Judgment and Decision Making, Vol. 11, No. 6, November 2016, pp. 582–588

Trade-upgrade framing effects: Trades are losses, but upgrades are improvements

Yan Sun* Barbara Mellers †

Abstract

In two studies, people were reluctant to trade items they own, but glad to accept upgrades with identical end states. The framing of the transaction makes a difference. A mediational analysis suggests that the relationship between the frame of the transaction and measures of value (willingness to accept, WTA) depends on perceived losses. Losses are perceived as greater when the transaction is a trade than as an upgrade. We manipulated perceptions of loss across descriptions of transactions and found that, when the difference in perceptions of losses with trades versus upgrades was large, framing effects were strong. But when the difference was small, framing effects disappeared. These framing effects with identical end states influence WTA because trades are associated with perceived losses, while upgrades are associated with perceived costs.

Keywords: framing effects, trade aversion, loss aversion, endowment effect, upgrades.

1 Introduction

Trade is the cornerstone of a commodity society. However, people often overvalue their own goods and are reluctant to trade them, a finding known as the endowment effect (Kahneman, Knetsch & Thaler, 1990; Samuelson & Zeckhauser, 1988; Thaler, 1980). This study investigates a new method of promoting trade called the trade-upgrade framing effect.

We begin with a discussion of the reluctance to trade and the most widely cited explanation for it — loss aversion. Next, we introduce the concept of framing and demonstrate a trade-upgrade framing effect. We test a mechanism for the framing effects in two experiments and discuss the implications.

1.1 Reluctance to trade

A robust finding is that, once people own an item, they become reluctant to trade it and often demand a higher price to give it up than they would be willing to pay to acquire it. This widespread phenomenon is known as the endowment effect (Kahneman, Knetsch & Thaler, 1990). The reluctance to trade an endowed item has been shown with mugs and chocolates (Knetsch, 1989), wine (Van Dijk & Knippenberg, 1998), crayons and Kit-Kat bars (Chapman, 1998), lottery tickets (Bar-Hillel & Neter, 1996), keychains (Chatterjee, Irmak & Rose, 2013), and pens (Burson, Faro & Rottenstreich, 2013). The reluctance to trade remains despite monetary incentives (Bar-Hillel & Neter, 1996), or trading experience (Harbaugh, Krause & Vesterlund, 2001; Kahneman, Knetsch & Thaler, 1990; but see List, 2003 for an alternative view). Evidence for the reluctance to trade has even been found in capuchin monkeys (Lakshminaryanan, Chen & Santos, 2008).

Many believe that loss aversion accounts for the reluctance to trade. Possession of an item causes one to view the selling of it as a loss. When buying the item, one views it as a gain. Because losses loom larger than equivalent gains, the minimum selling price for the item systematically exceeds the maximum buying price (Kahneman, Knetsch & Thaler, 1990). Consistent with the loss aversion account, people are happy to trade when their sense of loss is reduced or eliminated. Mandel (2002) found that owners would set lower selling prices as their desire to complete a potential transaction increased. Similarly, Novemsky and Kahneman (2005) argued that the transaction of goods that are intended all along to be traded up do not exhibit loss aversion. For example, a shoe merchant would not experience a sense of loss when selling his shoes. Reluctance exists with "passive asked-trades", but not with "active wanted-trades" because wanted trades do not elicit feelings of loss.

A related finding that supports the loss aversion account of endowment effects comes from research showing that reluctance to trade does not occur when an item is traded for a similar one (Bar-Hillel & Neter, 1996; Chapman, 1998; Paolacci, Burson & Rick, 2011; van Dijk & van Knippenberg,

The present study is partly supported by the Beijing Natural Science Foundation (No. 9162017) and Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences. The authors thank Dr. Maya Bar-Hillel, Dr. Jonathan Baron, Dr. David R. Mandel and an anonymous referee for helpful comments on an earlier version of this article.

*CAS Key Laboratory of Behavioral Science, Institute of Psychology. Email: suny@psych.ac.cn.

†Department of Psychology and The Wharton School, University of Pennsylvania

1998). Similarity of the items reduces perceptions of loss and makes people more willing to make the transaction.

