The Role of Omission Neglect in Response to Non-Gains and Non-Losses in Gasoline Price Fluctuations

Jennifer Bechkoff
Department of Marketing and Decision Sciences
San Jose State University

Vijaykumar Krishnan and Mihai Niculescu
Department of Marketing
University of Cincinnati

Mary Lou Kohne
Department of Marketing
Ohio University

Robert W. Palmatier
Department of Marketing
University of Washington

Frank R. Kardes
Department of Marketing
University of Cincinnati

Research on omission neglect has shown that people are insensitive to many different types of missing, unmentioned, or unknown information. However, prior research has not examined the role of omission neglect in non-gain and non-loss framing. The present research shows that gain/loss framing effects are greater than non-gain/non-loss framing effects on judgments of the ease with which various scenarios can be imagined, judgments of believability, attributions to price gouging, and attributions to inflation. The results also show that negative outcomes are more influential than are positive outcomes in judgments of imaginability, believability, and fairness, and in attribution judgments. Considered together, the results suggest that omission neglect plays an important role in insensitivity to non-gains and non-losses.

Losses are experienced more intensely than are gains (Kahneman & Tversky, 1979; Tversky & Kahneman, 1991, 1992), and loss frames are often more persuasive than are gain frames (e.g., Block & Keller, 1995; Levin, Schneider, & Gaeth, 1998; Shiv, Britton, & Payne, 1997, 2004). These effects are usually attributed to loss aversion (i.e., losses are weighted more heavily than gains). However, less is known about framing effects involving non-losses, or the omission or absence of a loss; and non-gains, or the omission or absence of a gain (Liberman, Idson, & Higgins, 2005). The goal of the present research is to determine if non-loss and non-gain framing produces effects similar to those observed in studies of omission neglect; or insensitivity to

1Correspondence concerning this article should be addressed to Jennifer “Kat” Bechkoff, San Jose State University, College of Business, Department of Marketing and Decision Sciences, One Washington Square, San Jose, CA 95192-0065. E-mail: Jennifer.Bechkoff@sjsu.edu

© 2009 Copyright the Authors
Journal compilation © 2009 Wiley Periodicals, Inc.
missing information in multiattribute judgment (Sanbonmatsu, Kardes, & Herr, 1992; Sanbonmatsu, Kardes, Houghton, Ho, & Posavac, 2003; Sanbonmatsu, Kardes, Posavac, & Houghton, 1997; Sanbonmatsu, Kardes, & Sansone, 1991).

People often use whatever information is readily available, and they neglect missing, unmentioned, or unknown information (Sanbonmatsu et al., 1991, 1992, 1997, 2003). As a result, people often form extreme and confidently held judgments on the basis of weak or limited evidence. Sensitivity to omissions increases and more moderate judgments are formed, however, when consumers are warned that information is missing (Sanbonmatsu et al., 1992), when consumers are spontaneously sensitive to missing information as a result of high levels of prior knowledge (Sanbonmatsu et al., 1991, 1992), or when comparison processes highlight the fact that some products are described by a relatively large amount of information and others by a small amount (Sanbonmatsu et al., 1997, 2003).

Although omissions are typically not salient, variables that increase attention to omissions help consumers to recognize that their judgments are based on weak or limited evidence, and this encourages inferential correction toward a more moderate position. When information is weak or limited, moderate (vs. extreme) judgments are more accurate (Griffin & Tversky, 1992), are more readily updated as new information becomes available (Cialdini, Levy, Herman, & Evenbeck, 1973), and are more justifiable to oneself and to others (Lerner & Tetlock, 1999; Shafir, Simonson, & Tversky, 1993).

Because non-losses and non-gains involve the absence of a loss and the absence of a gain, respectively, and because consumers are less sensitive to the absence of a cue than to the presence of a cue, it is predicted that framing effects will be more pronounced for losses versus gains than for non-losses versus non-gains. It is also predicted that negative scenarios will be more believable than positive scenarios, in the context of fluctuating gas prices.

Again, however, framing effects should be more pronounced for losses versus gains than for non-losses versus non-gains, even in this context. Framing and omission neglect should also influence attributions for change. Framing effects on attributions for change should be more pronounced for losses versus gains than for non-losses versus non-gains. Prior research has not examined the role of omission neglect in attributions for change. This is a potentially important gap in knowledge because attributions exert an important influence on consumer satisfaction (Folkes, 1988).

