

# Focusing on the Forgone: How Value Can Appear So Different to Buyers and Sellers

ZIV CARMON  
DAN ARIELY\*

We propose that buying- and selling-price estimates reflect a focus on what the consumer forgoes in the potential exchange and that this notion offers insight into the well-known difference between those two types of value assessment. Buyers and sellers differ not simply in their valuation of the same item but also in how they assess the value. Buyers tend to focus on their sentiment toward what they forgo (typically, the expenditure), and buying prices are thus heavily influenced by variables such as salient reference prices. By the same token, sellers tend to focus on their sentiment toward surrendering the item, and selling prices are hence more heavily influenced by variables such as benefits of possessing the item. Four studies examining buying- and selling-price estimates of tickets for National Collegiate Athletic Association basketball games offer consistent support for these ideas. The studies show that naturally occurring differences among respondents in attitudes relating to the tickets that sellers forgo (e.g., significance of the game) corresponded more closely to variation in selling prices than in buying prices. Conversely, measures relating to the expenditure (e.g., respondents' concern with money) corresponded more closely to buying prices than to selling prices. Using controlled manipulations we then showed that changes in aspects relating to the game (e.g., expected climate in the stadium) affected selling prices more than buying prices, but changes relating to the expenditure (e.g., list price of the ticket) influenced buying prices more than selling prices. We also showed that drawing attention to the benefits of possessing a ticket before asking for the price estimates influenced buying prices more than selling prices, supporting our claim that otherwise these benefits are naturally more salient to sellers than buyers. Similarly, drawing attention to alternative uses of money before asking for price estimates influenced selling prices more than buying prices.

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The lowest price at which consumers agree to part from a good (selling price) is often considerably higher than the highest price at which they agree to acquire the same item (buying price). For instance, Heberlein and Bishop (1985) found that on average, people were willing to pay \$31 for a particular hunting permit but were not willing to let go of the same permit for less than \$143. Thaler (1980) termed this price gap the endowment effect, suggesting that ownership of an item appears more valuable to an owner than to a prospective owner.

This gap between selling and buying prices has been very

extensively studied because of its conceptual and practical significance (Casey 1995; Sayman 1997). It is conceptually interesting because it conflicts with the intuitive notion that the amount a consumer is willing to exchange for a good reflects the value this consumer places on having that item. Thus, controlling for obvious economically relevant factors such as transaction costs, strategic misrepresentation, liquidity effects, or nonrandom ownership distribution, consumers' selling and buying prices should be equal. The reasoning is that both presumably reflect the perceived monetary value (or net benefit) of owning the good. Because marketing-mix and public policy decisions often rely on such measures, the gap is also of significant practical concern (see, e.g., Anderson, Jain, and Chintagunta 1993; Carmon and Simonson 1998; Contingent Valuation Panel 1993; Hausman 1993).

A well-known experimental illustration of the gap compares two valuations of a mug—those of people who are first given the mug (“sellers”) and those of people who are not given the mug (“buyers”). Sellers are asked about the lowest sum for which they would agree to exchange the

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\*Ziv Carmon is associate professor of marketing at INSEAD, Boulevard de Constance, 77305 Fontainebleau, France (ziv.carmon@insead.fr). For information about him see [www.insead.fr/facultyresearch/marketing/carmon/](http://www.insead.fr/facultyresearch/marketing/carmon/). Dan Ariely is Sloan Career Development Professor of Management Science at the Sloan School of Management, Massachusetts Institute of Technology, E56-329, Cambridge, MA 02142 (ariely@mit.edu). For information about him see [web.mit.edu/ariely/www](http://web.mit.edu/ariely/www). The authors contributed equally to the article and conducted much of this research while they were affiliated with Duke University. They thank the editor, the associate editor, and the reviewers for helpful comments.

mug, and buyers are asked about the highest sum they would exchange for the mug. The average selling prices in this setting are typically more than twice as large as the average buying prices (e.g., Kahneman, Knetsch, and Thaler 1990). Note that this gap has been shown in a variety of settings, including ones that carefully controlled for obvious economically relevant differences between buyers and sellers, such as strategic misrepresentation and income effects (Casey 1995).

The gap between selling and buying prices is typically described as a manifestation of loss aversion (cf. Bar-Hillel and Neter 1996). Thus, when an item is a part of one's endowment, giving it up is foreseen as a loss, whereas passing up the opportunity to obtain the same item is perceived as a forgone gain. According to the basic idea of loss aversion—that losses have greater hedonic impact than gains (Kahneman and Tversky 1979; Tversky and Kahneman 1991)—letting go of an item is more painful than not obtaining this same item. The gap between selling and buying prices presumably reflects this difference in pain.

In this article we seek further insight into the difference between buying and selling prices. We begin with the basic notion that consumers, be they buyers or sellers, tend to focus attention on what is forgone in the potential exchange. Based on this notion we predict that buyers emphasize their sentiment toward the expenditure, whereas sellers stress their attitude toward giving up the item. This difference in the perspective of a buyer and a seller is significant because it influences how the valuation is constructed. Buying prices, on the one hand, tend to be more heavily influenced by expenditure-related factors, such as reference prices. Selling prices, on the other hand, tend to be more heavily influenced by attitudes toward forgoing possession of the good, such as not getting to enjoy its benefits. In other words, we suggest that some aspects of the exchange draw more attention and have greater impact on buying prices than on selling prices, and the opposite is true of other aspects of the exchange.

