

Is a good deal always fair? Examining the concepts of transaction value and price fairness

Lan Xia^{a,*}, Kent B. Monroe^{b,c,1}

^a Bentley University, 175 Forest Street, Waltham, MA 02452, USA

^b University of Illinois at Urbana-Champaign, USA

^c Robins School of Business, University of Richmond, 4905 Old Millrace Place, Glen Allen, VA 23059-3415, USA

ARTICLE INFO

Article history:

Received 12 March 2010

Received in revised form 21 May 2010

Accepted 1 July 2010

Available online 15 July 2010

JEL classification:

M3

E3

PsycINFO classification:

3920

2260

Keywords:

Price fairness

Transaction value

Comparative reference

Social comparison

ABSTRACT

Previous research has shown that if consumers are aware that they are paying more than another customer for a similar transaction, then they may perceive the price to be unfair. A concept closely related to fairness is transaction value, defined as consumers' perceptions of the psychological satisfaction or pleasure from taking advantage of a price deal. In this research, we conceptualize that although consumers' perceptions of price fairness and transaction value share many similarities, nevertheless there are also important differences. Using three studies, we empirically examine these differences. We show that although a "bad deal" is typically perceived to be an unfair price, a "good deal" is not necessarily perceived to be the fairest price.

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1. Introduction

Facilitated by the Internet and related price management technologies, the practice of varying prices across different customers and/or over different times for the same product (i.e., dynamic pricing) has become more prevalent. Research has shown that perceived price differences, specifically due to price increases, may induce unfairness perceptions and reduce purchase intentions, preventing sellers from maximizing profits (Kahneman, Knetsch, & Thaler, 1986). A concept that is closely related to price fairness perception is perceived transaction value, which is defined as consumers' perceptions of psychological (dis)satisfaction obtained from the price paid in comparison to a (lower) higher reference price (see Grewal, Monroe, & Krishnan, 1998; Thaler, 1985).

It seems obvious that consumers may be dissatisfied when the price they are paying is more than their comparative reference price. On the other hand, paying a price less than their reference price normally would be attractive to consumers and could induce a positive response from them. For example, suppose you bought a camera for \$150 and learned that another

* Corresponding author. Tel.: +1 781 891 2468; fax: +1 781 788 6456.

E-mail addresses: lxia@bentley.edu (L. Xia), kentmonroe@comcast.net (K.B. Monroe).

¹ Tel.: +1 804 269 5519; fax: +1 804 269 7614.

customer purchased the same camera from the same seller on the same day for \$190. You are probably happy that you paid a lower price (i.e., experienced positive transaction value). However, do you also think it is fair that the other customer paid a higher price than you?

The key question we are asking in this research is whether an apparent good deal (i.e., paying less than others) would always be perceived as fair. If so, then the next question is when would price advantaged consumers perceive a “good deal” to be an unfair or a less fair price? These are the questions we examine in this research.

Most price fairness research has focused on the situation when consumers are price disadvantaged (that is, the price they pay is higher than their reference price). Aside from price promotion research considering the sales effects of prices less than a reference price, little research has examined the effects when consumers learn that they are paying less than another customer. By examining the effects of advantaged price inequity, we further extend our knowledge of the effects of price fairness perceptions. More importantly, by comparing and contrasting the concepts of price fairness and transaction value, we offer additional insights into the psychological processes underlying consumers' evaluations of a price outcome. In the following, we start with a discussion of the price fairness concept. Then we compare and contrast the concepts of fairness and transaction value. Finally, we identify boundary conditions for the different effects of advantaged price inequity on perceptions of fairness and transaction value.

2. Conceptualization

2.1. Price fairness perceptions

Following Xia, Monroe, and Cox (2004) we define perceived price fairness as a consumer's assessment of whether the difference (or lack of a difference) between a seller's price and the price of a comparative other party in a transaction is equitable, reasonable or justifiable. Since price evaluations are based on comparative judgments (Monroe, 2003), price fairness perceptions are evoked by price comparisons. From the perspective of the evaluating consumer, comparisons of two prices for a similar product lead to one of three outcomes: (1) the prices are equal (price equity), (2) the consumer's price is less than the reference price (advantaged price inequity), or (3) the consumer's price is more than the reference price (disadvantaged price inequity). The concept of equity can be considered along a continuum ranging from disadvantaged inequity, to equity, and then to advantaged inequity (Oliver, Shor, & Todd, 2004).

