messages are equally recalled and equally favorable for both fear and guilt appeals.

Advertisers typically assume that the most persuasive advertising appeals are ones that are actively self-relevant and tap into one's elaborate self-schema. This is true, in general; self-referenced ads are more memorable and persuasive (Meyers-Levy & Peracchio, 1996). The assumption that self-referenced ads are more persuasive is also prevalent in appeals that are designed to evoke negative emotions, such as fear or guilt. *Fear appeals* are ads that evoke fear through descriptions of a negative consequence, while *guilt appeals* refer to messages that evoke guilt through attributions of responsibility for those negative consequences.

However, a growing literature on health persuasion suggests that people may activate a variety of defense mechanisms to protect themselves when they feel threatened by a message (Keller & Block, 1999; Liberman & Chaiken, 1992). For example, people might have arrested message processing (Block & Williams, 2002) or deny the relevance of the message (Keller, 1999). If this is the case, we might expect that self-referenced fear and guilt appeals might be less memorable and persuasive than other-referenced appeals.

Whether self-referenced threatening ads are more or less persuasive also may depend on one's independence versus interdependence regarding the psychological separation of the self and others (self-construal). Several recent studies have suggested that self-construal moderates message persuasion (Aaker, 2000;

<sup>1</sup>Correspondence concerning this article should be addressed to Lauren G. Block, Zicklin School of Business, Box B12-240, Baruch College, One Bernard Baruch Way, New York, NY 10010. E-mail: Lauren\_Block@baruch.cuny.edu

Williams & Aaker, 2002). Only one study specifically looked at the effect of self-construals on fear appeals (Murray-Johnson et al., 2001) and found that people from an individualistic culture (independents) have more favorable reactions to a fear appeal and greater intentions to engage in AIDS-protective behaviors than do people from a collectivistic culture (interdependents). There are far fewer studies of guilt than of fear in general, and none that specifically have focused on self-construals and message processing.

The current paper extends this research domain by examining the influence of self-construals on message processing for self- versus other-referenced fear and guilt appeals. Specifically, this research explores the still unresolved issues of (a) whether self-referencing maintains its advantage on memory and persuasion when the self is threatened (as is the case in fear appeals) and when the self is implicated as being responsible for the negative outcome (as is the case in guilt appeals); and (b) whether the persuasiveness of self- versus other-referenced fear and guilt appeals would be the same for people with dominant independent self-construals versus dominant interdependent self-construals.

These issues are explored in two studies on advertising to reduce the incidence of drinking and driving. The following section begins with a discussion of the influence of self-construal on message processing for self- versus other-referenced fear appeals. Study 2 continues by exploring the interaction of self-construals and referencing on a drinking-and-driving guilt appeal.

### Self-Referencing and Fear Appeals

A large literature on self-referencing suggests that information about the self is one of the most well-developed and richest networks in memory. Encoded information about oneself is highly elaborate, highly organized, and frequently accessed. Because of these unique properties, self-referenced information has superior memory and persuasion advantages over information that is not as highly elaborate or organized. This is labeled the *self-reference effect* (SRE).

The self-reference effect was originally documented in a study that compared responses to encoding tasks that differed in depth of processing (Rogers, Kuiper, & Kirker, 1977). Rogers et al. demonstrated, for the first time, superior recall for self-referenced encoding ("Does the word describe you?") over semantic ("Does the word mean the same as . . .?"), phonemic ("Does the word rhyme with . . .?"), and structural encoding ("Does the word have capital letters?"). Subsequent research confirmed the SRE with different tasks (e.g., imagery; Bower & Gilligan, 1979) and with different populations (e.g., children and adults; Pullyblank, Bisanz, Scott, & Champion, 1985; for a historical overview of the SRE, see Symons & Johnson, 1997).

In a meta-analysis of 129 papers on the SRE, Symons and Johnson (1997) concluded that the self-reference effect has prevailed in the majority of studies.

Despite the prevalence of the SRE across numerous domains and comparison tasks, researchers are also beginning to uncover conditions under which the SRE is weakened or reversed (Aaker & Williams, 1998; Burnkrant & Unnava, 1995; Meyers-Levy & Peracchio, 1996). In what is often cited as a notable exception to the SRE (Meyers-Levy & Peracchio, 1996; Symons & Johnson, 1997), Lord (1980) studied self- versus other-referencing under different modes of processing. In this study, Lord suggested that the SRE occurs for self-schemas because the self-schema is such an elaborate network compared to other-schemas. This was consistent with prior theorizing on the SRE. However, Lord continued that the self would not have superior mnemonic advantages for imagined representations of the self (vs. propositional representations of the self). In this case, the self-image is a less effective device than an other-image because of perceptual salience. Because you imagine the scene from your physical perspective (i.e., “looking out” through your own eyes), you become the nonsalient ground, while others become the salient figure in the imagined event. The more salient other-image would gain the memory and persuasion advantages typically seen by the self-schema. Indeed, the results of Lord’s (1980) experiments demonstrate that the SRE is reversed for tasks that require someone to imagine a hypothetical event or behavior occurring to them (for additional studies on the imagination hypothesis, also see Brown, Keenan, & Potts, 1986; Lord, 1987).

Lord’s (1980) study helped inform our theorizing on whether a self-referenced fear appeal promotes or undermines persuasion. Such an appeal works by making the viewer fearful of an imagined, hypothetical consequence (e.g., getting hurt in a drinking and driving accident). Therefore, we would expect a self-referenced fear appeal to be less memorable and less persuasive than an other-referenced fear appeal.

Additional support for this speculation is provided in a study by Sedikides and Green (2000) that demonstrated that the SRE is reversed when information is negative. Sedikides and Green provided subjects with negative self- or other-referenced information. The results showed more shallow processing and less recall for negative self-referent than other-referent material. Sedikides and Green concluded that subjects are motivated to protect the self against threat, regardless of how minimal or hypothetical the threat is. The more challenging or threatening the information, the more the information will be neglected.