In the next section we present the notion that consumers focus on what is forgone in the exchange, and we explain how this idea offers insight into the difference between selling and buying prices. We then describe four empirical studies that offer consistent support for our ideas and conclude with a summary and discussion of our findings.

### **FOCUSING ON FORGONE OUTCOMES: IMPLICATIONS FOR BUYERS AND SELLERS**

In this section we build upon a simple notion whereby forgone outcomes tend to be particularly salient, to better understand the difference between buying and selling prices. Considerable evidence suggests that evaluations of a new state tend to focus on what would otherwise happen (i.e., what could have been but will not) more than on what would happen (what will be). Such a tendency to focus on forgone outcomes before choosing a course of action can be rea-

sonable and adaptive (Sanna 1996), as it can foster learning (Lewin 1935) and may reduce future regret (Festinger 1964).

The resulting difference between buyers and sellers is subtle but important. As sellers forfeit an item (or an experience) and buyers pay for it, different attributes (features of the respective forfeiture) are salient to sellers and buyers. Focusing on forgone outcomes, sellers pay close attention to forfeiting the item (or experience) whereas buyers focus on the expenditure. The difference between sellers and buyers, then, is not simply that the former feel more strongly about the value of the traded item, as is commonly believed. Rather, we propose that selling and buying prices emphasize attitudes toward different aspects of the exchange.

In other words, two different information-integration models could give rise to a difference between buying and selling prices.<sup>1</sup> One model assumes a fixed response language shift. According to this mechanism, evoking the role of a buyer or a seller induces a constant upward or downward shift in price response scales, as a result of social norms, for example. This shift is independent of variation in the attributes of the good under study. According to the other mechanism, which is the one we describe and for which we seek support in this article, the shift is not simply in the response language but rather in the information-integration process itself. Thus, prices differ because evoking the role of a buyer or a seller actually causes products to be viewed differently, with each role drawing greater attention to the attributes that are to be given up.

A testable empirical prediction is that buying and selling prices correspond more closely to, and can be affected by, distinct variables. Assessments of expenditures (what buyers typically forgo) are likely to be influenced by salient standards of price comparison, referred to as reference prices (cf. Kalyanaram and Winer 1995; Winer 1986), or mental budgets and accounts (cf. Heath and Soll 1996; Thaler 1985). Evaluation of what consumers give up as sellers, however, can be influenced by such factors as the perceived importance of ownership or the attitude toward surrendering the item (cf. Kahneman and Knetsch 1992; Kahneman and Miller 1986). Thus we predict that differences (naturally occurring or induced by manipulation) in variables, such as the list price of an item, will correspond more closely to variation in buying prices than in selling prices. However, differences in variables, such as the pleasure one can expect from consuming the item, will correspond more closely to variation in selling prices than in buying prices. Note that this notion does not account for the direction of the gap between selling and buying prices (that selling prices are generally higher than buying prices). Rather, it predicts variation in the relative magnitude of the two price measures.

Next we present four empirical studies we conducted that tested our basic proposition in a variety of ways. In these studies we obtained buying- and selling-price estimates of tickets to National Collegiate Athletic Association (NCAA) basketball games from student respondents. We examined

<sup>1</sup>We thank the associate editor for proposing this phrasing.

correspondence between selling and buying prices and aspects that closely relate either to what is obtained or what is forgone in the exchange. Study 1 relied on correlational measures of naturally occurring differences among our respondents. Subsequent studies added controlled experimental manipulations to more directly test our ideas.

## STUDY 1

### Subjects

This first study was more a field survey than an experiment. It was conducted one day before the team representing Duke University, whose students served as our respondents, participated in the NCAA Final Four men's basketball tournament. A hundred names of potential subjects were randomly drawn from a list of students, who had signed up for a lottery determining who would be eligible to purchase a ticket to the tournament. Ninety-three respondents (those we were able to locate) were interviewed over the phone by research assistants who were unaware of the study's hypotheses.

### Method

We selected tickets to the NCAA Final Four basketball tournament as stimuli, since we knew from previous experience that they are viewed as relevant and interesting by our subject population. Participants in this study were asked the questions described below. For the sake of clarity we describe the study in two separate parts. Each presents a subset of the measures we used, our predictions about them, and the corresponding results. Part 1 of study 1 describes three basic price measures and examines how they correspond to one another. Part 2 of study 1 describes three independent attitudinal measures and how they correspond differently to the selling- and buying-price measures.

### Basic Measures (Part 1 of Study 1)

Participants were first asked to indicate their selling and buying prices. The buying-price question asked for the highest price the respondent would pay for a ticket (to the NCAA Final Four basketball tournament), assuming s/he did not have a ticket. The selling-price question asked for the lowest price at which the respondent would agree to sell a ticket assuming s/he had one.<sup>2</sup> In addition, respondents were asked to consider the pleasure they would derive from attending the tournament and to think of other items or experiences that could bring them the same amount of pleasure. They were then asked to estimate the expected cost of buying

<sup>2</sup>In all our studies, respondents learned that there would be no opportunity to negotiate or bargain, and they were encouraged to indicate their true assessments. Also, we counterbalanced the presentation order of the price measures in all studies to control for possible order effects. Since we never found significant order effects, subsequent analyses ignored this factor.