A study done by Bar-Hillel and Neter (1996) also suggests that reluctance to trade is related to the sense of loss. They gave subjects lottery tickets with specific numbers. Before the experimenter selected the winning number, subjects were told that they could exchange their ticket for another, and they would also receive an expensive and attractive truffle. Fifty-nine percent were unwilling to trade. In a later study, subjects were asked if they would trade their current ticket for a different-colored ticket with the same number. This "same-fate" design removed the sense of loss, and all subjects were willing to make the exchange.

Carmon and Ariely (2000) found that owning a basketball ticket typically caused subjects to focus on the ticket when they considered trading it for money. This focus resulted in reluctance to trade. But when subjects focused on the benefits of trading, that reluctance declined. Highlighting the benefits of trading reduced the sense of losses.

1.2 Trade-Upgrade framing effects

Studies of framing demonstrate that people routinely accept information as it is given rather than actively processes it with multiple frames (Kühberger, 1998; Levin, Schneider & Gaeth, 1998; Li & Chapman, 2013; Tversky & Kahneman, 1981). Framing effects can reverse preferences. For instance, when patients were presented with cancer treatments of surgery versus radiation, they were relatively more likely to accept surgery when it was described as an option with a 90% survival rate than when described as one with a 10% mortality rate (McNeil et al, 1982). Framing effects can also influence judgments. Consumers expressed more favorable evaluations toward beef that was labeled "75% lean" than "25% fat" (Levin & Gaeth, 1988).

Finally, Kahneman and Tversky (1984) showed that people were sensitive to framing effects described as costs versus losses. The majority of subjects were willing to pay to play a gamble with a fixed cost, but they rejected the same gamble when the cost was described as a loss (Kahneman & Tversky, 1984).

Transactions can sometimes be referred to as either trades (purchasing a new item) or upgrades (purchasing a new item using the old item plus an additional cost). These exchanges can result in different outcomes. With trades, one is sometimes left with the original item and the new one. With upgrades, one's final state is only the new and improved item. One might trade money to purchase a new camera while keeping an older one, or one might upgrade cameras by exchanging the old for a new one and paying a smaller amount.

But trades and upgrades could also be designed with identical outcomes. People could be asked if they would "trade" their old item for a new one (i.e., an upgrade) or they could be asked if they would pay a cost for an upgrade. We hypothesized that, although end states were identical, the description of the exchange would affect the willingness to trade. In both cases, people presumably use the old item as their reference point. But when exchanges are described as trades, they could consider the money they must give up to get the new item (Chapman, 1998; Kahneman et al, 1990). With upgrades, they could consider the costs of getting the new item. The money or time required to upgrade would then be the cost of that improvement. People could be more willing to accept the cost of the upgrade, but less likely to accept the loss associated with a trade.

We conducted two experiments designed to test the hypothesis that losses are perceived differently in the two frames. In Experiment 1, we examined gym card questions in which the final states of trades and upgrades were identical. The only difference was the description of the transaction. We expected people would be more likely to exchange in the upgrade frame than the trade frame. Using meditational analyses, we explored the hypothesis that perceptions of losses mediated the differences across frames. In Experiment 2 we manipulated perceived losses see whether we had identified the conceptual underpinning. We expected framing effects to be eliminated when perceived losses were the same.

2 Experiment 1

The purpose of Experiment 1 was to test whether people were more open to upgrades because of their reduced sense of loss. We thus measured exchanges and perceived losses to explore these possibilities.

2.1 Method

Subjects. Each of 232 subjects was paid $10 for serving in a one-hour experiment at the Wharton Behavioral Lab at the University of Pennsylvania. During the hour, the subjects completed a variety of unrelated surveys.

Materials and Procedure. We designed a gym membership card scenario that described the transaction as either a trade or an upgrade. In each version, subjects were told they owned a gym membership card. They were asked to state the number of extra hours they would work for the gym to get a better card. A greater number of working hours indicates a stronger willingness to exchange. Materials are shown below. The first paragraph was identical in both conditions, and the second paragraph was the only part that varied. Bolded words (not shown to subjects) are the only differences.

Imagine that you own a Type A membership card for a gym club. Your membership allows you to access all of the facilities for the next three months. The club also offers a Type B membership card. The Type B membership allows the holder to access all of the facilities for the next six months. Note that the holder of the Type B membership card must work for the club during the six months. The work is to greet patrons, check IDs, assist in building security, make court reservations, and perform duties related to equipment inventory and disbursement.