### Self-Referencing and Self-Construal

*Self-construal* refers to one’s propensity to hold independent or interdependent views of the self. The independent definition of the self is characterized by the psychological tendency to separate the self from the social context and to disengage from others (Kitayama, Markus, & Matsumoto, 1995). Independents are motivated to promote self-goals, maintain thoughts and behaviors that foster the

separation of the self and others, and place individual needs above those of the group. By contrast, interdependents' thoughts, emotions, and behaviors are characterized by a sense of connectedness with others (Kitayama et al., 1995). The distinction between the self and the other is blurred, resulting in more of an *us* or *we* focus than an *I* focus. Interdependents tend to subordinate individual concerns to maximize group interests (Aaker & Williams, 1998). Some researchers have treated self-construal as a somewhat stable cultural characteristic whereby people in individualistic cultures (e.g., Western cultures) have dominant independent self-construals, and people in collectivistic cultures (e.g., Eastern cultures) have predominantly interdependent self-construals (Triandis, 1995). Other research has suggested that self-construal is more dynamic, where either independent or interdependent self-construals can be temporarily accessible to the same individual (Aaker & Lee, 2001).

Recent studies, using both the chronic cultural and the dynamic perspectives of independence versus interdependence, have demonstrated that self-construal influences message processing (Aaker, 2000; Murray-Johnson et al., 2001; Williams & Aaker, 2002). Aaker and Williams' (1998) paper on the persuasiveness of emotional appeals for people with independent versus interdependent self-construals is particularly helpful in informing the theory that self-construal may moderate the effect of self- versus other-referencing on fear appeals.

Aaker and Williams (1998) first distinguished two categories of emotions that differ in their primary point of focus: *ego-focused emotions* (e.g., pride, happiness, frustration) are associated with an internal individual state, while *other-focused emotions* (e.g., empathy, peacefulness, indebtedness) are associated with an external social context (for a review, see Triandis, 1994). In Aaker and Williams' study, the SRE was obtained for independents who viewed an ego-focused emotional appeal. For these independents, the self-referenced appeal led to more favorable brand attitudes than did the other-referenced appeal. The SRE was reversed for independents who viewed an other-focused emotional appeal; in this case, attitudes were more favorable for the other-referenced ad than for the self-referenced ad. For interdependents, the self-referenced and other-referenced ads were equally favorable across both types of emotions.

These results suggest that for people for whom the line between self and other is blurred (interdependents), self- versus other-referenced ads are equally persuasive. For people who hold a strong motivation to separate the self from the other (independents), self-referencing compared to other-referencing is either advantageous or disadvantageous depending on the emotion elicited by the communication. The following study tests the hypothesis that, for independents, self-referencing is disadvantageous when the message is a fear appeal (i.e., when fear is the emotion elicited by the message).

As noted earlier, both imagining oneself and receiving threatening information reduces the likelihood of the SRE (Lord, 1980; Sedikides & Green, 2000).

Since a fear appeal is a message that relies on the threat of an imagined adverse consequence to motivate a change in behavior, these studies suggest that self-referenced fear appeals would be less persuasive and less memorable than other-referenced fear appeals for people with an independent self-construal.

*Hypothesis 1a.* People with an independent self-construal will have higher perceived fear, greater recall, and more favorable attitudes toward the ad for other-referenced than for self-referenced fear appeals.

*Hypothesis 1b.* People with an interdependent self-construal will have equal perceived fear, recall, and attitudes toward the ad for other-referenced and self-referenced fear appeals.

So-called *fear appeals* are named because of the reaction they arouse from message recipients; the audience experiences a certain level of fear from receiving the message. The relationship between fear and persuasion still has not been defined unequivocally since Janis and Feshbach (1953) suggested a negative monotonic relationship in their classic paper, now over 50 years old. However, most studies support a positive monotonic relationship. Three independent meta-analyses demonstrated that higher levels of perceived fear generate greater persuasion (e.g., Boster & Mongeau, 1984; Mongeau, 1998; Sutton, 1982). The most recent meta-analysis confirmed earlier meta-analytic studies that higher levels of fear are more persuasive than are lower levels (Witte, 2000). Implicit in Hypotheses 1a, 1b, and Hypothesis 2 (which formally posits the mediating role of perceived fear) is that higher levels of fear facilitate persuasion.

*Hypothesis 2.* Perceived fear will mediate the relationship between self- versus other-referencing and attitudes toward the ad for people with an independent self-construal.

The persuasiveness of fear appeals has been shown to be greatest for those who feel most vulnerable to the negative consequences depicted in the message and those who perceive the message to be personally relevant (Block & Williams, 2002). Perceived vulnerability and personal relevance are related, but not necessarily equivalent constructs. A message can be personally relevant for those who are vulnerable and for those who are not. For example, a message on the perils of smoking may be relevant precisely because one is a smoker and thus is vulnerable to lung cancer. Alternately, the same message may be relevant for nonsmokers who have family members who smoke or who have been contemplating starting smoking. Although the literature has shown that levels of vulnerability and relevance should follow the same directional pattern as fear and

persuasion, the moderating effect of self-construal on vulnerability and relevance has never been tested. This relationship is tested in Study 1 and is hypothesized as follows:

*Hypothesis 3.* People with an independent self-construal will have higher perceived vulnerability and personal relevance for other-referenced than for self-referenced fear appeals. People with an interdependent self-construal will have equal perceived vulnerability and personal relevance for other-referenced and self-referenced fear appeals.

### Study 1

#### *Method*

The experiment was conducted as a  $2 \times 2$  (Reference: Self vs. Other  $\times$  Independent vs. Interdependent) between-subjects design. A total of 151 undergraduate students enrolled in a northeastern university in the United States participated in the experiment to fulfill course requirements. Participants were categorized into two ethnic groups based on their self-rated ethnicity. The independent group is comprised of 69 participants who indicated they were American on a nationality question. The remaining 82 students indicated their nationality as Asian and represent the interdependent group. This categorization of independence/interdependence based on self-rated ethnicity follows the method used by Aaker and Williams (1998).

