Selling the Forest, Buying the Trees: The Effect of Construal Level on Seller-Buyer Price Discrepancy

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Four studies demonstrate that selling and buying prices are differentially influenced by the value of products' low- and high-level construal features. The study shows that sellers construe products at a higher level than do buyers and owners. Based on this, this study predicts and demonstrates that selling prices exceed buying prices when (1) the object’s primary aspects are superior and the object’s secondary aspects are inferior but not vice versa, (2) individuals focus on a product’s desirability-related aspects rather than the same product’s feasibility-related aspects, (3) individuals are in a “why” mind-set but not when they are in a “how” mind-set, and (4) the product’s desirability aspects are superior and its feasibility aspects inferior but not vice versa. Further, sellers’ and buyers’ differential construal mediates the difference between seller and buyer prices, which emerges when a product’s value derives from high-level features but not from low-level features.

Although microeconomic theory (Willig 1976) predicts that ownership of an item should not have an impact on how much the item is valued (Coase 1960), numerous laboratory and field studies find that selling prices of an object are several times higher than its buying prices (Boyce et al. 1992; Irwin 1994; Kahneman, Knetsch, and Thaler 1990; Shogren et al. 1994). This discrepancy between selling and buying prices of an object, sometimes referred to as the “endowment effect” (Thaler 1980), has been observed in a myriad of domains ranging from everyday market items such as coffee mugs and pens (Kahneman et al. 1990) to nonmarket goods such as air quality (Rowe, d’Arge, and Brookshire 1980) and trash cleanup services (Irwin 1994). One of the most widely accepted explanations of the seller-buyer price discrepancy is loss aversion (Ariely, Huber, and Wertenbroch 2005; Bar-Hillel and Neter 1996; Kahneman et al. 1990; Novemsky and Kahneman 2005). According to this explanation, sellers lose the item while gaining some money; buyers, in contrast, gain the item and lose some money. Because individuals tend to put more weight on losses than they do on equivalent amount of gains, they tend to evaluate items they consider selling more positively than they do items they consider buying.

Building on the loss-aversion explanation, much research on seller-buyer price discrepancy has pointed to differences in the way sellers and buyers focus on various aspects of the product and/or the transaction (Boyce et al. 1992; Carmon and Ariely 2000; Irwin 1994; Johnson, Haubl, and Keinan 2007; Nayakankuppam and Mishra 2005). For example, Carmon and Ariely (2000) demonstrate that both sellers and buyers focus on what they forgo in the exchange, that is, sellers focus on the benefits of the product that they forgo, while buyers focus on the anticipated expenditure. As a result, selling prices are more influenced by the change in aspects that are related to the benefits of the product; whereas buying prices are more affected by the change in

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expenditure-related aspects of it. Other research has pointed to additional aspects of an item that are more likely to be focused on by sellers than buyers, and whose presence can therefore exacerbate buyer-seller discrepancy. For example, Boyce (1992) and Irwin (1994) suggest that sellers increasingly focus on an item’s morally relevant attributes that are hard to substitute, and that this leads to greater seller-buyer discrepancies for items with salient moral attributes.

Building on this body of research, in the present research we use construal level theory (CLT; Trope and Liberman 2003) to seek further insight into the process through which sellers’ and buyers’ focus diverge, which influences the magnitude of seller-buyer discrepancy. CLT distinguishes between two forms of representation: high-level construals, abstract representations that capture the desirability-related, core, central aspects of items and events, and low-level construals that are related to feasibility, rich in detail, but do not strongly discriminate what is primary over what is secondary (see Trope, Liberman, and Wakslak [2007] for a review). Importantly, construal level has been shown to influence judgments of value (Monga and Bagchi 2012; Yan and Sengupta 2011). For instance, construal level affects the weight accorded to primary and secondary product features (Trope and Liberman 2000) as well as desirability and feasibility aspects of products (Dhar and Kim 2007); as a result, when a product is represented by high-level construals, aspects that are related to its primary features or its desirability (i.e., why would I want to have this product?) become more salient and influential in product evaluation. In contrast, low-level construal of a product makes aspects that are relevant to its secondary features or its feasibility (i.e., how do I use this product?) relatively more salient and increasingly influential in driving product evaluation.

In the current work, we investigate the way in which mental representations of products change depending upon whether one is buying a product or selling a product, and how this change influences sellers’ and buyers’ focus and, through this, their assignment of value. Our general contention is consistent with earlier research on seller-buyer price discrepancies that has argued for a differential focus of sellers and buyers. Our main contribution is that we situate our predictions within a larger framework that adds insight into the process by which such differential focus occurs. Specifically, we contend that due to the difference in their construal level of the objects, sellers overweight high-level construal aspects of the object while buyers increasingly weight low-level construal aspects. As a result, seller prices eclipse buyer prices to a greater degree when the item is superior on high-level construal aspects than when it is superior on low-level construal aspects. In what follows, we first discuss how and why construal level of an object might differ between its sellers and buyers and then focus on the impact of such a difference for selling and buying prices.

SELLING THE FOREST, BUYING THE TREES

Our main contention in the current research is that sellers construe an object being traded at a higher level than do buyers. For buyers, it makes sense to think concretely about the experience of oneself owning and using the product and to set a value on that experience. Sellers, in contrast, will no longer themselves be users of the product, and so their conceptualization of the product should tend to be more abstract. Imagine, for instance, you bought a concert ticket and due to a conflict in your schedule you need to sell the ticket. It makes sense for you to construe the concert at a higher level, thinking about the why-aspects of the concert (e.g., a great band performance) when setting the price of the ticket, rather than focusing on the lower level construal features such as the distance of the concert hall from your home. After all, because you will not actually be using the ticket, the feasibility aspects of driving to the concert hall and finding a parking spot should no longer be salient. On the other hand, a buyer needs to weigh both the band’s performance and the ways of arriving at the concert hall when making the purchase decision. More generally, while sellers of a product, who will not be users of it, may focus on the end-state generated by the product (e.g., enjoyment of the concert), buyers, who contemplate using the product, are likely to focus on both the end-state and the ease or difficulty of reaching the end-state (e.g., ways of arriving at the concert hall).