Trade version:

You have a chance to **trade** your original Type A membership for Type B membership. Obviously, the fewer the number of working hours you have to do, the more attractive the Type B card becomes. If the working hours were beyond a point, you would keep your Type A card and refuse the **trade**. Please consider the offer. What is the *maximum* number of working hours you would be willing to offer to **trade** for the Type B card?

Upgrade version:

You have a chance to **upgrade** your original Type A membership into Type B membership. Obviously, the fewer the number of working hours you have to do, the more attractive the Type B card becomes. If the working hours were beyond a point, you would keep your Type A card and refuse to **upgrade** it. What is the *maximum* number of working hours you would be willing to offer to **upgrade** to the Type B card?

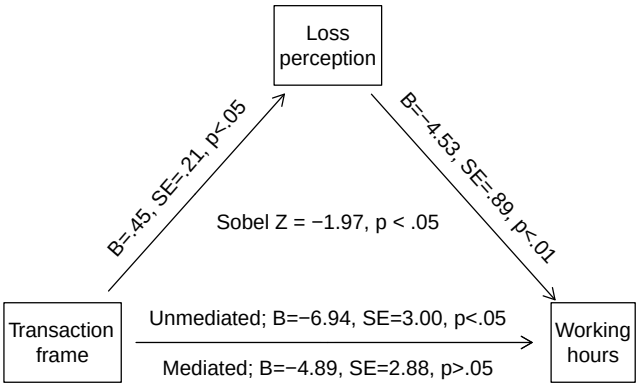
Subjects were randomly assigned to frames. One hundred and fifteen subjects responded to the trade framing, and 117 subjects received the upgrade frame. After filling out the maximum number of working hours the subject would offer, he or she was asked, "Do you have feelings of loss when you consider the number of working hours above?" Responses were made on a scale from 1 (Not at all) to 7 (Extremely). We predicted that, relative to subjects in the trade version, subjects in the upgrade version would perceive smaller losses and offer more working hours to get the better card.

2.2 Results and Discussion

As predicted, subjects were willing to work more hours in the upgrade frame (M = 30.1 hours, SD = 25.7 hours) than in the trade frame (M = 23.2 hours, SD = 19.4 hours), despite the identical end states (F (1, 229) = 5.34, p = .022).

Mediational Analysis. We performed a mediation analysis to investigate the relationship between the frame and the maximum number of working hours offered (i.e., WTA). The frame used was as a dummy variable; trades and upgrades were coded as 1 and 0, respectively. First, we conducted a regression analysis using working hours as the dependent variable and frame as the predictor variable. Framing as significantly related to working hours (β_1 = –.15, t(229) = –2.31, p = .022). Second, framing predicted the proposed mediator, perceived loss in the transaction (β_2 = .14, t(229) = 2.12, p = .035). Third, a regression with working hours as the criterion and frame and perceived losses as predictors, frame was no longer significant (t(228) = –1.70, p = .090), but perceived losses were still predictive (β_3 = –.32, t(228) = –5.1, p = .000). A Sobel Test showed that the effect of frame on working hours is consistent with full mediation by perceived losses (Z =–1.97 , p = .024), as summarized in Figure 1.[1]

Figure 1: The mediator analyses in Experiment 1.



Experiment 1 demonstrated that trade versus upgrade descriptions of a transaction with the same end state could influence intentions. Relative to subjects in the trade frame, those in the upgrade frame were willing to work more hours to improve their gym card. The upgrade description made the proposal more attractive. Furthermore, the relationship between transaction intention and the trade-upgrade manipulation was mediated by perceived loss. In the next experiment, we manipulated perceptions of loss aversion to further test the hypothesis.

3 Experiment 2

This study was designed to see if loss perceptions influence the trade-upgrade framing effect.

[1] We also examined whether the indirect effects of perceived losses were significant using bootstrapping procedures. Using 5,000 samples, we generated a 95% confidence interval for perceived losses and found that the interval excluded zero, suggestive of significant medication (95% CI = –4.31 to –.27; SE = 1.01).