**TABLE 1**  
SUMMARY RESULTS FOR STUDY 1

Variable name	10% Trimmed mean (\$)	Median (\$)
Selling price	2,411	1,500
Buying price	166	150
Pleasure equivalent	2,702	1,500

such items or experiences, in a measure we named pleasure equivalent.

### Results (Part 1 of Study 1)

Table 1 presents our results for these variables, including the 10 percent trimmed-mean and median values for these variables. It shows that selling-price estimates were considerably higher than buying-price estimates. The ratio of these prices (a common measure of the gap, computed separately for each respondent) was unusually large, but not beyond other extreme results (cf. Irwin 1994; Kahneman et al. 1990; but also Thaler 1983).

Remember that the proposition we are testing is that buying-price estimates tend to correspond more closely to sentiments regarding the expenditure, whereas selling-price estimates correspond more closely to sentiments toward forgoing ownership of the ticket. Also recall that the pleasure-equivalent question asked how much money would be needed to acquire an item or experience that would provide pleasure equivalent to that expected from attending the tournament. We therefore expected the correlation (across respondents) between pleasure equivalent and selling price to be greater than that between pleasure equivalent and buying price (note that this is a strong test, since the pleasure-equivalent question asks about a buying price rather than a selling price). Also, because we had no reason to expect that respondents' attitude toward giving up the ticket (presumed to be reflected in selling price) would correlate highly with spending attitudes (presumed to be reflected in buying price), we expected a low correlation between buying price and selling price.

Table 2 presents the results. Consistent with our predictions (of low correlation), the correlation between pleasure equivalent and buying price and that between selling price and buying price were not significantly different from zero ( $p = .54$  and  $p = .76$ , respectively). Also as predicted, the

**TABLE 2**  
CORRELATION RESULTS FOR STUDY 1

	Buying price	Selling price
Selling price	.03	
Pleasure equivalent	.07	.55

correlation between pleasure equivalent and selling price was significantly greater ( $p < .001$ ). Note also that the magnitude of pleasure-equivalent estimates was closer to selling price than to buying price (see Table 1).

### Additional Measures (Part 2 of Study 1)

We assessed respondents' attitudes to the two sides of the exchange (basketball and money), with two attitude measures relating to the basketball game (TV watching and game significance) and one relating to the expenditure (flight price). In the TV-watching question we asked how many of the team's games they had watched on television during that season. In the game-significance question we asked respondents to rate the relative significance of attending the tournament compared to other events, on a scale ranging from zero (not significant at all) to 100 (one of the most significant events in my life). For the flight-price measure, we asked respondents to imagine that the tournament was moved from its original East Coast location to California. We then asked about the highest price they were willing to pay for a ticket to a special flight (the only one available) that would arrive in California immediately before the game and depart right afterward (to reduce perceived benefits of the trip itself).

### Results (Part 2 of Study 1)

We anticipated that measures relating to the perceived importance of the tournament (game significance and TV watching) will correspond more closely with selling price than with buying price. We also predicted that flight ticket will correspond more closely with buying price than selling price, since willingness to pay for both the flight and the tournament is presumably influenced by the person's mental budget for such entertainment expenses (cf. Heath and Soll 1996).

To test these predictions we ran a regression model with the logs of the price estimates as the dependent measure and the type of estimate (selling or buying price), game significance, TV watching, and flight ticket as the independent measures. The full model was highly significant ( $R = .78$ ,  $F(7, 106) = 23.3$ ,  $p < .001$ ). Coefficients presented in Table 3, which represent the correspondence between these variables and the logs of buying-price and selling-price measures, were consistent with our predictions. For the selling price we found that TV watching and game significance were statistically significant, whereas the flight ticket was not. Conversely, for the buying price we found that the flight ticket was statistically significant but game significance and TV watching were not. This difference is systematic and consistent with our basic proposition. Thus, factors relating to the benefits one expects from attending the game (TV watching and game significance) correspond more closely with selling price than buying price. Conversely, factors relating to the cost of the item (flight ticket) correspond more closely with buying price than selling price

( $F(1, 106) = 29.37$ ,  $p < .001$ , and  $F(2, 106) = 35.69$ ,  $p < .001$ , respectively).<sup>3</sup>

### Discussion

Consistent with our proposition, buying-price estimates corresponded more closely to variables relating to the expenditure, whereas selling-price assessments corresponded more closely with factors relating to the attitude toward surrendering the ticket, such as the perceived significance of the game to the person.

Additional support for our hypotheses emerged from explanations some respondents provided for their selling- and buying-price responses. The most common explanations for selling price were along the lines of "this is a once in a lifetime opportunity" or "I will never forgive myself if I end up missing a great game." Conversely, the common explanations for buying price were along the lines of "there are lots of other things I could do with my money." This further supports our proposition, since sellers and buyers appear to focus on different aspects of the exchange—sellers concentrate on the act of giving up the ticket and the game they would not attend, and buyers focus on the money they would pay for the ticket.

Further indirect support for our ideas can be found in answers to the flight-ticket measure (10 percent trimmed mean = \$287, median = \$300). The overall willingness to pay for attending the tournament was more than twice as large when it was to be held in California (buying price + flight ticket) instead of its original East Coast location (buying price;  $t(92) = 11.17$ ,  $p < .001$ ). This was true even though respondents were told that the flight would only carry them to the game and back. Hence, consistent with our ideas, respondents' overall buying-price estimate can be significantly increased given a salient "just" cause for it, such as the need to fly to its location. Moreover, the magnitude of the flight-price answers was roughly equivalent to the true cost of a flight to California at the time our study was conducted (roughly \$300). Thus, consistent with our ideas, salient reference prices, such as the "just price" (Winer 1986), may indeed correspond more closely to buying-price estimates' than to selling-price estimates' expected benefits.