Recent support for this contention comes from research examining how construal-level is affected by whether someone evaluates a product for themselves or for another person (Hamilton and Thompson 2007). Individuals think about an item in a higher-level fashion when they evaluate a product for others as a gift than when they evaluate the item for themselves; as a result, evaluating an item for someone else (vs. for oneself) leads to a greater focus on desirability aspects and a lesser focus on feasibility aspects (see also Baskin et al. 2012). We argue, similarly, that because selling facilitates the process of evaluating a product for others, sellers should develop more abstract object representations, focusing on an item’s key, defining features more than do buyers who evaluate the item for themselves.

This perspective is also consistent with some prior research and theorizing on seller-buyer discrepancy. For example, as we mentioned earlier, Irwin (1994) finds that sellers are especially attuned to moral/environmental aspects of items (leading to greater seller-buyer discrepancy for items with strong moral content), presumably because selling implies greater responsibility due to the difficulty in replacement of such attributes (Hanemann 1991). She argues that this pattern is consistent with Tversky et al.’s (1988) prominence hypothesis, wherein “some valuation modes (in this case, selling modes) encourage more weighting of the most prominent attribute (in this case, moral concerns)” (Irwin 1994, 453). Moving beyond moral concerns, our current approach explores the more general (but heretofore unex-
THE EFFECT OF CONSTRUAL LEVEL ON SELLER-BUYER PRICE DISCREPANCY

If sellers represent items at a higher level of construal, we would expect high-level construal features of the products (e.g., defining aspects such as those that are desirability-related or related to primary aspects of an item) to have a greater influence on sellers’ product valuations than low-level construal features (e.g., feasibility-related and secondary aspects). Buyers, however, who generally focus on both high-level and low-level construal aspects, should increasingly incorporate the value of low-level construal features into their overall item evaluations. Thus, seller-buyer price discrepancy (i.e., higher selling prices than buying prices) should be exacerbated when an item is superior on a high-level construal aspect (e.g., a primary product feature) and inferior on a low-level construal aspect (e.g., a secondary product feature). However, when the product is inferior on a high-level construal aspect and superior on a low-level construal aspect, we expect that this will have a larger negative impact on sellers’ valuation (because they focus primarily on the high-level construal aspect) than buyers’ valuation (because they focus also on the low-level construal aspect), and, accordingly, that this will result in a relatively smaller difference in selling and buying prices.

Furthermore, because sellers are particularly sensitive to high-level construal features, which are the primary conveyors of an item’s value to them, making sellers focus on low-level over high-level features (even when both are positive) should dilute their valuation of the item. This should not be the case for buyers, for whom low-level and high-level features are both similarly important. Thus, buyers’ valuation will not significantly change with their focus on low- or high-level features. Seller-buyer price discrepancy should therefore be ameliorated when participants in an exchange situation are prompted to focus on low-level features and exacerbated when participants are prompted to focus on high-level features.

It is important here to point out that our predictions are not inconsistent with the findings of those previous studies that used everyday products to examine seller-buyer price discrepancies. Specifically, the stimuli used and the procedures employed in many previous investigations have generally invited participants to evaluate the items based on their primary, desirability-related aspects, rather than on their secondary, feasibility-related aspects. For example, in a classic demonstration Kahneman et al. (1992) used mugs and pens as the items to be traded. Such simple items with few features have positive primary aspects, but do not present secondary aspects on which participants can base their evaluations. Thus, findings of a strong seller-buyer discrepancy with such items are consistent with our current suggestion that the discrepancy is most strong when value derives from high-level construal characteristics of the focal object (which are emphasized in seller’s high-level representations). Supporting this argument, a stronger endowment effect was found for university insignia mugs (which are particularly appealing to sellers as the university’s logo is an identity-related feature, which is emphasized in a high-level construal representation; Kivetz and Tyler 2007) than for plain white mugs (Gail 2004).

In the present research, we thus examine the seller-buyer price discrepancies not only for products that have been extensively used in previous studies (e.g., coffee mugs) but also for products that explicitly contain both high-level and low-level construal features. First, in study 1, we verify our underlying assumption that sellers construe products at a higher level of construal than do buyers. Having established this difference in construal, we then examine selling and buying prices for objects with varying values of high and low-level features. In studies 2 and 4 we present participants with options with positive high-level features and negative low-level features, or vice versa, and examine consequent pricing decisions of buyers and sellers. In study 3, we use a somewhat different approach, manipulating the focus of sellers and buyers without changing the description of the objects and examining whether desirability versus feasibility focus changes selling and buying prices of the same object. Because a focus on low-level construal aspects (e.g., feasibility focus) will introduce aspects that are lower in value to sellers’ valuation of the product (Irwin 1994), we expect it to decrease sellers’ valuation of the product; however, it should not have this diminishing effect on buyers’ prices as buyers increasingly value low-level product aspects. Finally, in study 4 we demonstrate that sellers’ and buyers’ differential construal mediates the effect of role on pricing, which is moderated by the value of a product’s low- and high-level construal features (i.e., feasibility and desirability aspects).

STUDY 1

The purpose of our first study was to investigate whether the mental construal of a product changes when individuals buy and sell the product. We predicted that items would be construed at a higher level when they are sold versus bought. Further, to help to substantiate our approach, we sought to investigate the construal level of owners. Owners and sellers are similar in that they both currently own the product. The key difference between them is that sellers will no longer
themselves be users of the product and so their conceptualization of the product should tend to be abstract as they are less likely to think of their own product usage. Owners and buyers, in contrast, should similarly care about their own consumption experience. They are the ones who will be using the product, so aspects of the product that are related to usage (e.g., how the product will be consumed) are important to them. Thus, an important way of supporting the current conceptualization is to examine whether owners’ construal level of the product looks more like buyers’ or sellers’. Because we expect that it is the contemplation of selling the product that leads one to adopt a higher-level construal perspective, we expect that owners’ construal level should not mirror sellers’ construal level. Rather, like buyers’ construal, owners’ construal level of the object should be at a lower level than that of sellers.