3.1 Method

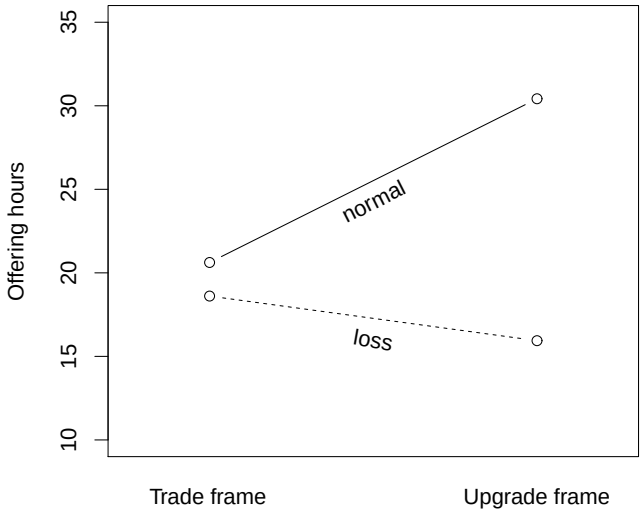
Subjects. Each of 340 subjects was paid $10 for serving in a one-hour experiment at the Wharton Behavioral Lab at the University of Pennsylvania. During the hour, the subjects completed multiple surveys.

Materials and Procedure. We conducted a 2 x 2 factorial experiment. Factors were Transaction Frame (Trade vs. Upgrade) and Loss Perception level (Control vs. High). We constructed four versions of the gym membership card problem. In the control condition, the trade version and the upgrade version were the same as in Experiment 1. In the high loss perception condition, we revised the scenarios to point out the potential losses if the transaction occurred. These scenarios are shown below. The first paragraph was identical across frames and the second was varied.

> Imagine that you own a Type A membership card for a gym club. Your Type A membership allows you to access all of the facilities for the next three months. The club also offers a Type B membership card. The Type B membership allows the holder to access all of the facilities for the next six months. Note that the holder of the Type B membership card must give up leisure time to work for the club during the six months. The work is to greet patrons, check IDs, assist in building security, make court reservations, and perform duties related to equipment inventory and disbursement.
>
> Trade with High Loss Perceptions:
>
> Now you have a chance to trade your original Type A membership for Type B membership. Obviously, the fewer the number of working hours you have to do, the more attractive the Type B card becomes. If the working hours were beyond a point, you would keep your Type A card and refuse the trade. Please consider the offer. **What is the maximum number of hours you would give up from your leisure time and work at the gym to trade for the Type B card?**
>
> Upgrade with High Loss Perceptions:
>
> Now you have a chance to upgrade your original Type A membership into Type B membership. Obviously, the fewer the number of working hours you have to do, the more attractive the Type B card becomes. If the working hours were beyond a point, you would keep your Type A card and refuse to upgrade it. Please consider the offer. **What is the maximum number of hours you would give up from your leisure time and work at the gym to upgrade to the Type B card?**

Subjects were randomly assigned to one of the four versions. After filling out the maximum number of working hours he or she would offer, each subject responded to the question of loss perceptions on a scale from 0 (Not at all) to 10 (Extremely). Subjects were asked, "Do you have feelings of loss when you consider the number of working hours above?" Each subject also responded to the question about cost-loss attention on a scale from 0 (Cost) to 10 (Loss). Subjects were asked, "When you consider the exchange, do you focus more on the cost of greater gym opportunity or the loss of more leisure time?" We predicted that trades would be associated with perceptions of greater losses than costs, whereas upgrades would be associated with perceptions of greater costs than losses.

Figure 2: Offering hours as a function of description frame and loss perception manipulation in Experiment 2.



We predicted that, in the control condition, there would be a framing effect. Subjects would offer more working hours to upgrade to the better card than to trade for the better card. In addition, subjects in the upgrade version would perceive smaller losses than subjects in the trade version. However, we predicted that a framing effect would not be observed in the high loss perception condition, because highlighting the loss of leisure time in both frames would elicit strong and more similar loss perceptions.

3.2 Results and Discussion

Figure 2 shows the maximum number of hours offered as a function of description frame and loss perceptions.