Each participant received a one-page advertisement on drinking and driving that described how coordination deteriorates as drinking increases and that provided the recommendation to choose a designated driver. All participants received identical information, with the exception of the self- versus other-reference manipulation. Participants in the self-reference condition were told that they could get hurt in a drunk-driving accident. The remaining participants were given an other-reference ad in which friends, family, and neighbors could be the ones hurt in a drunk-driving accident. This manipulation is consistent with previous studies on fear appeals (Keller & Block, 1996) and with other-reference campaigns used by practitioners (Hinsberg, 1990).

Prior to the experiment, a pretest on the wording used in the ad was run on 25 students who did not take part in the main experiment. Respondents answered only one question for this pretest: "Please rate the extent to which drinking and driving hurts . . .," which was followed by a 7-point scale ranging from 1 (*yourself*) to 7 (*friends, family, and neighbors*). Results of this pretest confirmed that message recipients pay attention to and correctly interpret the referencing language used in the ad (self-referenced,  $M = 3.33$ ; other-referenced,  $M = 5.00$ ;  $F(1, 24) = 3.68, p < .05$ ).

Participants in the main experiment first read the ad and then completed the questionnaire. All measures were rated on a 7-point scale, unless otherwise noted. Respondents rated their agreement with seven attitude statements with the following endpoints: *bad/good*; *unfavorable/favorable*; *did not hold my interest/held my interest*; *information was worthless/information was valuable*; *not helpful/helpful*; *not compelling/compelling*; and *contained bad advice/contained good advice*. These seven statements were summed and averaged to provide an attitude toward the ad scale (Cronbach's  $\alpha = .77$ ).

Respondents next rated the extent to which the ad made them feel guilty, tense, scared, and afraid on a 7-point scale ranging from 1 (*not at all*) to 7 (*very strongly*). The three latter items (tense, scared, and afraid) were summed and averaged to provide the perceived fear index ( $\alpha = .80$ ). Personal vulnerability was measured by asking participants to rate the extent to which drunk-driving-related risks are something that could happen to them on a 7-point scale ranging from 1 (*something that cannot happen to me*) to 7 (*something that can happen to me*). Respondents rated the extent to which the ad was personally relevant on two items (*personally relevant/not personally relevant*; and *personally involving/not personally involving*) that were averaged to provide the personal relevance measure.

After respondents completed the measures, they were given an unaided recall task. A trained, independent coder who was blind to the experimental conditions allocated 1 point for each item correctly recalled. Erroneously recalled items (i.e., arguments not in the original message) were not counted; neither were expressions of affect or opinion (e.g., "boring"). Number of correctly recalled items ranged from a minimum of 0 items to a maximum of 11 items (e.g., "Ad showed coordination getting worse after each drink").

Finally, participants rated themselves on Singelis' (1994) 31-item self-construal scale. This scale was used to verify that the American participants hold a primarily independent view of the self and the Asian participants hold an interdependent self-construal (cf. Williams & Aaker, 2002).

### Results

Results of a manipulation check confirm that the use of American versus Asian participants corresponds to independent and interdependent self-construals, respectively. An independence–interdependence index was created by averaging the 31 items on Singelis' (1994) self-construal scale. American participants scored higher on independence ( $M = 0.43$ ) than did Asian participants ( $M = -0.02$ ),  $F(1, 150) = 4.92, p < .01$ .

*Attitude and recall.* The results confirm Hypothesis 1a and 1b. ANOVA indicates a significant reference by self-construal interaction on attitude toward the ad,  $F(1, 150) = 3.48, p < .05$ . For participants with an independent self-construal,

attitude toward the other-referenced fear appeal was more favorable ( $M = 5.20$ ) than toward the self-referenced appeal ( $M = 4.69$ ),  $F(1, 69) = 3.90$ ,  $p < .05$ . By contrast, attitude toward the other- compared to the self-referenced fear appeal was equally favorable ( $M = 4.96$  vs.  $4.81$ ;  $F < 1$ ) for interdependent participants. Table 1 presents means and standard deviations for all conditions. No other contrasts or main effects were significant ( $ps > .10$ ).

The results also confirm a significant reference by self-construal interaction,  $F(1, 150) = 3.29$ ,  $p < .05$ ; and a main effect of reference ( $M_{\text{self}} = 3.73$  vs.  $M_{\text{other}} = 4.33$ ),  $F(1, 150) = 3.26$ ,  $p < .05$ , on recall. As expected, independents recalled more items from the ad when exposed to the other-referenced ( $M = 4.72$ ) rather than the self-referenced fear appeal ( $M = 3.48$ ),  $F(1, 69) = 3.93$ ,  $p < .05$ . For interdependent participants, recall of the other- compared to the self-referenced fear appeal was equal ( $M = 3.90$  vs.  $3.90$ ),  $F < 1$  (Table 1). No other contrasts or main effects were significant ( $ps > .10$ ).

*Perceived fear.* The pattern of results obtained for attitude toward the ad and recall was replicated on evoked fear with a significant reference by self-construal interaction,  $F(1, 150) = 4.81$ ,  $p < .05$ . Independents were more fearful reading the other-referenced ad ( $M = 3.22$ ) than the self-referenced ad ( $M = 2.40$ ),  $F(1, 69) = 5.06$ ,  $p < .01$ . Self- versus other-referencing evoked equal fear for interdependent participants ( $M = 3.03$  vs.  $2.79$ ),  $F < 1$ . There were no main effects of referencing or self-construal ( $ps > .10$ ).