To examine this, we adapted an established measure of action identification (Vallacher and Wegner 1989), which reflects the tendency to identify activities in terms of either the defining, superordinate outcomes that they accomplish, or the more subordinate, concrete means by which they are carried out. Originally conceptualized as an individual difference measure, action identification has been used as one measure of context-induced construal (Fujita et al. 2006; Liberman and Trope 1998; Liviatan, Trope, and Liberman 2008; Waksler et al. 2006). We thus expected that participants contemplating selling (vs. buying and owning) a series of items would increasingly conceptualize actions related to those items in desirability-related over feasibility-related terms.

Method

One hundred seventy-nine individuals, who were recruited through Amazon’s Mechanical Turk (MTurk) website, participated in the study. Participants were randomly assigned to either the selling, buying, or owning condition and responded to a questionnaire that we adapted from the behavior identification form (BIF), Vallacher and Wegner’s (1989) measure of action identification. An introductory page provided the following instructions:

Activities that we do with products can be identified in any number of ways. For example, consider a computer keyboard. One person might describe the behavior of using a computer keyboard as “typing a paper,” while another might describe the behavior as “pushing keys.” Yet another person might describe the behavior as “expressing thoughts.” Following, you will find several different behaviors listed, each one associated with a particular consumer product. After each behavior will be two choices of different ways in which the behavior might be identified.

Next, participants in the selling [buying] condition read the following instructions: “We are interested in your identification of activities related to a series of products that you are considering selling [buying].” Before identifying each of the behaviors, we would like you to imagine that you are selling [buying] the related product. Imagine you have [been offered] the following products, which you are considering selling [buying].”

Participants in the owning condition read the following instructions: “We are interested in your identification of activities related to a series of products that you currently own. Before identifying each of the behaviors, we would like you to imagine that you own the related product. Imagine you have the following products under your possession.”

Participants were presented with a list of items (a washing machine, a paint brush, a lock, a houseplant, a vacuum cleaner, a toothbrush, a car, and a box of cereal), each of which was associated with an activity contained on the BIF. They then identified the eight activities from the BIF that were related to these items. We used this slightly modified version of the BIF because we argue that rather than creating a high- and low-level construal mind-set, or general processing orientation, selling and buying make people construe the exchanged product at a high and low level, respectively. We therefore selected items from the BIF that could be linked in a straightforward way to objects that people could consider selling or buying. For example, one item on the BIF is “eating” (chewing and swallowing vs. getting nutrition); we therefore had people consider a box of cereal and to choose between descriptions for “eating the box of cereal” by selecting one of the two BIF choices for eating (i.e., chewing and swallowing vs. getting nutrition). Preference for the low-level, feasibility-related identification for an item was coded as a 0, whereas preference for the high-level, desirability-related identification was coded as a 1. Finally, participants responded to a question regarding how they currently feel (1 = very sad, 7 = very happy) followed by demographics questions. Seven participants indicated that their first language is not English and were thus dropped from the data set (although including these participants in the analyses does not significantly change the results).

Results and Discussion

We conducted a repeated measures logit model using the GENMOD procedure in SAS with selling/buying/owning condition as the between-subjects and items as the within-subjects independent variables and action identification as the dependent variable. We also added mood as a covariate to the model as those in the owning condition reported a more positive mood than those in the selling and buying conditions. The results showed that, as predicted, participants in the selling condition had stronger preferences for high-level action identifications ($M = .74$) than those in the buying condition ($M = .63; z = -2.17, p < .05$) and in the owning condition ($M = .62; z = -2.55, p < .05$). There was no significant difference between buying and owning conditions ($z = .45, p > .60$). These results support our underlying assumption that individuals who imagine they are selling an item represent related activities at a higher level than those who imagine buying or owning the item.

In the following studies we aim to show implications of this difference in construal for selling and buying prices. If
sellers construe items at a higher level than do buyers (as we found in this study), then describing aspects of the product that relate to its high-level construal as inferior should attenuate the discrepancy between selling and buying prices. To examine this proposal we presented participants of the next study with products that are positive in terms of primary (goal-relevant, high-level construal) features but less positive in terms of secondary (goal-irrelevant, low-level construal) features, or products that are positive in terms of primary features but less positive in terms of secondary features. We expect to find higher selling prices than buying prices only in cases where the positive aspect of the items is a high-level construal feature.

**STUDY 2**

Study 2 was designed to examine whether the way the object is described by its primary (goal-relevant) and secondary (goal-irrelevant) features has an effect on seller-buyer price discrepancy. Specifically, we described the product as either superior on a primary feature and inferior on a secondary feature or superior on a secondary feature and inferior on a primary feature. We expect to observe higher seller prices than buyer prices when the object is superior on the primary aspect and no difference in seller and buyer prices when the object is superior on the secondary aspect. In addition, in the current study we test the differential impact of these different aspects on selling and buying prices by explicitly asking respondents to report the impact of primary and secondary item aspects on the prices that they set. We expect sellers, but not buyers, to report being more influenced by primary aspects than by secondary aspects.

Method

Sixty undergraduate students at Baruch College participated in the study for partial fulfillment of course requirements. Participants were randomly assigned to each of the four different conditions. In each condition, they were presented with a brief description of a camera. The camera was described by its primary and secondary aspects (either superior on the primary aspects and inferior on the secondary aspects; or inferior on the primary aspects and superior on the secondary aspects), where primary aspects were related to the goal of the individual who owns or considers owning the camera, and secondary aspects are irrelevant to the goal. Then, depending on the role condition they were assigned to, participants provided their maximum buying or minimum selling prices. Thus, the study had a 2 (role: buyer vs. seller) × 2 (feature: primary aspect superior, secondary aspect inferior; primary aspect inferior, secondary aspect superior), between-subjects design. The two versions of the description [with selling condition in brackets] are presented below:

Imagine that you want to buy [you have] an advanced camera for taking artistic pictures. You have been offered a camera, which [Your camera] has only some of the sophisticated features that an art photographer needs. However, the camera is compact and light, so it is easy to carry around with you.