An interesting finding not directly related to our predictions was that neither buying-price nor selling-price estimates depended on whether or not the respondent actually owned a ticket. Stated differently, buying-price and selling-price estimates of students who actually owned a ticket did not differ from those of students who were asked to imagine that they did. This finding conflicts with suggestions that an endowment effect requires actual ownership of the item (although some studies have produced results consistent with ours; see Casey 1995; Sen and Johnson 1997; and Wertenbroch and Carmon 1997). It suggests that respondents who projected how they would feel (about owning or not

<sup>3</sup>In all studies, our statistical conclusions hold for both joint and separate models of buying and selling price.

**TABLE 3**  
REGRESSION RESULTS FOR STUDY 1

	Buying price			Selling price		
	Standardized coefficient	t-value	p-value	Standardized coefficient	t-value	p-value
TV watching	.01	.1	.92	.56	6.14	<.01
Game significance	.15	.93	.35	.39	4.27	<.01
Flight ticket	.51	4.28	<.01	.11	1.31	.19

owning a ticket) did not differ from respondents who were actually in that position, thus supporting the validity of our findings.

In conclusion, the results of study 1 support our basic proposition. We find a close correspondence between buying-price estimates and attitudes toward monetary expenditures and between selling-price estimates and attitudes toward the experience that will be lost. Moreover, the explanations some respondents provided for the prices they indicated, as well as the flight-ticket results, are also consistent with our view of the difference between buying- and selling-price measures.

## STUDY 2

To test the robustness of our results, study 2 replicated study 1 nine months later (a different school year) with different respondents. More important, besides using dependent measures for correlational tests of our predictions as in study 1, in study 2 we added experimentally controlled tests of our ideas by manipulating characteristics of the evaluated tickets.

### Method

Four hundred seventy-two students were recruited at three different locations: the student union buildings at Duke University and at the University of North Carolina at Chapel Hill and a tent site at Duke University, where students were camping out to obtain tickets to a major NCAA basketball game.

As in study 1, our stimuli in study 2 were tickets for NCAA basketball games. The study consisted of an orthogonal experimental design, with two factors manipulated across respondents. One factor was the original list price of the ticket (game base value: \$10, \$30, or \$100). The other factor represented the importance of the game (game significance: a regular season game or the final game in the NCAA tournament). Both manipulations were incorporated into the scenario participants initially read.

In addition to the buying-price and selling-price questions, we also asked participants to rate the extent to which they were avid fans of the team compared to other students (level of "fan-ness") and the extent to which they perceived themselves to be concerned with money compared to other stu-

dents (money attitude), and to estimate the number of team-related clothing articles that they owned (team items).

### Results and Discussion

Based on our proposition, we expected the game-base-value manipulation to have greater impact on buying price than on selling price, and conversely, we expected the game-significance manipulation to have greater impact on selling price than on buying price. As a preliminary test of this hypothesis we analyzed the 3 (game base value)  $\times$  2 (game significance) experimental design using a simple ANOVA, once for selling price and once for buying price. Consistent with our proposition, for selling price we found a stronger effect for game significance than for game base value ( $\lambda = 20.4$  vs. 12.1), and for buying price we found a stronger effect for game base value than for game significance ( $\lambda = 103.7$  vs. 15.3). Testing these results in a single model yielded the expected two-way interaction ( $F(2, 480) = 20.6, p < .01$ ), indicating that game significance had greater impact on selling price while game base value had greater impact on buying price.

For a more complete analysis, we used a regression model, which included both the manipulated factors and the measures of naturally occurring differences. Before describing the results, we will briefly review our predictions: Recall that in addition to the experimental manipulations, we measured naturally occurring differences (in money attitude, team items, and fan-ness). We expected variation in money attitude to correspond more closely with variation in buying price than in selling price and, conversely, fan-ness and team items to correspond more closely with selling price than buying price. Furthermore, since we believed that respondents in the three different locations would differ significantly in their attitudes toward the game (e.g., students who camp out for tickets are likely to be more avid fans), we included a variable named survey location in the analysis. Since we expected that survey location would reflect attitudes toward the game more than attitudes toward monetary expenditures, we predicted that this variable would correspond more closely with selling price than with buying price.

We used the standardized price estimates as the dependent measure in our analysis and the type of estimate (selling price or buying price), game significance, game base value, fan-ness, team items, money attitude, and survey location

**TABLE 4**  
REGRESSION RESULTS FOR STUDY 2

	Buying price			Selling price		
	Standardized coefficient	t-value	p-value	Standardized coefficient	t-value	p-value
Survey location	.08	2.5	.02	.12	3.7	<.001
Game significance	.08	2.5	.02	.11	3.5	<.001
Fan-ness	.06	1.9	.06	.07	2.1	.04
Team items	.05	1.5	.14	.08	2.5	.02
Game base value	.18	5.4	<.001	.03	1.0	.31
Money attitude	.09	2.8	<.01	.02	.6	.52

as the independent measures. The full model was highly significant ( $R = .58, F(13, 924) = 25.7, p < .01$ ). The relative magnitude of the standardized coefficients for selling price versus buying price was as we predicted. Thus, aspects relating to significance of the tournament (top four variables in Table 4) corresponded more closely to selling price than to buying price, and the opposite was true for aspects relating to the monetary expenditure (bottom two variables in Table 4). Specifically, the coefficients for selling price were larger for the following variables: survey location, game significance, fan-ness, and team items. The coefficients for buying price were larger for the following variables: game base value and money attitude ( $F(2, 924) = 25.8, p < .01$ , and  $F(2, 924) = 9.8, p < .01$ , respectively).