Tests of mediation confirm Hypothesis 2 that evoked fear mediates the relationship between referencing and attitude for independent participants, but not for interdependent participants. Baron and Kenny's (1986) procedure was used to test whether perceived fear mediates the effect of referencing on attitude. Baron and Kenny suggested three separate regressions: (a) effect of referencing on perceived fear ( $\beta = .83$ ),  $F(1, 69) = 5.06$ ,  $p < .01$ ; (b) effect of referencing on attitude ( $\beta = .51$ ),  $F(1, 69) = 3.90$ ,  $p < .05$ ; and (c) effect of referencing and perceived fear on attitude ( $\beta = .22$ ),  $F(1, 69) = 6.97$ ,  $p < .01$ , for fear, and  $p > .10$ , for referencing. Significant effects of referencing in the first two equations and a significant effect of perceived fear and a nonsignificant effect of referencing in the third equation indicate full mediation. As expected, perceived fear mediated the effect of referencing on attitude for independents, but not for interdependents ( $ps > .10$  on first two regressions, thus failing two criteria for mediation).

Note that perceived guilt was measured as an additional check that perceived fear as the predominant negative emotion generated by this appeal drives persuasion. The tests for mediation were replicated with perceived guilt, with results confirming that guilt does not mediate attitudes ( $ps > .10$ ). Additionally, ANOVA indicates no significant interaction or main effects of self-construal or referencing on perceived guilt ( $ps > .10$ ).

*Relevance and vulnerability.* Hypothesis 3 was supported. ANOVA indicates a significant reference by self-construal interaction on personal relevance,

Table 1  
*Means of Self-/Other-Referencing and Self-Constraint on Reactions to a Fear Appeal: Study 1*

|                         | Independents    |           |                  |           | Interdependents |           |                  |           |
|-------------------------|-----------------|-----------|------------------|-----------|-----------------|-----------|------------------|-----------|
|                         | Self-referenced |           | Other-referenced |           | Self-referenced |           | Other-referenced |           |
|                         | <i>M</i>        | <i>SD</i> | <i>M</i>         | <i>SD</i> | <i>M</i>        | <i>SD</i> | <i>M</i>         | <i>SD</i> |
| Attitude toward the ad  | 4.69            | 1.12      | 5.20             | 1.01      | 4.96            | 0.89      | 4.81             | 1.22      |
| Recall                  | 3.48            | 1.97      | 4.72             | 2.85      | 3.90            | 1.69      | 3.90             | 1.37      |
| Perceived fear          | 2.40            | 1.34      | 3.22             | 1.59      | 3.03            | 1.42      | 2.79             | 1.45      |
| Personal relevance      | 3.33            | 2.02      | 4.27             | 1.86      | 3.63            | 1.56      | 3.40             | 1.92      |
| Perceived vulnerability | 5.33            | 1.98      | 6.16             | 1.11      | 5.22            | 1.70      | 5.05             | 1.79      |

$F(1, 150) = 3.16, p < .05$ ; and vulnerability,  $F(1, 150) = 3.37, p < .05$ . Independents who read the other-referenced drinking and driving ad felt more vulnerable ( $M = 6.16$ ), and found the ad to be more personally relevant ( $M = 4.27$ ) than did independents who read the self-referenced ad: vulnerability,  $M = 5.33, F(1, 69) = 4.78, p < .05$ ; and personal relevance,  $M = 3.33, F(1, 69) = 3.93, p < .05$ . Interdependents felt equally vulnerable ( $M = 5.05$  vs.  $5.22, F < 1$ ) and found the other- versus self-referenced ads to be equally relevant ( $M = 3.40$  vs.  $3.63, F < 1$ ). A main effect of self-construal shows that, in general, independents felt more vulnerable ( $M = 5.75$ ) than did interdependents ( $M = 5.13$ ),  $F(1, 150) = 5.08, p < .05$ .

### *Discussion*

The results from Study 1 indicate that people with an independent self-construal have greater recall and more favorable attitudes toward other-referenced fear appeals than self-referenced fear appeals. For people with an interdependent self-construal, self-referenced and other-referenced fear appeals are equally favorable.

Consistent with prior studies, in Study 1, referencing was in relation to whom the threat of imagined consequences occurred to; in other words, the victim of the drunk-driving accident. Specifically, in the self-referenced condition, participants were told that they would be the victim, while in the other-referenced condition, participants were informed that their friends and family could be the victims of a drunk driver.

What would happen if the referencing was in relation not to the victim of the accident, but the person doing the drinking and driving? Prior studies of referencing or of fear appeals have not examined changing the focus of the ad from the victim to the driver causing the accident. In this case, fear might not be the primary emotion elicited by the ad. While fear still may be aroused, it is likely that emotions more specifically related to one's attribution of causality will predominate. A self-referenced driver ad requires the message recipient to imagine himself or herself taking responsibility for causing an accident. Guilt is a frequently elicited emotion when experiences are largely attributed to the self or when internal sanctions are activated (Wallbott & Scherer, 1995).

Kubany and Watson (2003) provided the first comprehensive conceptualization of guilt that includes the role of situational or contextual factors in guilt arousal. Kubany and Watson suggested that the amount of guilt a person will experience is a function of five factors: (a) unpleasant feelings associated with a negative outcome, (b) perceived responsibility for causing the negative outcome, (c) perceived insufficient justification for one's actions, (d) perceived violation of values, and (e) beliefs about whether the outcome was foreseeable or preventable. The first two factors—unpleasantness over a negative outcome and the

belief that one is at least partially responsible for the negative outcome—are necessary conditions for guilt arousal.

Recipients viewing a self-referenced guilt appeal are given information about an unpleasant, negative event and are told that they are responsible for the event's occurrence, thus satisfying the two necessary conditions for guilt arousal. An other-referenced guilt appeal may not arouse the same feelings of responsibility. I propose that self-referenced appeals arouse more guilt than do other-referenced messages; however, this effect is moderated by self-construal. For independents, who are predisposed to viewing the self as a separate and distinct entity, this effect should be more pronounced than for people with interdependent orientations. This self-referencing effect should be attenuated for interdependents, who see the self as less separated from others.