Imagine that you want to buy [you have] an advanced camera for taking artistic pictures. You have been offered a camera, which [Your camera] has all of the sophisticated features that an art photographer needs. However, the camera is a little bulky and heavy, so it is not easy to carry around with you.

Next, those in the buying [selling] condition provided their maximum buying [minimum selling] prices by responding to the following question: “Considering that similar cameras are sold in the range of $400–$1000, if you were to buy this camera [if someone who is looking to take artistic pictures wants to buy your camera], how much would your maximum [minimum] price be? $____.”

Finally, all participants responded to two questions. The first question assessed the extent to which the buying/selling price set by the participant was affected by the primary features of the camera (“How much was the price you set affected by the features of the camera?” (1) not at all, (10) very much), and the second question assessed the extent to which the price was affected by the secondary features of the camera (“How much was the price you set affected by the weight and size of the camera?” (1) not at all, (10) very much).

Results and Discussion

In order to test our prediction, we conducted an ANOVA with role and feature conditions as the independent variables and the price of the camera as the dependent variable. The results showed a main effect of role ($F(1, 56) = 14.34, p < .001), indicating that selling prices ($M = $752) were higher than buying prices ($M = $576), a main effect of feature ($F(1, 56) = 5.67, p < .05), indicating that the camera superior on the primary aspect was priced higher ($M = $694) than the one superior on the secondary aspect ($M = $605), and a significant interaction of role and feature ($F(1, 56) = 4.36, p < .05), demonstrating that selling prices were higher than buying prices when the camera was described as superior on the primary aspect and inferior on the secondary aspect ($M_{seller} = $839; $M_{buyer} = $581; $p < .0001), whereas there was no significant difference between selling and buying prices when the camera was superior on the secondary aspect and inferior on the primary aspect ($M_{seller} = $650; $M_{buyer} = $572; $p = .24); see fig. 1).

Next, we examined participants’ reports of the impact the primary and secondary features had on their price decisions using a 2 × 2 mixed design ANOVA with role (buyer vs. seller) as a between-subjects factor and the type of feature under consideration (primary vs. secondary) as a within-subjects factor. Results showed that, overall, participants’ pricing decisions were more affected by primary features than secondary features ($M_{primary} = 7.97; M_{secondary} = 7.22; F(1, 58) = 2.90, p = .09). As expected, however, this effect was qualified by a marginal two-way interaction between the feature under consideration and role condition ($F(1, 58) = 3.30, p = .07), indicating that the weight given to primary and
BUYERS, on the other hand, naturally attend to high-valued features (Anderson 1965; Eagly and Chaiken 1993; Yadav 1994). By introducing lower valued features into their valuation of the product, diluting the value of the product will introduce aspects that are lower in value to sellers' product. Specifically, a focus on low-level construal features may decrease their valuation of the product, shifting sellers' focus away from high-level toward low-level construal aspects. Given the current results that show products are similarly positive in terms of high-level and low-level aspects in this study, many times products are as valuable as primary aspects to buyers.

The results of this study thus demonstrated a discrepancy between seller-buyer prices when the object was superior on the primary aspect and inferior on the secondary aspect, while no such effect was observed when the object was superior on the secondary aspect and inferior on the primary aspect. Further, results regarding the effects of object's primary and secondary features on pricing decisions supported the idea that while value of an object for a seller comes mainly from its primary features, leading sellers to set higher prices when the primary features are superior.

Although we manipulated the valence of an item’s high-level and low-level aspects in this study, many times products are similarly positive in terms of high-level and low-level construal aspects. Given the current results that show that sellers, as opposed to buyers, are overweighting the primary (i.e., high-level construal) aspects of the product, shifting sellers’ focus away from high-level toward low-level construal aspects may decrease their valuation of the product. Specifically, a focus on low-level construal features will introduce aspects that are lower in value to sellers’ valuation of the product, diluting the value of the product by introducing lower valued features into their valuation (Anderson 1965; Eagly and Chaiken 1993; Yadav 1994). Buyers, on the other hand, naturally attend to high and low-level construal features and increasingly value low-level construal aspects of the product; as a result, such a change in focus may not influence, or may even increase, their product valuation.

We tested this proposition in two studies (studies 3A and 3B). In study 3A we explicitly instructed sellers and buyers to focus on desirability or feasibility aspects of the product. In study 3B we manipulated their mind-set such that they valued the product when they were either in a why (high-level construal) or in a how (low-level construal) mind-set. We expected to observe the discrepancy between selling and buying prices only when participants are made to focus on desirability aspects of the product (study 3A) or when they are in a "why" mind-set (study 3B).

STUDY 3A

Method

Ninety-two undergraduates at Baruch College participated in the study for partial fulfillment of course requirements. The study had a 2 (role: buyer, seller) x 2 (focus: desirability, feasibility) between-subjects design. Participants were randomly assigned to either buyer or seller condition and presented with a business website membership scenario. The scenario described the product as superior both on the desirability dimension and on the feasibility dimension. The two versions of the scenario [with selling condition in brackets] are as follows:

Imagine that you have been offered [have] a monthly subscription to an online business news website. The website has great articles and industry information that match your professional interests. It has an added focus on the areas of business that are of interest to you. The website is really fast in terms of download time and is very well designed such that you can quickly figure out the sections that have articles of your interest.

After reading the scenario, participants in the desirability focus condition received the following instructions: “Now we want you to ask yourself the question: ‘Does the information content on the website match your professional interests?’” Those in the feasibility focus condition, on the other hand, received the following instructions: “Now we want you to ask yourself the question, ‘Is it convenient, easy, and efficient to find information on this website?’”

Next, those in the buyer condition [seller condition] provided their maximum buying [minimum selling] prices by responding to the following question: “After thinking about the above question, if you were to buy [sell] this subscription, how much would your maximum [minimum] price be? $_____/month.”