To summarize, study 2 offers direct support for our predictions with experimentally manipulated variables as well as with naturally occurring differences. Specifically, we found that changes in game significance influenced selling-price more than buying-price estimates, whereas the opposite was true of changes in game base value. Results of our attitude measures and the natural manipulation of survey location were also consistent with our proposition, effectively replicating the findings of study 1. Specifically, measures relating to monetary aspects of the exchange corresponded more closely to buying-price estimates, whereas measures of aspects reflecting benefits of possessing the ticket corresponded more closely to selling-price estimates.

### STUDY 3

In study 3 each respondent evaluated an array of tickets. Our intention was to supplement the between-respondent comparisons of studies 1 and 2 by using within-respondent comparisons in study 3. This allowed us to test our ideas with a different methodological approach and to control factors relating to respondent heterogeneity. In addition, study 3 expanded the number of attributes we manipulated and tested. The expenditure-related attributes included both the base price of a ticket and the rebate that was offered. The experience-related attributes included the importance of the game and the climate in the stadium.

### Method

We asked the 75 students recruited for this study to indicate buying and selling prices of a factorial array of nine tickets for NCAA basketball games, which we described on four dimensions. Two dimensions related to the expenditure (what is forgone by buyers): the original list price of the ticket (game base value: \$15, \$30, or \$45) and a rebate offered to ticket holders attending the game (rebate: \$2.50, \$10, or \$15). Two other dimensions related to the experience (forgone by sellers): the importance of the game (game significance: a regular season game, Atlantic Coast Conference [ACC] tournament final game, or the NCAA tournament final game) and the expected climate in the stadium during the game (climate: 70° and low humidity, 95° and low humidity, or 95° and high humidity). The nine profiles viewed by subjects corresponded to a minimum orthogonal (resolution III) main-effects fraction of a 3<sup>4</sup> factorial design. This design allowed for the estimation of all four attribute main effects under the assumption that all two-way and higher interactions among attributes were zero. Subjects evaluated these profiles on two response dimensions, hence “response mode” formed the fifth, fully crossed, within-subjects factor in the overall design.

### Results and Discussion

Based on our ideas, we expected that manipulating expenditure-related dimensions would have greater impact on buying than on selling prices. Conversely, we anticipated that manipulating experience-related dimensions would have greater impact on selling than on buying prices. To examine these issues we subjected buying and selling prices to a repeated-measures ANOVA. If our hypothesis that the pricing perspective (i.e., whether one is a buyer or a seller) will alter the relative sensitivity of subjects to attribute variation is true, we should expect to observe significant two-way interactions between buying/selling perspective and each of the four ticket attributes. Specifically, we expect selling prices to be more sensitive to “game type” and “climate” (what sellers forgo) and buying prices to be more sensitive to face value and rebate (what buyers forgo). The results of this analysis are summarized in Table 5, and the corresponding four two-way interactions are plotted in Fig-

**TABLE 5**  
ANOVA FOR STUDY 3

Effect	<i>F</i> (error <i>df</i> )	<i>df</i>	<i>p</i> ( <i>F</i> )
Perspective	64.87 (74)	1	$p < .001$
Base value	3.54 (148)	2	$p = .03$
Rebate	1.83 (148)	2	$p = .16$
Game type	33.31 (148)	2	$p < .001$
Climate	4.23 (148)	2	$p = .02$
Perspective $\times$ level of base value	5.02 (148)	2	$p = .008$
Perspective $\times$ level of rebate	5.28 (148)	2	$p = .006$
Perspective $\times$ level of game type	6.80 (148)	2	$p = .002$
Perspective $\times$ level of climate	6.01 (148)	2	$p = .003$

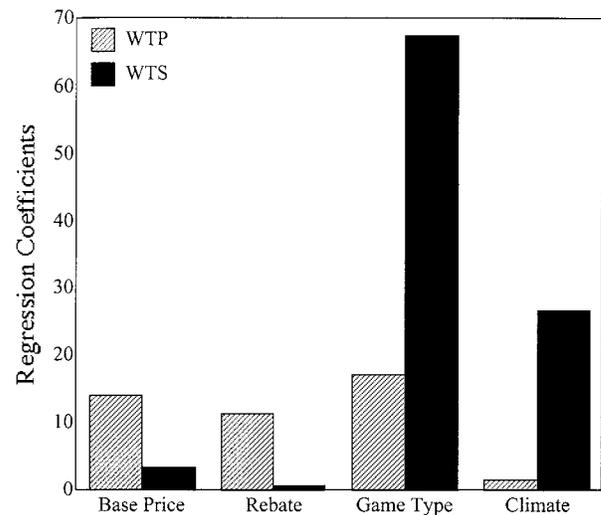
ure 1. As predicted, each of the four two-way interactions was significant, and Figure 1 suggests that the interactions were in the predicted directions. In particular, sellers showed considerably more sensitivity to variations in game type and climate while buyers showed considerably more sensitivity to variations in ticket value and rebate. Note that the perspective manipulation seemed to have a greater effect on altering the influence of the nonmonetary factors that are forgone by sellers than the monetary factors that are foregone by sellers (and gained by buyers).