*Hypothesis 4.* For independents, perceived guilt will be greater for a self-referenced appeal than for an other-referenced appeal. This effect should be attenuated or eliminated for individuals with an interdependent self-construal.

Predicting the effect of guilt on persuasion and recall, however, is not as straightforward. Kubany and Watson (2003) specified two distinct paths that an individual can take to eliminate feelings of guilt: guilt reduction and guilt avoidance. To simply reduce guilt, individuals can engage in guilt-reducing behaviors (e.g., making amends to an injured party) or generate guilt-reducing cognitive beliefs. For example, an individual reading an ad on drinking and driving might renew the commitment never to drink and get behind the wheel of a car. If a guilt appeal leads to message recipients using guilt-reduction strategies, higher levels of perceived guilt facilitate persuasion. In this case, the self-referenced ad would be more persuasive and would generate higher recall for independents than the other-referenced ad.

The second path an individual can choose is guilt avoidance: engaging in active avoidance strategies that deny the guilt. Individuals may try consciously to avoid thinking about incidents that evoke guilt (Kubany & Watson, 2003). In this case, an individual might pay less attention to an ad that makes him or her feel guilty. If guilt appeals evoke guilt-avoidance strategies, then higher levels of perceived guilt undermine persuasion, and a self-referenced ad would be less persuasive.

Since there are no additional empirical studies to help guide a more specific prediction regarding whether guilt would facilitate or undermine persuasion for a drinking and driving ad, I leave this as exploratory, rather than positing a formal hypothesis. A guilt-reduction strategy would lead to the self-reference effect (self-referencing more persuasive than other-referencing) for independents; but a guilt-avoidance strategy would lead to the opposite effect (other-referencing

more persuasive than self-referencing). Since perceived guilt should not differ by referencing condition for interdependents, those interdependents who view a self-referenced guilt appeal should have equal persuasion and recall to those who view an other-referenced appeal. The prediction that perceived guilt mediates the relationship between self- versus other-referencing and attitudes toward the ad for independents holds, regardless of direction, and so is posited formally:

*Hypothesis 5.* Guilt will mediate the relationship between self versus other-referencing and attitudes toward the ad for individuals with an independent self-construal.

## Study 2

### *Method*

To fulfill partial course requirements, 60 undergraduate students participated in the experiment. Each participant received a one-page ad with identical facts about drinking and driving (e.g., loss of coordination) and the recommendation to choose a designated driver that was used in Study 1. This time, however, the person who was responsible for the potential accident (i.e., the person who drank and then drove) varied across the referencing conditions.

No distinction in referencing was made for the potential victims of the accident. In the self-referenced driver condition, participants received the ad with the following text:

The more you drink, the more coordination you lose. That's a fact, plain and simple. Still, you drink too much and then go out and expect to handle a car. When you drink too much, you can't handle a car. You can't even handle a pen. If you drink and drive, you risk losing everything.

In the other-referenced driver condition, the word "you" was replaced by "people" (e.g., "The more people drink, the more coordination they lose. . .").

Participants' orientation to the self was measured on Wang and Mowen's (1997) Self-Schema Separateness–Connectedness (SC) scale. The SC scale reflects the degree to which an individual's perception of others is distinct and separate from the self (independent) or is seen as an extension of the self (interdependent). The procedure outlined by Wang and Mowen was used to create an SC index, with higher numbers indicative of a separated schema (for detailed descriptions of the scale and the items measured, see Wang & Mowen, 1997; Wang, Bristol, Mowen, & Chakraborty, 2000). A median split on the SC scale was used to divide the students into two groups, one reflecting independence

( $M = 5.31$ ) and the other interdependence ( $M = 3.99$ ),  $F(1, 59) = 147.22$ ,  $p < .001$ .

After reading the one-page ad on drinking and driving, participants answered a series of questions. Two questions tested whether the self- versus other-referencing conditions were manipulated successfully. Participants were asked whether they thought of themselves as the driver of the car, which was rated on a 7-point scale ranging from 1 (*disagree*) to 7 (*agree*). They also used a 7-point scale ranging from 1 (*yourself*) to 7 (*other people*) to rate the extent to which the ad said the person drinking and driving was the participant.

Participants were instructed to rate the advertisement on five 7-point attitude scales with the following endpoints: *not persuasive/persuasive*; *not convincing/convincing*; *not informative/informative*; *not effective/effective*; and *difficult to comprehend/easy to comprehend*. These items were summed and averaged to provide an index of attitude toward the ad ( $\alpha = .82$ ).

As in Study 1, after respondents completed the attitude measures, they were asked to write down everything they could recall from the ad (unaided recall). A graduate student, who was blind to the experimental conditions, was trained to code the recall data. Again, 1 point was allocated for each correctly recalled item, while erroneously recalled items and expressions of affect or opinion were not counted. The number of correctly recalled items ranged from a minimum of 0 to a maximum of 9 items.

After responding to the recall task, participants indicated how guilty and how fearful they felt while reading the ad on a 7-point scale ranging from 1 (*not at all*) to 7 (*extremely*). Personal relevance was measured on two 7-point questions that were summed and averaged (*not relevant to me/relevant to me*; and *does not apply to me/applies to me*). Finally, respondents completed two perceived vulnerability measures on 7-point scales with the following endpoints: *did not make me feel susceptible/made me feel susceptible*; and *did not make me feel vulnerable/made me feel vulnerable*.

### Results

The manipulation of self- versus other-referencing for the driver of the car was successful. Participants in the self-referenced driver condition indicated that they thought of themselves as the driver of the car ( $M = 3.67$ ) more than did those in the other-referenced driver condition ( $M = 2.52$ ),  $F(1, 59) = 3.49$ ,  $p < .05$ . On the second question, a lower number indicates “yourself” as the driver; participants in the self-referenced condition had a lower rating on this question ( $M = 3.27$ ) than did those in the other-referenced driver condition ( $M = 5.60$ ),  $F(1, 59) = 15.03$ ,  $p < .001$ .