Results and Discussion

In order to test our prediction, we conducted an ANOVA with role and focus conditions as the independent variables and the price of the subscription as the dependent variable.
The results showed a main effect of role ($F(1, 88) = 4.92, p < .05$), indicating that selling prices were significantly higher than buying prices ($M_{seller} = 32.3; M_{buyer} = 17.9$) and a significant interaction of role and focus ($F(1, 88) = 3.90, p = .05$). As predicted, simple contrasts revealed that selling prices were significantly higher than buying prices when participants focused on desirability aspects of the product ($M_{seller} = 41.3; M_{buyer} = 15.2; p < .01$), and there was no significant difference between selling and buying prices when participants focused on feasibility aspects of the product ($M_{seller} = 22.9; M_{buyer} = 21.4, p > .80$; see fig. 2).

**STUDY 3B**

Study 3B expands on study 3A in two ways: first, we manipulate participants’ feasibility versus desirability focus through a “why” versus “how” mind-set prime instead of through direct instructions; second, we investigate the seller-buyer price discrepancy using a university insignia mug—an item widely used in previous endowment effect studies. In addition, we also include a control condition in this study to investigate whether a “why” mind-set is the default that participants assume when considering selling and buying products. Participants in the control condition may evaluate the mug in the same fashion as do those in a “why” mind-set, as the university insignia on the mug (a desirability aspect) should naturally dominate the identification of the mug and cue a why-oriented mind-set; indeed, this would be in line with repeated demonstrations of seller-buyer price discrepancy for this particular product.

**Method**

One hundred fifty-four undergraduate students at University of South Carolina participated in the study for partial fulfillment of course requirements. The study had a 2 (role: seller vs. chooser) × 3 (mind-set: why vs. how vs. control) between-subjects design, where participants were randomly assigned to each of the six conditions. We used a chooser, rather than buyer condition to control for the wealth position of those who were endowed with the mug and those who were not (Johnson et al. 2007; Lerner, Small, and Loewenstein 2004). Participants arrived in the behavioral lab and were told that the study involved the trading of a coffee mug. To further signify that real trade will take place during the study, the experimenter pointed to a stack of dollar bills that were placed next to coffee mugs on the reception table. Then, participants were seated at a computer terminal in a private carrel and the experimenter placed a coffee mug on the desk next to the computer the participant was working at. The coffee mug had the insignia of the university at which the study was conducted. In the seller condition, the experimenter told the participants that the coffee mug is theirs to keep and they will receive instructions on the computer regarding the mug in the following screens. Participants read the following instructions on the computer: “As a thank-you note for your participation in this study you are given a mug. The mug is yours to keep.” In the chooser condition, participants were told that the following study is about the coffee mug and they read on the computer that in the following study they will be asked some questions about the mug placed on their desk. Next, participants went through either the “why” mind-set or the “how” mind-set manipulation (Freitas, Gollwitzer, and Trope 2004; Liberman et al. 2007) or continued with the study without any mind-set manipulation (control condition). The mind-set manipulation was ostensibly presented as a pretest for a study on construction of narratives, which examines how people interpret different events they read about and what general impressions are created by different narratives. Participants read a series of one-sentence scenarios on the computer (e.g., “Jason is considering learning to play the piano”). After each sentence, those in the “why” mind-set condition were asked why the person in the scenario is acting the way he/she is acting (e.g., “Please describe why you think Jason would do that”). Those in the “how” mind-set were asked how the person can perform the behavior described in the scenario (e.g., “Please describe how Jason would do that”). Participants responded to six such scenarios and questions. After responding to these questions participants were thanked for participating in this section of the day’s session and asked to click continue to the next study.

Upon completion of the mind-set manipulation those in the seller condition received instructions on the computer that they now have the opportunity to trade their mug for some money. Those in the chooser condition were instructed that they now have the opportunity to get the mug on their desk or get some money. Then, participants were asked to respond to a series of pricing questions adapted from Kahneman et al. (1990). Specifically, participants in the seller condition were asked to indicate whether they prefer to sell or keep the coffee mug at each of the 40 different dollar
amounts starting at $.25 and ending at $10.00 with $.25 increments. Participants in the chooser condition were asked to indicate whether they prefer to receive the coffee mug or receive the amount of money at each of the 40 different dollar amounts. Further, in line with prior research on the endowment effect (e.g., Loewenstein and Issacharoff 1994), participants in the chooser [seller] condition read the following instructions:

We have predetermined a money amount for the mugs. The amount is written on a slip of paper in the envelope on the experimenter’s table. When you have completed the study, the amount will be revealed to you. If you specified below that you would prefer to take the money amount we reveal then we will give you the money [If you specified below that you would prefer to sell the mug for the money amount we reveal then you will give up the mug and we will give you the money]. If you specified that you would prefer to take the mug over the amount we reveal, then you will take the mug [If you specified that you would prefer to keep the mug over the amount we reveal, then you will keep the mug]. Note that your choices below will not affect the amount written in the envelope. Therefore, it is in your interest to indicate what the mug is truly worth to you. All trades will take place immediately at the end of the study.

After indicating whether they prefer to sell or keep the coffee mug (choose to take the mug or the money) at each of the 40 different dollar amounts, all participants were asked how they currently felt (1 = very sad/in a very bad mood/very tired/very bored, 7 = very happy/in a very good mood/very energetic/very involved). These items were averaged to form a composite measure of mood (α = .83). Then, participants reported how often they use a coffee mug (1 = never use it, 5 = use it all the time), their age, and their gender.

Upon completion of the study, the experimenter approached the participant and opened an envelope that contained a slip of paper showing the specified price of the mug (this price was $6, which was the price of the mug at the university bookstore). In the seller condition, if the price the participant indicated to sell the mug was higher than $6, the participant kept the mug. If the price was equal or lower than $6, then the participant gave the mug to the experimenter and received $6 in return. In the chooser condition, if the price the participant indicated to choose the money over the mug was higher than $6, the participant kept the mug. If the price was equal or lower than $6, then the experimenter took the mug back and paid $6 to the participant.