To provide an alternative approach to this analysis, we regressed each respondent's two sets of nine responses on the values characterizing the corresponding tickets (estimate =  $\beta_{\text{game base value}} + \beta_{\text{rebate}} + \beta_{\text{game significance}} + \beta_{\text{climate}}$ ). The coefficients resulting from the 150 regressions (one for each of the 75 subjects from each pricing perspective) were the basis for our analysis. Using the estimated coefficients, we first analyzed the data in a fully within-ANOVA design according to the three factors of the experiment. The first factor was whether the tickets were evaluated from a viewpoint of a prospective buyer or seller. The second factor was whether the attributes were expenditure or experience related. The third factor was a replication factor, reflecting two expenditure-related attributes (game base value and rebate) and two experience-related attributes (game significance and climate). The results showed significant main effects for perspective and for type of attribute ( $p < .05$ ). More interestingly, we also found a significant interaction between the perspective of the subjects (buyers or sellers) and the type of attributes. As Figure 2 illustrates, standardized coefficients for selling-price estimates were significantly larger for experience-related attributes, whereas for buying-price estimates standardized coefficients were larger for expenditure-related attributes ( $F(1, 73) = 12.89$ ,  $p < .001$ ).

To summarize, study 3 further supports our notion that sellers and buyers focus on different aspects of the exchange corresponding to what each stands to forgo. Again, we find that sellers place greater weight on experiential aspects of the good (what they stand to forgo), whereas buyers em-

**FIGURE 1**

AVERAGE REGRESSION COEFFICIENTS FOR STUDY 3



phasize aspects of the expenditure (what they stand to forgo). Unlike studies 1 and 2, in study 3 we based our conclusions on within-respondent comparisons of manipulated aspects of the tickets.

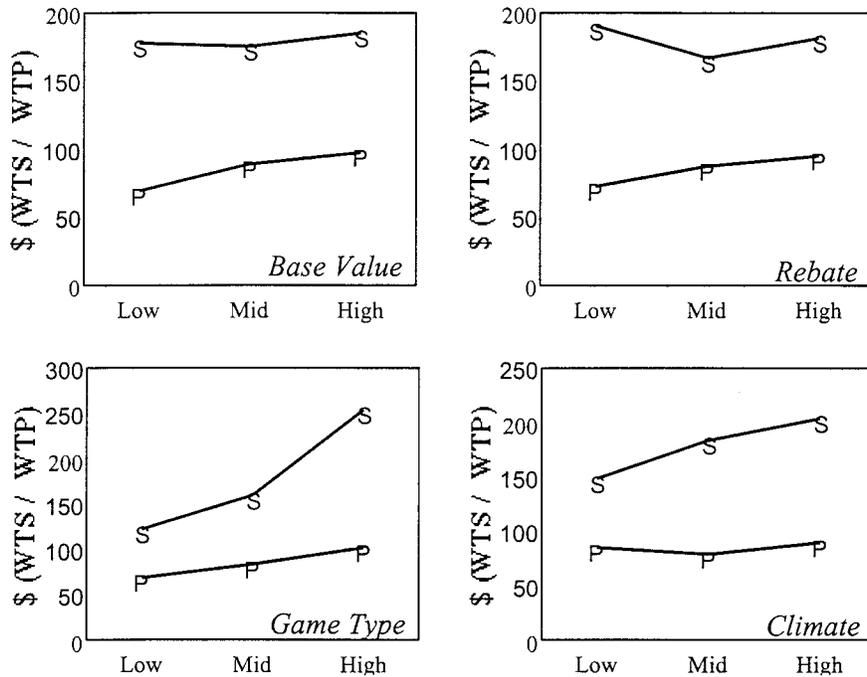
## STUDY 4

Study 4 added a more direct test of our explanation that consumers focus on what they stand to forgo in the exchange and that this underlies differences between selling and buying prices. Before asking respondents for their price estimates in study 4, we manipulated the extent to which they attended to aspects of the expenditure (what buyers stand to forgo) and benefits of possessing a ticket (what sellers stand to forgo). To understand our reasoning recall that according to our account, selling-price estimates naturally draw greater attention to benefits of possessing a ticket than to aspects of the expenditure. Conversely, buying-price estimates naturally attract greater attention to aspects of the expenditure than to benefits of possessing a ticket.

We anticipated that asking respondents to elaborate on the exchange would impact aspects that consumers otherwise tend to neglect more than it would affect aspects on which consumers naturally focus. To explain, we predicted that respondents tend to naturally focus on aspects of the exchange that they are about to forgo. Therefore, the marginal impact of having them consider their attitudes toward these aspects should be smaller compared to the marginal impact of having them consider their attitudes toward any aspects they naturally neglect (what they stand to gain). Specifically, we predicted that attending to aspects of the expenditure would have greater impact on selling than on buying prices, whereas attending to benefits of possessing

FIGURE 2

MEAN BUYING PRICES AND SELLING PRICES AS A FUNCTION OF THE LEVEL OF EACH ATTRIBUTE CHARACTERIZING THE TICKET IN STUDY 3



NOTE.—WTP and P denote mean buying prices; WTS and S denote mean selling prices.

a ticket would have greater impact on buying than on selling prices.