*Perceived guilt, attitude, and recall.* The results support Hypothesis 4. ANOVA confirms a self-construal by referencing interaction on perceived guilt,

$F(1, 58) = 2.93, p < .05$ . Independents felt more guilt reading the self-referenced driver ad ( $M = 2.81$ ) than the other-referenced driver ad ( $M = 1.46$ ),  $F(1, 58) = 6.35, p < .01$  (note that any variation in degrees of freedom represents missing data). Self-referenced and other-referenced driver ads evoked equal feelings of guilt for interdependent participants ( $M = 3.36$  vs.  $3.69, F < 1$ ). In addition, a significant main effect shows that interdependent participants felt more guilty ( $M = 3.53$ ) than did independent participants ( $M = 2.21$ ),  $F(1, 58) = 7.95, p < .01$ .

ANOVA reveals a significant self-construal by referencing interaction on attitude toward the ad,  $F(1, 58) = 4.10, p < .02$ ; and recall,  $F(1, 59) = 3.57, p < .03$ . The results support a guilt-reduction rather than a guilt-avoidance strategy. For independents, attitude and recall were higher in the self-referenced driver condition (attitude,  $M = 5.48$ ; recall,  $M = 5.19$ ) than in the other-referenced driver condition: attitude,  $M = 4.43, F(1, 58) = 3.09, p < .05$ ; and recall,  $M = 4.00, F(1, 59) = 2.88, p < .05$ . For interdependents, self- versus other-referenced driver conditions generated equal attitude ( $M = 4.89$  vs.  $5.40, p > .10$ ) and recall ( $M = 4.00$  vs.  $4.63, F < 1$ ). There were no main effects of either self-construal or referencing on attitude or recall ( $ps > .10$ ; see Table 2 for means and standard deviations).

Hypothesis 5 predicted that perceived guilt would mediate the relationship between self- versus other-referencing and attitude toward the ad for independent participants. Tests of mediation (Baron & Kenny, 1986) confirm this prediction. Regression analyses support a significant effect of referencing on perceived guilt ( $\beta = -1.35$ ),  $F(1, 28) = 6.25, p < .01$ ; and referencing on attitude ( $\beta = -1.20$ ),  $F(1, 28) = 3.96, p < .05$ . However, the effect of referencing becomes insignificant when perceived guilt is also regressed on attitude ( $\beta = 0.34$ ),  $F(1, 28) = 2.59, p < .10$  for guilt, and  $p > .10$  for referencing. None of the three regressions were significant for interdependents ( $ps > .10$ ). Confirming Hypothesis 5, perceived guilt fully mediated the effect of referencing on attitude toward the ad for people with a predominantly independent self-construal.

The same regression analyses were conducted to check that fear does not mediate persuasion for a guilt appeal. Again, all regressions were nonsignificant ( $ps > .10$ ). An ANOVA on perceived fear demonstrates that interdependents felt greater fear ( $M = 4.38$ ) than did independents ( $M = 2.59$ ),  $F(1, 59) = 13.43, p < .001$ . This finding will be discussed in the General Discussion.

*Perceived vulnerability and relevance.* As in Study 1, ANOVA indicates a significant reference by self-construal interaction on personal relevance,  $F(1, 59) = 6.11, p < .01$ ; and vulnerability,  $F(1, 59) = 5.46, p < .05$ . Independents who read the self-referenced drinking and driving ad felt more vulnerable ( $M = 4.56$ ) and found the ad to be more personally relevant ( $M = 4.31$ ) than did independents who read the other-referenced ad: vulnerability,  $M = 3.79, F(1, 29) = 4.78, p < .05$ ; and personal relevance,  $M = 2.96, F(1, 29) = 3.93, p < .05$ . Unexpectedly, the contrast between interdependents in the self- versus other-referenced condition was significant for vulnerability ( $M = 4.39$  vs.  $5.22$ ),  $F(1, 29) = 4.52, p < .05$ ; and

Table 2  
*Means of Self-/Other-Referencing and Self-Constraint on Reactions to a Guilt Appeal: Study 2*

|                         | Independents    |           |                  |           | Interdependents |           |                  |           |
|-------------------------|-----------------|-----------|------------------|-----------|-----------------|-----------|------------------|-----------|
|                         | Self-referenced |           | Other-referenced |           | Self-referenced |           | Other-referenced |           |
|                         | <i>M</i>        | <i>SD</i> | <i>M</i>         | <i>SD</i> | <i>M</i>        | <i>SD</i> | <i>M</i>         | <i>SD</i> |
| Attitude toward the ad  | 5.48            | 1.17      | 4.43             | 2.03      | 4.89            | 1.10      | 5.40             | 1.28      |
| Recall                  | 5.19            | 1.83      | 4.00             | 2.00      | 4.00            | 1.52      | 4.63             | 1.79      |
| Perceived guilt         | 2.81            | 1.80      | 1.46             | 0.78      | 3.36            | 2.31      | 3.69             | 2.15      |
| Personal relevance      | 4.31            | 2.13      | 2.96             | 1.88      | 4.39            | 1.63      | 5.50             | 1.97      |
| Perceived vulnerability | 4.56            | 1.49      | 3.79             | 1.60      | 4.39            | 1.06      | 5.22             | 1.06      |

marginally significant for personal relevance ( $M = 4.39$  vs.  $5.50$ ),  $F(1, 29) = 2.77$ ,  $p < .10$ . A main effect of self-construal shows that, in general, interdependents indicated marginally greater vulnerability ( $M = 4.83$ ) and greater personal relevance ( $M = 4.98$ ) than did independents: vulnerability,  $M = 4.20$ ,  $F(1, 59) = 3.23$ ,  $p < .10$ ; and personal relevance,  $M = 3.68$ ,  $F(1, 59) = 6.42$ ,  $p < .01$ .