Results and Discussion

To test our prediction, we conducted an ANOVA with role and mind-set as independent variables and the price of the mug as the dependent variable. Results showed a significant main effect of role ($F(1, 148) = 17.56, p < .0001$), indicating that selling prices ($M = $6.10) were higher than choosing prices ($M = $4.35) and a significant interaction of role and mind-set ($F(2, 148) = 3.23, p < .05$), demonstrating that selling prices were higher than buying prices in the control condition ($M_{seller} = $6.21; $M_{chooser} = $4.26; $p < .01$) as well as when the participants were in the “why” mind-set ($M_{seller} = $6.42; $M_{chooser} = $3.93; $p < .01$), whereas no significant difference between selling and choosing prices emerged when the participants were in the “how” mind-set ($M_{seller} = $5.61; $M_{chooser} = $4.98; $p = .34$). Results thus replicated the pattern found in study 3A. Further, the pattern of results from the control condition replicated those of the “why” mind-set condition (see fig. 3), suggesting that individuals may naturally have approached the transaction situation in a “why” mind-set. Finally, when we included the mood and mug usage frequency measures as covariates in the model none of these were significant (all $p > .10$), and the primary results did not change significantly.

This study showed that by merely changing the focus of the sellers and buyers the seller-buyer discrepancy can be mitigated. Specifically, as the source of value that sellers care about is the desirability aspects of a product, whereas buyers are sensitive to both desirability and feasibility aspects, a focus or mind-set that makes individuals attend to feasibility aspects of the product led to attenuation of the seller-buyer discrepancy. On the other hand, a focus or mind-set that makes people attend more to high-level construal product aspects led to a larger seller-buyer discrepancy, mirroring results for the included control condition.

**STUDY 4**

The goal of study 4 is to examine more directly the role of construal level in the seller-buyer price discrepancy demonstrated in our earlier studies. Although study 1 suggested that buyers and sellers differentially construe items to be traded, and studies 2 and 3 found selling and buying prices...
consistent with a construal difference between buyers and sellers, we sought more direct evidence that construal differences between buyers and sellers were responsible for the seller and buyer price patterns we observed. To do this, we use a paradigm similar to that of study 2, where we manipulate the value of an item’s desirability and feasibility aspects, including here a measure of participants’ degree of high-level versus low-level construal representation and exploring whether this plays a mediational role. To manipulate the low- and high-level construal features of the object, we focused on its desirability and feasibility dimensions (Liberman and Trope 1998). Specifically, we described the product as either superior on a desirability aspect (high-level feature), and inferior on a feasibility aspect (low-level feature), or as superior on a feasibility aspect and inferior on a desirability aspect. In line with our findings in study 2, we expect seller buyer price discrepancy to be greater when the object is superior on the desirability aspect than when the object is superior on the feasibility aspect. Further, we aim to show the role of construal level in seller-buyer price discrepancy by demonstrating that construal level differences mediate the effect of buyer and seller role on pricing.

Method

Two hundred fifty-two individuals who were recruited through an online subject pool, Amazon’s MTurk, participated in the study. Participants were randomly assigned to each of the four different conditions. In each condition, they were presented with a brief description of a performance event. The event was described by its desirability and feasibility aspects (either superior on the desirability aspects and inferior on the feasibility aspects or inferior on the desirability aspects and superior on the feasibility aspects), where desirability aspects were related to the end-results or reasons of going to the event, and feasibility aspects are related to the means of the event or how to go to the event. A separate pretest (n = 25) was conducted to ensure that aspects of the event accurately represent desirability and feasibility. In line with the description of the event used in the main study (see below), participants of the pretest were instructed to, “Consider the following event: A performance is touring the country and coming to your city.” Participants then classified two aspects of the event regarding whether each related to desirability (how positive is the end-state) or feasibility (how pragmatic are the means of getting to the end-state). The first feature was “how popular and known for putting on a good show the performer is” (1 = feasibility, 7 = desirability). The second feature was “how cumbersome it is to pick up the tickets for the show after you’ve reserved them” (1 = feasibility, 7 = desirability). Means of both measures (M_{performer quality} = 6.20, M_{ticket ease} = 2.12) were significantly different from the middle point of the scale in the expected direction (performer quality: t = 8.52, p < .0001; ticket ease: t = -5.40, p < .0001), indicating that the features can accurately be described as desirability and feasibility dimensions, respectively.

In the main study, depending on the role condition they were assigned to, participants provided their maximum buying or minimum selling prices. Thus, the study had a 2 (role: buyer vs. seller) × 2 (feature: desirability aspect superior/ feasibility aspect inferior vs. desirability aspect inferior/feasibility aspect superior), between-subjects design. The two versions of the description [with selling condition in brackets] are presented below:

Imagine that you have been offered [you have] a ticket for a performance by a well-known performer who is touring around the country and coming to your city. The performer is very popular and known for putting on an excellent show. The ticket to the event needs to be picked up at the box office on the morning of the performance, which will mean an extra, potentially time-consuming trip to get the ticket.

Imagine that you have been offered [you have] a ticket for a not-so-known performer who is touring around the country and coming to your city. The performer is not especially popular or known for putting on a particularly excellent show. The ticket to the event needs to be picked up at the box office just before the performance, which will mean that getting it will be easy and convenient.

Next, all participants responded to two questions to measure the extent to which they thought about the event in a high-level construal fashion or low-level construal fashion. High-level construal representations focus on the ends rather than means (Liberman and Trope 1998; Trope and Liberman 2010). The first question assessed the extent to which participants construe the event thinking about its how-aspects or its why-aspects (“When you think about the event ticket you consider buying [selling], do you think more about how one would go to the event or why one would like to go to the event?” Participants moved the slider on the screen to indicate their answer (0 = how to go to the event, 100 = why to go to the event). The second question assessed the extent to which participants think of the process of getting to the event or the end-state of watching the event (“When thinking about the performance for which you consider selling the ticket, you can think of the process of getting to the performance hall (e.g., getting the tickets, getting to the show, etc.) and the end-state of watching the event once you are in the performance hall (e.g., experiencing the show, etc.). Which one is more in line with your thinking of the event?” (0 = the process, 100 = the end-state). These two items were averaged (r = .30) to create a measure of construal level (higher level of this measure indicates a higher level of construal).

Then, those in the buying [selling] condition provided their maximum buying [minimum selling] prices by responding to the following question: “If you were to buy [sell] this ticket, how much would your maximum [minimum] price be? ___.”