Liberman et al. (2005) asked participants to imagine that they were thinking about buying a particular model of laptop computer. In the gain condition, they were told that this model is available for $200 below the list price. In the loss condition, they were told that this model is available for $200
above the list price. In the non-gain condition, participants were told that this model was available for $200 below the list price, but is now available at the list price. In the non-loss condition, participants were told that this model was available for $200 above the list price, but is now available at the list price. Although the financial outcomes were identical in gain and non-loss conditions (+$200), gain/loss framing effects were more pronounced than non-gain/non-loss framing effects. These results suggest that non-gains and non-losses are experienced less intensely than are gains and losses.

In the present research, participants were asked to imagine how they would feel if gasoline prices changed for various reasons. In the gain condition, they were told that gas prices decreased by $1.10 per gallon. In the loss condition, they were told that gas prices increased by $1.10 per gallon. In the non-gain condition, participants were told that “The government stopped subsidizing gasoline prices,” and this caused gas prices to increase by $1.10 per gallon. In the non-loss condition, they were told that “The government eliminated a gas tax,” and this caused gas prices to decrease by $1.10 per gallon. Although the financial outcomes were identical in the gain and non-loss conditions (+$1.10) and in the loss and non-gain conditions (−$1.10), it is predicted that gain/loss framing effects will be more pronounced than will non-gain/non-loss framing effects. That is, non-gains and non-losses will be more difficult to imagine and less believable than will gains and losses. Furthermore, less extreme attributions for price fluctuations will be formed for non-gains and non-losses than for gains and losses.

We included the need for cognitive closure (Kruglanski & Webster, 1996) as a moderator variable. Need for cognitive closure refers to a preference or desire to form an opinion or to reach a decision as quickly as possible. This involves seizing on information that is easy to process, and freezing or not changing one’s mind once an opinion has been formed. This also entails neglecting information that is difficult to process because it is absent, ambiguous, complex, or confusing. However, neglecting important information often leads to less accurate judgments or to less satisfying decisions.

Need for cognitive closure can be manipulated experimentally by varying information-processing difficulty (e.g., time pressure, ambiguity, fatigue) or unpleasantness (e.g., leading participants to expect to perform a more pleasant task after completing an initial task). Need for cognitive closure can also be measured as an individual-difference variable (Webster & Kruglanski, 1994). Converging effects on judgment and decision making are observed, regardless of how need for cognitive closure is manipulated or if need for cognitive closure is measured (Kruglanski & Webster, 1996). It is predicted that framing effects will be more pronounced for individuals who are high (vs. low) in need for cognitive closure because of their tendency to seize on readily available frames.
Method

Participants and Design

A total of 236 students (96 women, 140 men) recruited from a large midwestern university participated in the study in exchange for extra credit in an undergraduate marketing course. There were 6 records excluded as a result of missing data in the dependent variables of interest. Participants were told they would be taking part in a study about gasoline price perception and were asked to complete a questionnaire about how they felt regarding specific, hypothetical occurrences.

Participants were randomly assigned to one of four conditions (gain, loss, non-gain, or non-loss), and all of the participants completed the Need for Cognitive Closure scale (Webster & Kruglanski, 1994). A median split was performed on their scores from the Need for Cognitive Closure scale, whereby participants were blocked into high or low conditions. Hence, a 2 (Present: present vs. absent) × 2 (Frame: gain-related vs. loss-related) × 2 (Need for Cognitive Closure: low vs. high) between-subjects factorial design was used.

Participants read one of four scenarios regarding gasoline prices. The present treatment contained the gain frame stating, “Imagine that, due to recent events, gas prices decreased by $1.10 per gallon”; or the loss frame stating, “Imagine that, due to recent events, gas prices increased by $1.10 per gallon.” The absent treatment contained the non-gain frame stating, “Imagine that, due to recent events, the government has stopped subsidizing gasoline prices, causing gas prices to increase by $1.10 per gallon”; or the non-loss frame stating, “Imagine that, due to recent events, the government has eliminated a gas tax, causing gas prices to decrease by $1.10 per gallon.”

The Need for Cognitive Closure scale (Webster & Kruglanski, 1994) consists of 42 statements that are judged on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree; $\alpha = .84$). Sample items include “I enjoy the uncertainty of going into a new situation without knowing what might happen” (reverse-scored), “I hate to change my plans at the last minute,” and “I don’t like situations that are uncertain.” An index was created by summing the scores on the items. Participants were blocked into groups high or low in need for cognitive closure based on a median split performed on the need for cognitive closure scores.