A 2x2 ANOVA on working hours revealed a significant main effect of loss perceptions ($M_{control}$ = 25.3, SD = 26.3; M_{loss} = 17.3, SD = 18.8; F (1, 336) = 10.97, p = .001). The main effect for framing was not significant (M_{trade} = 19.7, SD = 20.4; $M_{upgrade}$ = 23.5, SD = 26.2, F (1, 336) = 2.05, p = .100). The key test was the interaction between framing and loss perceptions which was statistically significant (F (1, 336) = 6.28, p = .007). Subjects in the upgrade condition

with no mention of leisure time were willing to work more hours than those in the trade condition (M = 30.4, SD = 31.3 versus M = 20.6, SD = 19.9; F (1,179) = 6.43, p = .007, respectively). In contrast, subjects in the high loss perception condition offered fewer hours of work and similar amounts in the upgrade and trade frames (M = 15.9, SD = 16.4 versus M = 18.6, SD = 20.9; F (1, 157) = .81). The framing effect was eliminated when loss perceptions were similar across frames. Results supported our conjecture that loss aversion drives these framing effects. When highlighting potential losses, the benefits of upgrades were reduced.

In the control condition, subjects perceived stronger losses in the trade frame than in the upgrade frame (M_{trade} = 5.7, SD = 2.4 versus $M_{upgrade}$ = 4.8, SD = 2.6; F (1, 179) = 5.4, p = .012). With high loss perceptions, there was no significant difference in feelings of loss between frames (M_{trade} = 5.9, SD = 2.7; $M_{upgrade}$ = 5.7, SD = 2.4; F (1, 157) = .26).

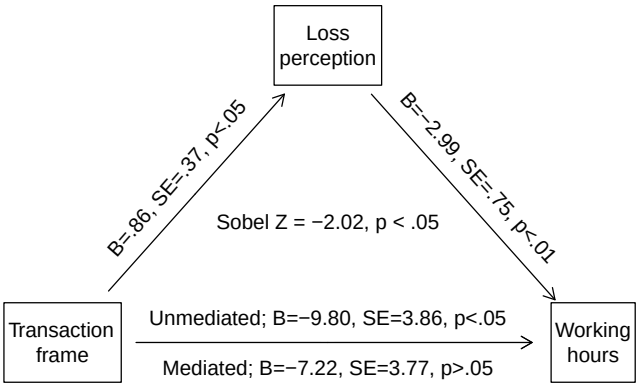
Mediational Analysis. Following the procedure of Experiment 1, we examined the relationship between the framing and the number of hours offered. Because there was no significant difference in the number of hours offered between the trade and upgrade frames in the high loss condition, the meditational analysis was done on the control condition only.

Once again, trade and upgrade frames were coded as 1 and 0, respectively. First, a regression analysis using offering hours as the dependent variable revealed a significant effect of frame (β_1 = –.19, t(179) = –2.54, p = .033). Second, framing (almost significantly) predicted the expected mediator of perceived losses in the transaction (β_2 = .17, t(179) = 2.32, p = .055). Finally, in a regression with frame and perceived losses, perceived losses was a significant predictor (β_3 = –.29, t(178) = –4.00, p = .000), whereas frame was not (t(178) = –1.92, p = .127). The Sobel Test was almost statistically significant (Z =–2.02, p = .052)[2], and the mediation analysis revealed that the effect of framing on number of hours offered was consistent with full mediation by perceived losses, as summarized in Figure 3.

Cost versus Losses. Experiments 1 and 2 showed that trade-upgrade framing effects were obtained. Furthermore, they were mediated by perceived losses. Trades were associated with greater perceptions of losses than upgrades. This relationship held in the control condition (M_{trade} = 6.1, SD = 2.9; $M_{upgrade}$ = 5.2, SD = 2.9 (F (1, 179) = 4.50, p = .020), but not in the conditions with high loss perceptions, as expected ($M_{upgrade}$ = 6.5, SD = 2.6; M_{trade} = 6.2, SD = 2.9; F (1, 157) = .42). When loss perceptions were similar in both fames, the framing effect was eliminated. This result further supported the hypothesis that loss perceptions were the conceptual underpinnings of the framing effects.

[2]Once again we used bootstrapping methods and took 5,000 samples to generate a 95% CI (95% CI = –5.62 to –.61; SE = 1.24). This interval excluded zero, indicating significant mediation of perceived losses.

Figure 3: The mediator analyses in Experiment 2.