Finally, all participants responded to an open-ended question that asked them to describe the event for which they are considering buying/selling the ticket with a few sentences. The study ended with the collection of demographic
irMAk, waksLak, and trope

measures. Given that the study was conducted online through the MTurk website with a diverse set of participants, we used participants’ responses to the open-ended question and English-speaking ability to assess whether they fully understood the description of the event and procedure of the study. Eight participants did not comprehend the description of the event and four participants’ first language was not English; these 12 participants were excluded from the study (including these participants in the analyses does not significantly change the results).

Results and Discussion

To explore the moderating role of construal-feature valence in the seller-buyer price discrepancy, we conducted an ANOVA with role and feature conditions as the independent variables and the price of the ticket as the dependent variable. The results showed a main effect of role ($F(1, 239) = 5.25, p < .05$), indicating that selling prices ($M = 60.80$) were higher than buying prices ($M = 46.30$), a main effect of feature ($F(1, 239) = 79.16, p < .01$), indicating that the ticket to a performance superior on the desirability aspect was priced higher ($M = 79.60$) than the one superior on the feasibility aspect ($M = 26.10$), and a significant interaction of role and feature ($F(1, 239) = 3.96, p < .05$), demonstrating that selling prices were higher than buying prices when the performance was described superior on the desirability aspect and inferior on the feasibility aspect ($M_{seller} = 92.00; M_{buyer} = 66.40; p < .01$), whereas there was no significant difference between selling and buying prices when the performance was superior on the feasibility aspect and inferior on the desirability aspect ($M_{seller} = 26.90; M_{buyer} = 25.10; p > .80$). Results thus replicated the pattern we found in the earlier studies (see fig. 4).

We next turned our attention to the mediating role of participants’ construal of the event in this pattern. Since feature moderates the effect of role on price such that there is only a difference between selling and buying prices in the superior desirability condition, the mediating effect of construal level is expected to be observed only in this superior desirability condition. Therefore, we tested the relationships among various factors through a moderated mediation analysis by following Hayes (2012, model 15; see fig. 5) and used a bootstrapping procedure that generated a sample size of 5,000 to assess the regression models. This model estimated the effect of role on price directly as well as indirectly through construal level, with both direct and indirect effects moderated by feature. The mediating effect of construal level is modeled as moderated by feature. We coded role as 0 for buyers and 1 for sellers. Similarly, feature was coded as 0 for superior feasibility condition and 1 for superior desirability condition. Construal level was mean-centered. The first part of the model regressed construal level on role and showed a significant main effect of role ($\beta = 3.06, t(239) = 1.94, p = .05$). The second part of the model regressed price on role, feature, construal level, the interaction of role and feature, and the interaction of construal level and feature. The results revealed a significant interactive effect of construal level and feature ($\beta = .25, t(239) = 1.96, p = .05$), whereas the interactive effect of role and feature was marginally significant ($\beta = 5.43, t(239) = 1.81, p = .07$). Further, the last part of the model that shows direct and indirect effects showed that the conditional direct effect of role on price was significant in the superior-desirability condition ($\beta = 12.24, t(239) = 2.98, p < .01$), but not in the superior-feasibility condition ($\beta = 1.38, t(239) = .31, p > .75$). Importantly, the bootstrapping analysis showed that the conditional indirect effect of role on price was significantly mediated by construal level in the superior-desirability condition ($\beta = 1.25$), with a 95% confidence interval excluding zero ($-0.11, 0.044$). Taken together, these results suggest that role’s direct effect on price is mediated by feature and role’s indirect effect on price is mediated by construal level and moderated by feature (Hayes 2012; see fig. 5).

The results of this study augment those of the previous studies in several ways. First, we found that selling prices were higher than buying prices when the event was superior on the desirability aspect and inferior on the feasibility aspect, and selling and buying prices were not different from each other when the event was superior on the feasibility aspect and inferior on the desirability aspect. Second, we demonstrated a moderated mediation such that role’s effect on price is mediated by construal level and moderated by feature.

**General Discussion**

In the present research, we presented a CLT approach to seller-buyer price discrepancy by demonstrating that selling and buying prices are influenced by the value of products’
low and high-level construal features. We first showed that sellers construe products at a higher level than buyers and owners do (study 1). Based on this, we predicted that products whose attractiveness derives from high-level construal features will be evaluated more positively by sellers than buyers, and that this discrepancy will be diminished for products whose attractiveness derives from low-level construal features. In line with this prediction, selling prices were higher than buying prices when the primary (goal-relevant) aspects of the product were superior and the secondary (goal-irrelevant) aspects of the product were inferior, but not vice versa (study 2, study 4). Furthermore, we expected that focusing individuals on an item’s (positive) low-level features versus its (positive) high-level features would dilute valuation of an item for sellers (for whom low-level features are a critical source of value) but not for buyers (for whom low-level features are a critical source of value); in line with this, focusing individuals on a product’s desirability-related aspects rather than the same item’s feasibility-related aspects reduced differences in selling and buying prices (studies 3A and 3B). Finally, we demonstrated that the effect observed in previous studies moderates the mediating effect of sellers’ and buyers’ differential construal level of the product on price, lending further support to the current framework (study 4).

The current results contribute to our understanding of the seller-buyer price discrepancy. Similar to our account, prior research on seller-buyer price discrepancies (Boyce et al. 1992; Irwin 1994) suggests that sellers (vs. buyers) are more likely to focus on prominent aspects of products such as their moral attributes. Specifically, in a series of experiments Irwin (1994) showed that sellers set a higher price for environmental items such as trash cleanup services than do buyers and found that sellers care more about moral aspects of the product than do buyers. Our CLT account is consistent with these findings as moral factors are primary, high-level construal aspects of products (Eyal and Liberman 2010); from our perspective, these findings regarding moral attributes are likely one implication of sellers’ and buyers’ differential level of construal of objects. Consequently, we generalize these earlier findings by showing that other prominent, defining attributes such as an item’s desirability, not just an item’s moral aspect, are increasingly focused on by sellers and help to heighten disparities in seller-buyer prices.