Perceptions of imaginability, believability, unfairness judgments, attributions (pertaining to price gouging; changes in supply and demand; and inflation) were rated on 6-point scales ranging from 1 (strongly disagree) to 6 (strongly agree). Higher scores indicate greater believability, greater
perceived unfairness, and greater attributions for price gouging, changes in supply and demand, and inflation, respectively.

**Results**

The effects of present versus absent framing and gain-related versus loss-related framing on judgments of imaginability, believability, unfairness, and attributions for change are presented in Table 1. A 2 (Present: present vs. absent) × 2 (Frame: gain-related vs. loss-related) × 2 (Need for Cognitive Closure: low vs. high) ANOVA performed on imaginability judgments reveals a significant main effect for present/absent, $F(1, 222) = 4.53$, $p < .05$; a significant main effect for frame (gain-related/loss-related), $F(1, 222) = 7.39$, $p < .01$; and an interaction of present/absent by frame, $F(1, 222) = 66.97$, $p < .001$; but no other significant effects. Follow-up tests show that losses were easier to imagine than were gains ($Ms = 4.84$ vs. $2.79$), $t(111) = 7.86$, $p < .001$; and non-losses were less easy to imagine than were non-gains ($Ms = 2.90$ vs. $3.93$), $t(111) = -3.91$, $p < .001$. Furthermore, the gain/loss framing effect was greater than the non-gain/non-loss framing effect. This pattern of results suggests that negative outcomes are easier to imagine than are positive outcomes, in the context of fluctuating gasoline prices. More
important, this pattern suggests that gain/loss framing effects are more pronounced than are non-gain/non-loss framing effects, consistent with the omission neglect perspective.

A 2 (Present: present vs. absent) × 2 (Frame: gain-related vs. loss-related) × 2 (Need for Cognitive Closure: low vs. high) ANOVA performed on believability judgments reveals a significant main effect for present/absent, \( F(1, 222) = 5.24, p < .03 \); a significant main effect for frame (gain-related/loss-related), \( F(1, 222) = 10.61, p < .01 \); and an interaction of present/absent by frame, \( F(1, 222) = 73.91, p < .001 \); but no other significant effects. Follow-up tests show that losses were more believable than were gains (\( M_s = 4.68 \) vs. 2.39), \( t(111) = 8.78, p < .001 \); and non-losses were less believable than were non-gains (\( M_s = 2.58 \) vs. 3.62), \( t(115) = -3.70, p < .001 \). Furthermore, the gain/loss effect was greater than was the non-gain/non-loss effect. This pattern of results suggests that the presence of gains and losses is more believable than is the absence of gains and losses, consistent with the omission neglect perspective.

A 2 (Present: present vs. absent) × 2 (Frame: gain-related vs. loss-related) × 2 (Need for Cognitive Closure: low vs. high) ANOVA performed on unfairness judgments reveals a significant interaction of present/absent by frame (gain-related/loss-related), \( F(1, 222) = 160.39, p < .001 \); but no other significant effects. Follow-up tests show that losses were considered more unfair than were gains (\( M_s = 4.32 \) vs. 2.18), \( t(107) = 8.47, p < .001 \); and non-losses were considered less unfair than were non-gains (\( M_s = 2.22 \) vs. 4.62), \( t(115) = -9.48, p < .001 \). This pattern of results suggests that negative outcomes are more influential than are positive outcomes, in the context of fluctuating gasoline prices.

A 2 (Present: present vs. absent) × 2 (Frame: gain-related vs. loss-related) × 2 (Need for Cognitive Closure: low vs. high) ANOVA performed on attributions to price gouging reveals a significant main effect for gain/loss, \( F(1, 222) = 5.00, p < .03 \); and a significant interaction of present/absent by frame (gain-related/loss-related), \( F(1, 222) = 15.60, p < .001 \); but no other significant effects. Follow-up tests show that losses were attributed more to price gouging than were gains (\( M_s = 4.11 \) vs. 2.96), \( t(108) = 4.13, p < .001 \); and non-losses were not significantly different than were non-gains for price gouging (\( M_s = 3.39 \) vs. 3.72), \( t(115) = -1.29, ns \). Furthermore, the gain/loss effect was greater than was the non-gain/non-loss effect. This pattern of results suggests that the presence of gains and losses has more impact on price gouging attributions, relative to the absence of gains and losses, consistent with the omission neglect perspective.