### General Discussion

Results from two studies on drinking and driving demonstrated the moderating role of self-construal on the effect of self- and other-referenced fear and guilt appeals. In the first study on fear appeals, referencing was manipulated via whether the self or other was the victim of a drinking and driving accident. Results indicate that the self-reference effect was reversed when people with a predominantly independent view of self processed a fear appeal. Specifically, independents had greater recall and more favorable attitudes toward other-referenced fear appeals than toward self-referenced fear appeals. The SRE was neither reversed nor confirmed for interdependents. For people who hold less of a distinction between self and others, self-referenced fear appeals and other-referenced fear appeals were equally favorable.

This study was followed by a second experiment that manipulated referencing via whether the self or other was the driver of the car. In this way, attributions of causality to the self versus other generate different levels of perceived guilt. For these guilt appeals, the SRE was obtained when independents processed the message: The self-referenced message led to more favorable attitudes and greater recall than did the other-referenced guilt appeal. Thus, while perceived fear led to a reversal of the SRE (superiority of other over self), perceived guilt led to confirmation of the SRE (superiority of the self). In both Study 1 (fear) and Study 2 (guilt), attitude and recall were equal for interdependents, regardless of referencing condition.

An incidental finding in Study 2 was that interdependent participants felt guiltier, more fearful, and more vulnerable; and felt that the ad was more relevant than did their independent peers. In Study 1, there were no main effects except for vulnerability, which showed the opposite effect. Based on this, one can speculate that perhaps there is something about the nature of a guilt appeal versus a fear appeal that accounts for these results. In a guilt appeal, one's personal accountability or responsibility is the salient feature. Since interdependents feel a greater sense of connection to others, an ad that makes their own personal accountability toward others more salient (regardless of referencing) might arouse an elevated response, compared to independents.

Results of mediation analyses confirm that perceived fear and guilt fully mediated the effect of referencing on persuasion for independents viewing the fear and guilt messages, respectively. There have been relatively few studies on guilt

relative to the larger work on emotions, and even fewer on the processing of guilt appeals. The finding that higher levels of guilt led to greater persuasion in a guilt appeal is an important building block for future research on message persuasion.

By contrast, there have been many prior studies on fear appeals. The role of fear confirmed in Study 1 is consistent with the body of academic work on fear and persuasion that supports a positive monotonic relationship between these variables. It is interesting to note that the means of both perceived fear and perceived guilt in both studies fell below the midpoint on a 7-point scale (for all but 1 of 16 cells), indicating that the drinking and driving ads generated a relatively low level of fear and guilt in the absolute sense.

Ratings of perceived fear below the scale midpoint are also consistent with the majority of studies of fear appeals. Researchers have come to view this almost as the “nature of the beast”; that is, a necessary consequence of working in this area. In his meta-analysis of fear appeals, Mongeau (1998) suggested that obtaining high absolute levels of fear is simply beyond researchers’ ethical reach. Proponents of the curvilinear effect of fear have suggested that the lack of empirical support for this model stems from the lack of sufficiently high levels of fear, again citing the ethical constraint placed on researchers in achieving such high levels (Mongeau, 1998).

There are, of course, many naturally occurring fear-raising scenarios that do generate high fear; for example, the fear you might feel from watching a horror movie where the direction and music methodically and deliberately scare you out of your wits; or the fear you would feel walking alone down a deserted dark alley. Many researchers have pointed out the distinctions between these different types of fear-raising scenarios: physiological fear versus psychological fear (Witte, 1992); threat versus fear (LaTour & Rotfeld, 1997); and tension versus energy arousal (LaTour & Rotfeld, 1997).

Interestingly, no one has explored whether respondents’ low ratings of perceived fear in a fear-appeal study may spring, in part, from an implicit comparison of participants’ current task to other fear-inducing experiences with which they are familiar. Just as students implicitly compare courses relative to each other when completing end-of-semester evaluations, it is plausible that indicating perceived fear on a rating scale invokes comparison to other fearful events. If this is the case, we may be able to solve the dilemma of low fear ratings in the laboratory by employing more discerning and sophisticated questions in our survey instruments.

In Study 1, independence–interdependence is treated as a chronic difference in self-construal across cultures and was measured using nationality as a proxy. It has been suggested that individuals hold both independent and interdependent self-construals that coexist simultaneously (Aaker & Lee 2001; Mandel, 2003). Therefore, in Study 2, independent and interdependent self-construal was measured as an individual predisposition, regardless of nationality. Interestingly,

recent studies have begun to demonstrate that one or the other self-construal can be activated temporarily within an individual via priming techniques (Aaker & Lee, 2001; Mandel, 2003). One direction for future research might be to replicate these studies with a manipulated, rather than measured self-construal construct.

The fear and guilt appeals used in these studies discussed hypothetical events that potentially could occur at some point in the future. Krishnamurthy and Sujana (1999) studied self-referencing for future events (anticipation) compared to past events (retrospection). They found that high contextual information in the ad (e.g., peripheral details) reduced ad effectiveness under retrospective self-referencing, but increased ad effectiveness under anticipatory self-referencing. An extension of the current study might vary contextual information for anticipatory fear or guilt appeals. More interesting, however, would be to examine whether fear and guilt appeals are ever retrospective; and if so, to examine the interaction of referencing and retrospective framing.