On the other hand, our construal-level approach has both similarities to and differences from recent loss aversion based approaches to the seller-buyer price discrepancy. For instance, Carmon and Ariely (2000) demonstrate that sellers focus on the product they give up in the exchange and buyers focus on the money they pay for the product. Given that a focus on the product emphasizes the benefit received from the product (i.e., a desirability aspect) and expenditure for the product is related to the process of receiving the product (i.e., a feasibility aspect), these results are consistent with our proposition. Also in line with our account, prior research found that sellers (vs. buyers) focus more on a product’s value-increasing and positive aspects (Johnson et al. 2007; Nayakankuppam and Mishra 2005), which are generally represented by high-level construals that are the primary conveyers of value (Sagristano, Trope, and Liberman 2002). On the other hand, our CLT-based explanation is somewhat different from these accounts in that we argue that buyers increasingly weight low-level construal aspects, instead of value-decreasing and negative aspects. Low-level construal aspects need not be value-decreasing or negative. These aspects may also add value to the product; in some cases, they may do so as much as the high-level construal aspects. Indeed, we contend that when individuals start contemplating buying and using the item, low-level aspects become as valuable as high-level aspects.

One important methodological point that may be further relevant to this discussion is the way seller and buyer roles are assigned in our studies versus earlier studies. In our studies participants assumed the buyer role and evaluated the item from a buyer’s perspective (i.e., they had some stake in the exchange and made the first step in contemplating buying the product). To the extent that people contemplate buying the object, they get attached to it (Ariely

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**FIGURE 5**

THE FRAMEWORK FOR MODERATED MEDIATION (STUDY 4)
and Simonson 2003; Carmon, Wertensbarch and Zeelenberg 2003). Such prefatal ownership makes buyers likely to represent the item at a lower level of construal as owners do. Earlier studies, in which people are merely asked to state their buying prices for an object, may not create this type of attachment and ownership. If “buyers” in those studies are not actually considering buying the object, they may find reasons to keep the status quo by finding reasons not to buy it (e.g., focus on the negative aspects of the object; Nayakankuppam and Mishra 2005). Future research may investigate how the steps of the buying process change the focus of buyers. At the earlier stages, where individuals have not yet assumed the buyer role, status quo may influence their evaluation in such a way that they try to find reasons not to buy the product and focus on value-decreasing and negative aspects of the product (Johnson et al. 2007; Nayakankuppam and Mishra 2005). As people get more involved in the buying process, they may contemplate buying and using the product, focusing on the low-level construal aspects of the product. Our CLT account may be more relevant to the seller-buyer price discrepancy in such cases.

The present research contributes to CLT (Trope and Liberman 2003) as well. Although CLT started as a theory of temporal distance (Trope and Liberman 2003), recent research has explored a wider set of precursors of construal level (see Trope and Liberman 2010). The current research adds to this framework by demonstrating that it is not only the current states of events and items, but also the imagined change in the positions of these events and items that may lead to differences in mental representations. Specifically, while the item’s current position did not change in our studies (i.e., it was still possessed by its current owner), the potential change in its position (i.e., its being sold or bought) apparently altered the mental representation of the item. Supporting this contention, in our first study we found that owners’ construal level of the item showed the same pattern as that of buyers. Given that both owners’ and sellers’ current position was owning the item, this underlines that it is sellers’ anticipation of the product moving away from the self, thus their lower likelihood of using the item, that influences their adopted construal level.

On a related point, at first glance, the current argument about buying versus selling and construal level may seem contradictory to the literature on the mere-ownership effect (Beggan 1992), which states that owning an item increases attachment to the item, something that is likely to decrease the psychological distance between the item and its owner. Given that such proximity is related to low-level construal representation, one might imagine that sellers adopt low-level construals of the items that they own. Indeed, it may be true that owning is associated with feelings of proximity; our focus, however, is on what happens when one considers selling the product. In fact, one of the fundamental differences between the literatures on the endowment effect and the mere-ownership effect is that the endowment effect focuses on the valuation of products when they are considered to be sold and bought (i.e., the trade of products between people), whereas the mere-ownership effect is about the valuation of owned items in the absence of considerations of selling (Beggan 1992). As such, because there is no consideration of transfer of the product from the owner to another person, we would expect distance to play a very different role in the mere-ownership effect. Supporting this argument, recent research suggests that the main effect of endowment is to increase the pain of parting with a possessed object, rather than increase the attachment to and appeal of an owned object (Chatterjee, Irmak, and Rose, forthcoming; Liersch et al. 2011; see also Morewedge et al. 2009). Further, in line with these emerging findings, in study 1 we found owners’ construal of the object to be similar to buyers’, rather than sellers’.

It is worthwhile to note here that one may suggest that manipulation of seller versus owner role, rather than seller versus buyer role, may be sufficient to produce the effect we observed. Since our focus in this paper was on the moderating role of the construal level in the seller-buyer price discrepancy (i.e., comparison of sellers and buyers) we did not explore this possibility. Similarly, future research can examine the characteristics of the buyer role to test whether buyers of a product think more concretely about the product than people who do not consider buying the product. Such explorations may shed further light into the process of the endowment and mere-ownership effects.

Findings of our research have important implications for marketers and consumers. If sellers’ and buyers’ differential mental representation of products makes them attend to different aspects of products and influence their product valuation, then making specific product features salient during the trade may affect the possibility of transaction taking place and heighten or lower the transaction price. Marketers often promote the primary, desirability-related aspects of their products; however, our findings suggest that secondary aspects of a product are an important concern of buyers when evaluating a product. Similarly, when selling their own products (e.g., online, at flea markets), consumers often focus on the desirability aspects, rather than feasibility aspects of their own products. Marketers and consumers need to take into account that buyers may be contemplating the usage situation and may care about both primary and secondary aspects of the product.

In summary, across a series of four studies we provide evidence that the difference in sellers’ and buyers’ mental representation of products has a significant role in seller-buyer price disparities. Although previous research has examined the seller-buyer price discrepancy from multiple angles, the current research offers new insight into processes promoting it and new practical suggestions for minimizing it. Our belief is that there is still much to learn about this fundamental effect, and hope that the current research provides an additional step toward understanding this critical phenomenon.

REFERENCES