A 2 (Present: present vs. absent) × 2 (Frame: gain-related vs. loss-related) × 2 (Need for Cognitive Closure: low vs. high) ANOVA performed on attributions to supply and demand reveals a gain-related/loss-related
main effect, $F(1, 222) = 4.28, p < .05$; and a Frame (gain-related/loss-related) $\times$ Need for Cognitive Closure interaction, $F(1, 222) = 5.74, p < .02$; but no other significant effects. Follow-up tests show that there was a significant gain/loss effect for participants with high need for cognitive closure ($M_s = 3.24$ vs. 4.11), $t(114) = -3.28, p < .01$; but not for those with low need for cognitive closure ($M_s = 3.64$ vs. 3.57; $t < 1$).

A 2 (Present: present vs. absent) $\times$ 2 (Frame: gain-related vs. loss-related) $\times$ 2 (Need for Cognitive Closure: low vs. high) ANOVA performed on attributions to inflation reveals a significant interaction of present/absent by frame (gain-related/loss-related), $F(1, 222) = 8.70, p < .01$; but no other significant effects. Follow-up tests show that losses were attributed more to inflation than were gains ($M_s = 3.02$ vs. 2.33), $t(111) = 2.56, p < .02$; and that non-losses were not significantly different from non-gains ($M_s = 2.64$ vs. 3.02), $t(107) = -1.58, ns$. This pattern of results suggests that the presence of gains and losses had more impact on inflation attributions, relative to the absence of gains and losses, consistent with the omission neglect perspective.

Discussion

The present research shows that gain/loss framing effects are greater than are non-gain/non-loss framing effects on judgments of the ease with which various scenarios can be imagined, judgments of believability, attributions to price gouging, and attributions to inflation. The results also show that negative outcomes are more influential than are positive outcomes in judgments of imaginability, believability, and fairness, and in attribution judgments. Considered together, the results suggest that omission neglect plays an important role in insensitivity to non-gains and non-losses in the context of fluctuating gasoline prices.

For many different types of judgments, the absence of a loss and the absence of a gain are experienced much less intensely than are the presence of a loss and the presence of a gain. This asymmetry is inconsistent with the implications of loss aversion, but is consistent with the implications of omission neglect. Missing or absent information is difficult to process and is, therefore, less influential relative to presented information. This pattern was observed in judgments of frame imaginability and frame believability, and in attributions to price gouging and to inflation. For each of these judgments, gain/loss framing had more impact than did non-gain/non-loss framing.

Loss aversion implies that losses are weighted more heavily than are equivalent gains, and this effect has been replicated widely (e.g., Block & Keller, 1995; Levin et al., 1998; Shiv et al., 1997, 2004). However, loss aversion also implies that non-losses should be weighted more heavily than
equivalent non-gains, but no support for this effect was found in the present research or in the research of Liberman et al. (2005).

In the present research, non-loss/non-gain effects were weaker than were loss/gain effects on judgments of frame imaginability, frame believability, and attributions for gas price fluctuations. Liberman et al. (2005) found null effects for non-loss versus non-gain frames. These results suggest that consumers are frequently insensitive to the absence of a loss or the absence of a gain, just as they are insensitive to a wide variety of other types of omissions (Sanbonmatsu et al., 1991, 1992, 1997, 2003). Prior research on omission neglect has focused on missing attributes, missing alternatives, and missing contextual details. The present research shows that omission neglect also occurs in framing and persuasion. Frames involving the presence of a gain or the presence of a loss are more persuasive than are frames involving the absence of a gain or the absence of a loss.

Omission neglect—or insensitivity to missing information—has been observed across many different paradigms. People are insensitive to missing features in visual processing (Treisman & Gormican, 1988), missing predictive signals in contingency learning (Newman, Wolf, & Hearst, 1980), missing attributes in multiattribute evaluation (Sanbonmatsu et al., 1991, 1992, 1997, 2003), missing contextual details in temporal construal (Gilbert, 2006), missing probabilities in gambles in the Ellsberg paradigm (Fox & Weber, 2002), missing alternatives in the fault tree paradigm (Silvera, Kardes, Harvey, Cronley, & Houghton, 2005), and missing actions or errors of omission in self-assessment (Caputo & Dunning, 2005). As the present research shows, people are also insensitive to missing gains and missing losses in outcome framing.

References