Method

Two hundred fifty students waiting in line to purchase tickets to a major NCAA basketball game were recruited for this study, which took a few minutes to complete. We used a 2 × 2 orthogonal between-subject experimental design, manipulating the degree to which respondents attended to aspects of the expenditure (attend- $\$$ : low or high) and the degree to which respondents attended to benefits of possessing a ticket (attend-benefit: low or high). In the high-attention conditions we asked respondents to think and rate the importance of several reasons related to experience or expenditure before stating their buying and selling prices. Statements in the high-attention-expenditure manipulation focused on alternative uses of money (e.g., “I have many uses for money,” and “My budget does not allow me to have everything I want”). In the high-attention-benefits condition, statements focused on the benefits of possessing a ticket (e.g., “I love college basketball,” and “A game like this can be a unique experience”). After considering these reasons and evaluating their importance, respondents were asked to indicate the lowest selling price and highest buying price they would find acceptable for the ticket. Again, pre-

sentation order (of the reasons and price measures) was counterbalanced across respondents.

Results and Discussion

Recall that we expected the manipulation calling attention to benefits of a ticket (attend-benefit) to have greater impact on buying prices than on selling prices. However, we expected the manipulation calling attention to the expenditure (attend- $\$$ ) to have greater impact on selling price than on buying price. To test this hypothesis, we analyzed the 2 (attend- $\$$ ) × 2 (attend-benefit) experimental design using a simple ANOVA. We conducted this analysis once for selling prices and once for buying prices.

As predicted, ANOVA for selling prices showed a greater effect for attend- $\$$  than attend-benefit ( $\lambda = 19.7$  vs. 1.2) and a main effect for attend- $\$$  ( $F(1, 228) = 19.7, p < .01$ ) but not for attend-benefit. Also as predicted, for buying prices we found a greater effect for attend-benefit than attend- $\$$  ( $\lambda = 3.2$  vs. 1.5) and a main effect for attend-benefit ( $F(1, 228) = 3.2, p < .05$ ) but not for attend- $\$$ . Testing these factors in a single model yielded the expected two-way interaction ( $F(1, 469) = 14.5, p < .01$ ), indicating that attend- $\$$  had greater impact on selling price while attend-benefit had greater impact on buying price.

To summarize, in study 4 we show that highlighting ex-

penditure-related aspects of the exchange before asking respondents for their price estimates affected selling prices more than buying prices. However, highlighting attitudes toward forgoing the item before asking respondents for their price estimates influenced buying prices more than selling prices. These results directly support our proposition that in a buying mode, consumers naturally focus their attention on aspects of the expenditure, while in a selling mode they naturally tend to focus on aspects relating to their attitude toward giving up the item.

## CONCLUSION

### Summary

We explored the difference between consumers' buying- and selling-price estimates, manifested in the well-known gap between them. The prevalent account for this gap is based on a simple interpretation of loss aversion, whereby selling an item is perceived as a loss, whereas not buying that item is perceived as a forgone gain. Thus, the premium that sellers demand (compared to buyers) is presumed to reflect the greater hedonic impact of the loss that these sellers experience (cf. Bar-Hillel and Neter 1996).

Our basic prediction was that sellers and buyers tend to focus on outcomes of the exchange that reflect what they stand to forgo. As a result, buying and selling prices reflect greater attention to, and impact of, aspects of the exchange that correspond to what the consumer stands to forgo. We tested this proposition in four studies of value assessments of tickets to NCAA basketball games. Together, these studies offer the first strong demonstration of asymmetric buying-/selling-attribute processing effects that we are aware of.

In study 1 we showed that buying-price and selling-price estimates correlated poorly, consistent with our notion that the two measures are significantly different. Moreover, the results supported our suggestion that in both perspectives consumers attend to what they stand to forgo in the exchange. One example of these results is the high correspondence between measures relating to benefits of a ticket (game significance and TV watching) and selling prices. Another example was the high correspondence between the attitudes relating to the expenditure (flight ticket) and buying prices. Moreover, pleasure equivalent, the expected cost of items or experiences that could provide the same pleasure as the basketball game ticket, corresponded highly with selling price but not with buying price. Some respondents' explanations for their estimates were also consistent with our ideas, as sellers expressed reluctance to forgo the ticket rather than worrying about opportunity costs, whereas buyers were aware of the opportunity costs connected with obtaining the ticket, rather than of its potential benefits.

Study 2 tested our ideas more directly with controlled manipulations of the list price of the ticket (game base value) and the importance of the game (game significance). As predicted, the game-base-value manipulation affected buying more than selling price, whereas the game-significance manipulation affected selling more than buying price. Study

2 also replicated the correlational evidence found in study 1, with self-reported measures relating to what sellers and buyers give up in the exchange. For example, a measure of the extent to which one is a fan of the team (fan-ness) corresponded more closely with selling price, whereas the extent to which one is concerned with money (money attitude) corresponded more closely with buying price.

Study 3 examined respondents' cue utilization strategies via within-respondent variation in response to experimentally controlled manipulations. As predicted, the importance of the game (game significance) and the expected climate in the stadium during the game (climate) influenced selling more than buying prices, whereas the original list price of the ticket (game base value) and a rebate offered to ticket holders attending the game (rebate) affected buying more than selling prices.