#### References

- Aaker, J. L. (2000). Accessibility or diagnosticity? Disentangling the influence of culture on persuasion processes and attitudes. *Journal of Consumer Research*, 26, 340-357.
- Aaker, J. L., & Lee, A. (2001). "I" seek pleasures and "we" avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28, 33-49.
- Aaker, J. L., & Williams, P. (1998). Empathy versus pride: The influence of emotional appeals across cultures. *Journal of Consumer Research*, 25, 241-261.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Block, L. G., & Williams, P. (2002). Undoing the effects of seizing and freezing: Decreasing defensive processing of personally relevant messages. *Journal of Applied Social Psychology*, 32, 803-833.
- Boster, F. J., & Mongeau, P. (1984). Fear-arousing persuasive messages. *Communication Yearbook*, 8, 330-375.
- Bower, G. H., & Gilligan, S. G. (1979). Remembering information related to one's self. *Journal of Research in Personality*, 13, 420-432.
- Brown, P., Keenan, J. M., & Potts, G. R. (1986). The self-reference effect with imagery encoding. *Journal of Personality and Social Psychology*, 51, 897-906.
- Burnkrant, R. E., & Unnava, H. R. (1995). Effects of self-referencing on persuasion. *Journal of Consumer Research*, 22, 17-26.
- Hinsberg, P. (1990, April 16). Anti-smoking ads trash message and messenger. *Adweek*, p. 1.

- Janis, I. L., & Feshbach, S. (1953). Effects of fear-arousing communications. *Journal of Abnormal and Social Psychology, 48*, 78-92.
- Keller, P. A. (1999). Converting the unconverted: The effect of inclination and opportunity to discount health-related fear appeals. *Journal of Applied Psychology, 84*, 403-415.
- Keller, P. A., & Block, L. G. (1996). Increasing the persuasiveness of fear appeals: The effect of arousal and elaboration. *Journal of Consumer Research, 22*, 448-459.
- Keller, P. A., & Block, L. G. (1999). The effect of affect-based dissonance versus cognition-based dissonance on motivated reasoning and health-related persuasion. *Journal of Experimental Psychology: Applied, 5*, 302-313.
- Kitayama, S., Markus, H. R., & Matsumoto, H. (1995). Culture, self, and emotion: A cultural perspective to "self-conscious" emotions. In J. P. Tangney & K. W. Fisher (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (pp. 439-464). New York, NY: Guilford.
- Krishnamurthy, P., & Sujun, M. (1999). Retrospection versus anticipation: The role of the ad under retrospective and anticipatory self-referencing. *Journal of Consumer Research, 26*, 55-69.
- Kubany, E. S., & Watson, S. B. (2003). Guilt: Elaboration of a multidimensional model. *Psychological Record, 53*, 51-90.
- LaTour, M., & Rotfeld, H. J. (1997). There are threats and (maybe) fear-caused arousal: Theory and confusions of appeals to fear and fear arousal itself. *Journal of Advertising, 26*(3), 45-60.
- Liberman, A., & Chaiken, S. (1992). Defensive processing of personally relevant health messages. *Personality and Social Psychology Bulletin, 18*, 669-679.
- Lord, C. G. (1980). Schemes and images as memory aids: Two modes of processing social information. *Journal of Personality and Social Psychology, 38*, 257-269.
- Lord, C. G. (1987). Imaging self and others: Reply to Brown, Keenan, and Potts. *Journal of Personality and Social Psychology, 53*, 445-450.
- Mandel, N. (2003). Shifting selves and decision making: The effects of self-construal priming on consumer risk-taking. *Journal of Consumer Research, 30*, 30-40.
- Meyers-Levy, J., & Peracchio, L. A. (1996). Moderators of the impact of self-reference on persuasion. *Journal of Consumer Research, 22*, 408-423.
- Mongeau, P. (1998). Another look at fear-arousing persuasive appeals. In M. Allen & R. W. Preiss (Eds.), *Persuasion: Advances through meta-analysis* (pp. 53-68). Cresskill, NJ: Hampton.
- Murray-Johnson, L., Witte, K., Liu, W., Hubbell, A. P., Sampson, J., & Morrison, K. (2001). Addressing cultural orientations in fear appeals: Promoting AIDS-protective behaviors among Mexican immigrant and African American

- adolescents and American and Taiwanese college students. *Journal of Health Communication*, 6, 335-358.
- Pullyblank, J., Bisanz, J., Scott, C., & Champion, M. A. (1985). Developmental invariance in the effects of functional self-knowledge on memory. *Child Development*, 56, 1447-1454.
- Rogers, T. B., Kuiper, N. A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology*, 35, 677-688.
- Sedikides, C., & Green, J. D. (2000). On the self-protective nature of inconsistency–negativity management: Using the person memory paradigm to examine self-referent memory. *Journal of Personality and Social Psychology*, 79, 906-922.
- Singelis, T. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20, 580-591.
- Sutton, S. R. (1982). Fear-arousing communications: A critical examination of theory and research. In J. R. Eiser (Ed.), *Social psychology and behavioral medicine* (pp. 303-337). New York, NY: John Wiley & Sons.
- Symons, C., & Johnson, B. T. (1997). The self-reference effect in memory: A meta-analysis. *Psychological Bulletin*, 121, 371-394.
- Triandis, H. C. (1994). Major cultural syndromes and emotion. In S. Kitayama & H. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influence* (pp. 285-308). Washington, DC: American Psychological Association.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview.
- Wallbott, H. G., & Scherer, K. R. (1995). Cultural determinants in experiencing shame and guilt. In J. P. Tangney & K. W. Fisher (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (pp. 465-487). New York, NY: Guilford.
- Wang, C. L., Bristol, T., Mowen, J. C., & Chakraborty, G. (2000). Alternative modes of self-construal: Dimensions of connectedness–separateness and advertising appeals to the cultural and gender-specific self. *Journal of Consumer Psychology*, 9, 107-115.
- Wang, C. L., & Mowen, J. C. (1997). The separateness–connectedness self-schema: Scale development and application to message construction. *Psychology and Marketing*, 14, 185-207.
- Williams, P., & Aaker, J. L. (2002). Can mixed emotions peacefully coexist? *Journal of Consumer Research*, 28, 636-649.
- Witte, K. (1992). Putting the fear back into fear appeals: The extended parallel process model. *Communication Monographs*, 59, 329-349.
- Witte, K. (2000). A meta-analysis of fear appeals: Implications for effective public health campaigns. *Health Education and Behavior*, 27, 591-615.