4 General discussion

People often dislike trading an item they own because giving up an endowed possession typically elicits a sense of loss. The current paper found that people would be more likely to accept a transaction that was described as an upgrade than one described as a trade. Trade-upgrade effects occur because losses loom larger for trades than for upgrades. People showed less reluctance to accept the costs of upgrades than the losses in equivalent trades. Furthermore, by exploring the strength of perceived losses in the transaction, our results indicated that the difference in loss perceptions mediated the framing effect. Consistent with the loss aversion account, effects were eliminated when the extra factors reduced the difference in loss perceptions between the trade and upgrade frames.

Both motivational factors and cognitive factors influence transaction intentions (Mandel, 2002; Novemsky & Kahneman, 2005; Carmon & Ariely, 2000; Chapman, 1998; van Dijk & van Knippenberg, 1998). The current paper adds to this literature by identifying the effects of identical transactions described differently.

Our findings can be related to the literature on motivation for improvement. Improvement drives individuals to change from a current state to a better one (Higgins, 1997, 2012). Upgrades are types of improvements, whereas trades are forms of change. People prefer exchanges that bring to mind improvement over exchanges that bring to mind losses offset by gains.

Our findings are also consistent with EVA, the explicated valence account of preference construction (Tombu & Mandel, 2015). According to EVA, standard and reversed framing effects can be described by the number of explicated loss and gain statements associated with each option. Trade-upgrade effects occur because trade descriptions increased the perceived number of loss statements. In fact, we see the consistency between our results and EVA more clearly in Experiment 2. Transactions were significantly less attractive as we highlighted the loss in leisure time.

Previous research has shown that people often prefer a replacement offer to a straight sale offer. For example, consumers who traded-in an old product (e.g., camera) for a new one exhibited a higher willingness-to-pay for the new product than consumers who bought the new product (Okada, 2001; Zhu, Chen & Dasgupta, 2008).

The replacement offer in that research is similar to the upgrade offer in the current study. However, the present study differs from those studies in two respects. First, the trade and upgrade frames offered identical end states, whereas previous research investigated transactions for which ends states differed. In the straight sale, subjects ended up with both the new item and old items, whereas with the replacement sale, they ended up with only the new item. Without knowing the quality of the old item or the price it would garner, it is difficult to make general predictions about whether transaction intentions would be greater in a replacement or a straight sale condition. Second, previous research suggested that the reason people preferred replacements to straight sales was to avoid waste (Arkes, 1996), whereas we found loss perceptions were the conceptual underpinning of the trade-upgrade framing effects. The desire to avoid waste could, in fact, be motivated by feelings of loss.

Highlighting the benefits of alternative options to a trade can decrease purchase intentions (Frederick, Novemsky, Wang, Dhar & Nowlis, 2009). Consistent with this finding, we found that people were less likely to make transactions when potential costs (and thereby alternative benefits) were made more salient. People who are concerned about alternative benefits construct virtual losses. For example, when you consider buying a $1000 watch, the reminder that "$1000 would be enough to get a laptop" could make you feel as if you were losing a laptop. Such a close association between trade intentions and loss perceptions suggests that the size of trade-upgrade framing effects could fluctuate with reminders of alternative benefits.

Kahneman (2011) and others have proposed that human cognition reflects two distinct systems: a controlled analytic system and a heuristic system. The analytic system is a slower, effortful, rule-based system; the heuristic system is a relatively effortless one that relies on intuitive judgment. According to this two-system view, framing can affect preferences because the heuristic system automatically accepts the frame in which information is presented. If the heuristic system is responsible for the trade vs. upgrade framing effects, a strengthening of the analytical system or weakening of the heuristic system might make the effects disappear. Understanding how these systems interact in trade-upgrade frames is a topic for future research.

Our findings have practical implications for marketers. When a firm wants to increase its sales, that firm might do better offering and emphasizing upgrades rather than (or in addition to) trades. Customers view the transactions differently; trades involve greater losses, and upgrades are associated with legitimate costs.

References

Arkes, H. R. (1996). The psychology of waste. *Journal of Behavioral Decision Making, 9,* 213–224.

Bar-Hillel, M., & Neter, E. (1996). Why are people reluctant to exchange lottery tickets? *Journal of Personality and Social Psychology*, *70*, 17–27.

Burson, K., Faro, D., & Rottenstreich, Y. (2013). Multiple-unit holdings yield attenuated endowment effects. *Management Science*, *59*, 545–555.