Study 4 added experimentally controlled manipulations that more directly tested the process underlying our explanation. Results showed that drawing greater attention to aspects of the expenditure before asking for the price assessments influenced selling more than buying prices. Similarly, highlighting aspects relating to benefits of possessing a ticket before asking for the price assessments had greater impact on buying than on selling prices. This differential impact of our attention manipulation more directly supports our proposition that attention differences are partly responsible for the difference between buying and selling prices.

### General Discussion

The notions we proposed elaborate on the simple interpretation of loss aversion, to which the gap between selling and buying prices is typically attributed. That account concentrates on the difference between buyers and sellers in their overall assessments of the item. The more elaborate version we study here points to differences in the effect of loss aversion on particular attributes. Specifically, buyers and sellers focus on aspects of the exchange associated with what they will forgo and differ both in the attention they pay to attributes of the evaluated item and in how they evaluate what they notice (see Casey [1995] for related ideas).

The attention-based interpretation may seem only subtly different from an attribute-based interpretation of loss aversion. In fact, a mathematical model of the differential attention notion, whereby sellers and buyers focus on distinct aspects of the exchange, would not be different from that of the hedonic-impact-difference account of loss aversion—that sellers and buyers attend to the same aspects but perceive them differently. But there is a conceptual and a practical difference between these accounts: For example, as we show in study 4, manipulating the attention paid to aspects of what is obtained in the exchange (which naturally receive less attention according to our account) significantly moderated the difference between selling and buying prices. These results supported both our attention-based explanation and the prediction about attribute-level differences between buyers and sellers.

It is important to remember that our empirical results draw on a particular type of stimulus—basketball tickets—which we believe made the difference between the selling and buying prices particularly clear. Selling prices were very high because to our respondents forgoing a ticket was very undesirable (i.e., the outcome to sellers was particularly undesirable) due to the perceived uniqueness and popularity of the games and the scarcity of such tickets. However, buying prices were fairly low due to the low list price of such tickets and the low cost of salient alternatives (e.g., a video, attending a play, dining out, etc.). Nonetheless, we expect the pattern of our results to generally replicate in different settings, but the magnitudes may often be less substantial. This, however, is an empirical question worthy of future research. As we explain below, such investigations may help identify additional differences between selling and buying prices in different settings.

It is also important to keep in mind that in addition to the focus on the forgone that we studied in this article, a variety of factors (such as liquidity constraints and strategic misrepresentation) can cause a gap between selling and buying prices. Unlike many prior investigations of selling and buying prices (see, e.g., Kahneman et al. 1990), we chose not to carefully control for all such factors. That was because those factors could not parsimoniously account for our central results (e.g., those of studies 3 and 4, as well as some others). Those results relate to predictors of varying magnitudes of this gap, rather than to the existence of a difference between selling and buying prices in and of itself.

An interesting direction for future research would be to explore known differences between selling and buying prices in view of our ideas. For example, Hanemann (1991) proposed that the substitutability of a good often moderates the magnitude of the gap between selling and buying prices. Our view would suggest that substitutability corresponds more closely to characteristics of the good than to those of its cost. In fact, we would offer a more specific and testable prediction whereby the substitutability of a good tends to affect selling prices more than buying prices and therefore moderates the magnitude of the gap between these measures. As this example illustrates, our explanation is not intended to a priori identify which specific variables (relating to what is to be forgone in the exchange) will be significant in a particular situation. But it can offer additional insight once variables are identified (e.g., substitutability).

More generally, the gap between selling and buying prices can reflect multiple factors, some of which operate mostly in unique circumstances. One example is the large gap between selling and buying prices for environmental goods that is thought to partly reflect concerns about environmental preservation. Thus, it has been proposed that selling prices may reflect a “punitive” component for environmental losses, which is independent of the benefits the forgone good could have provided (cf., e.g., Baron and Spranca 1997; Irwin 1994; Kahneman et al. 1990). This is consistent with our view that, more than buying prices, selling prices reflect

attitudes toward the very act of giving up the item, as well as toward salient benefits of owning it.

A complementary way to view variation in the difference between selling and buying prices is that the degree to which consumers attend to the aspect of the exchange associated with what they will forgo is clearly not fixed. Before asking for price assessments in study 4, for example, we directed respondents’ attention to different aspects of the transaction. This simple manipulation significantly reduced the degree to which the subsequent price assessments focused on the undesirable outcome and moderated the magnitude of the difference between selling and buying prices. More generally, whether consumers take the perspective of a buyer or a seller is one factor that affects the saliency of the desirable and undesirable outcomes of an exchange and thus the difference between selling and buying prices. Examples of other factors include the prominence of cues such as reference prices and benefits of the item, whether benefits are probabilistic, goals the consumers face, and characteristics of the item and the consumer (cf. Casey 1995; Dhar and Wertenbroch 2000; Fischer et al. 1999; Shiv and Huber 2000; Strahilevitz and Loewenstein 1998).

Finally, a practical implication of our ideas is that marketers may want to consider influencing consumers’ choices and behavior via the perspective from which they evaluate a transaction. For example, consumers who buy new products can have a different focus (and different evaluations) from those who are upgrading existing products (i.e., giving up current products). Thus, framing new purchases as replacements rather than as new purchases can have strong effects on buying behaviors. By understanding the impact of different characteristics in different exchange frames (such as buying vs. replacing), marketers can increase the value consumers associate with their offerings as well as the purchase likelihood.

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