Carmon, Z., & Ariely, D. (2000). Focusing on the forgone: How value can appear so different to buyers and sellers. *Journal of Consumer Research*, *27*, 360–370.

Chapman, G. B. (1998). Similarity and reluctance to trade. *Journal of Behavioral Decision Making*, *11*, 47–58.

Chatterjee, P., Irmak, C., & Rose, R. L. (2013). The endowment effect as self-enhancement in response to threat. *Journal of Consumer Research*, *40*, 460–476.

Frederick, S., Novemsky, N., Wang, J., Dhar, R., & Nowlis, S. (2009). Opportunity cost neglect. *Journal of Consumer Research*, *36*, 553–561.

Harbaugh, W. T., Krause, K., & Vesterlund, L. (2001). Are adults better behaved than children? Age, experience, and the endowment effect. *Economics Letters*, *70*, 175–181.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52,* 1280–1300.

Higgins, E. T. (2012). *Beyond pleasure and pain: How motivation works.* New York, NY: Oxford University Press.

Kahneman, D. (2011). *Thinking, fast and slow.* New York, NY: Farrar, Straus and Giroux.

Kahneman, D., Knetsch, J. L., & Thaler, R. (1990). Experimental tests of the endowment effect and the Coase Theorem. *Journal of Political Economy, 99,* 1325–1348.

Kahneman, D., & Tversky, A. (1984). Choices, values, frames. *American Psychologist, 39,* 341–350.

Knetsch, J. L. (1989). The endowment effect and evidence of nonreversible indifference curves. *The American Economic Review, 79,*1277–1284.

Kühberger, A. (1998). The influence of framing on risky decisions: A meta-analysis. *Organizational Behavior and Human Decision Processes, 75,* 23–55.

Lakshminaryanan, V., Chen, M. K., & Santos, L. R. (2008). Endowment effect in capuchin monkeys. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *363*, 3837–3844.

Levin, I. P, & Gaeth, G. J. (1988). How consumers are affected by the framing of attribute information before

and after consuming the product. *Journal of Consumer Research, 15,* 374–378.

Levin, I. P., Schneider, S., & Gaeth, G. J. (1998). All frames are not created equal: a typology and critical analysis of framing effects. *Organizational Behavior and Human Decision Processes, 76,* 149–188.

Li, M., & Chapman, G. B. (2013). A big fish or a small pond? Framing effects in percentages. *Organizational Behavior and Human Decision Processes, 122,* 190–199.

List, J. A. (2003). Does market experience eliminate market anomalies? *The Quarterly Journal of Economics*, *118*, 41–71.

Mandel, D. R. (2002). Beyond mere ownership: Transaction demand as a moderator of the endowment effect. *Organizational Behavior and Human Decision Processes*, *88*, 737–747.

McNeil, B. J., Pauker, S. G., Sox Jr, H. C., & Tversky, A. (1982). On the elicitation of preferences for alternative therapies. *The New England journal of medicine*, *306*, 1259–1262.

Novemsky, N., & Kahneman, D. (2005). The boundaries of loss aversion. *Journal of Marketing Research*, *42*, 119–128.

Okada, E. M. (2001). Trade-ins, mental accounting, and product replacement decisions. *Journal of Consumer Research*, *27*, 433–446.

Paolacci, G., Burson, K. A., & Rick, S. I. (2011). The intermediate alternative effect: Considering a small tradeoff increases subsequent willingness to make large tradeoffs. *Journal of Consumer Psychology*, *21*, 384–392.

Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of risk and uncertainty*, *1*, 7–59.

Thaler, R. (1980). Toward a positive theory of consumer choice. *Journal of Economic Behavior & Organization*, *1*, 39–60.

Tombu, M., & Mandel, D. R. (2015). When does framing influence preferences, risk perceptions, and risk attitudes? The explicated valence account. *Journal of Behavioral Decision Making, 28*, 464–476.

Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science, 211,* 453–458.

Van Dijk, E., & Van Knippenberg, D. (1998). Trading wine: On the endowment effect, loss aversion, and the comparability of consumer goods. *Journal of Economic Psychology*, *19*, 485–495.

Zhu, R., Chen, X., & Dasgupta, S. (2008). Can trade-ins hurt you? Exploring the effect of a trade-in on consumers' willingness to pay for a new product. *Journal of Marketing Research*, *45*, 159–170.