Price equity normally will not induce fairness perceptions as this situation is the social norm, or if induced, may lead to perceptions of fairness. Theoretically, given that equity is normally the desired situation for perceptions of fairness, both advantaged and disadvantaged price inequities may lead to price unfairness perceptions (Finkel, 2001; Ordóñez, Connolly, & Coughlan, 2000; van den Bos, Peters, Bobocel, & Ybema, 2006). However, Xia et al. (2004) indicated that for price differences of equivalent magnitude, the degree of unfairness consumers may feel between advantaged and disadvantaged price inequities of the same magnitude may differ. They used the term unfairness to refer to perceptions associated with disadvantaged price inequity and less fairness to refer to perceptions associated with advantaged price inequity.

We all prefer being advantaged rather than being disadvantaged. Thus, it is easier to judge a disadvantaged price inequity as unfair while the judgment of an advantaged price inequity could be more ambivalent because we like it and may be reluctant to label it as unfair. However, research in social psychology has documented that an individual who receives an outcome that is equitable to the outcome of a comparative other person will perceive that equity is fairer than either an advantaged outcome or a disadvantaged outcome (Adams, 1965; Austin, McGinn, & Susmilch, 1980; van den Bos et al., 2006). For example, Ordóñez et al. (2000) found that MBA students perceived that it was less fair when they received a higher salary than their equivalent peers. Also, van den Bos et al. (2006) demonstrated that given sufficient cognitive resources, people perceived that receiving an advantaged payment higher than their equivalent peers is less fair although they are happy about it.

Similarly, in marketing transactions, a large scale shopping survey showed that 76% of the respondents agreed that “it would bother me to learn that other people pay less than I do for the same products”. However, 72% of these respondents also *disagreed* that “if a store I shop at frequently charges me lower prices than it charges other people because it wants to keep me as a customer more than it wants to keep them, that's OK” (Turow, Feldman, & Meltzer, 2005). These research results indicate that there are multiple ways that an outcome can be evaluated. What consumers like may or may not be what they consider as fair. In the next section, we discuss the nature of advantaged price inequity in more detail as we compare and contrast it with a closely related concept: perceived transaction value.

2.2. Price fairness and transaction value

Outcomes or procedures that make people pleased can be different from those that are fair, equitable, or just (Messick & Sentis, 1983). In the context of price perceptions, a just and equitable outcome leads to fairness judgments and whether people are pleased with the transaction leads to perceptions of transaction value (originally labeled transaction utility by Thaler, 1985).

Evaluation of transaction value is self-centered, focusing on whether the price represents a good value to oneself. A price disadvantage relative to a reference price produces negative transaction value and a price advantage produces positive trans-

action value. Since value functions differ for positive vs. negative outcomes (Kahneman & Tversky, 1979), then given the same amount of price difference between a reference price and the price paid, the perceived negative transaction value produced by a disadvantaged price would be larger than the perceived positive transaction value produced by an advantaged price.

- H_{1a} Given the same magnitude of price difference relative to equal prices, the absolute amount of perceived negative transaction value produced by a disadvantaged price inequity will be larger than the absolute amount of perceived positive transaction value produced by an advantaged price inequity.

Similarly, in fairness judgments, perceptions of price fairness are also biased toward the consumers' self-interest (Xia et al., 2004). Consumers would be more concerned with fairness issues when they experience a disadvantaged rather than an advantaged price inequity. Indeed, research points out that it takes more of an advantaged inequity than a disadvantaged inequity to generate a perception of unfairness (Jasso, 2006). Therefore, for an equivalent magnitude of price difference, there will be a lesser degree of perceived unfairness when the price difference is to the buyer's advantage compared to when it is to the buyer's disadvantage (Martins, 1995; Ordóñez et al., 2000). Hence, we hypothesize a similar asymmetry effect of advantaged and disadvantaged price inequity as in H_{1a}.

- H_{1b} Given the same magnitude of price difference relative to equal prices, consumers will perceive a disadvantaged price inequity situation to be more unfair than an advantaged inequity price situation.

While the asymmetries postulated in H_{1a} and H_{1b} have been predicted in previous research, nevertheless there are important differences between the concepts of price fairness and transaction value. We will first outline the similarity of these two concepts and then investigate the differences between them.

For consumers, usually a larger positive transaction value would be preferred. Thus, the more advantaged a price is relative to the reference price, the larger the perceived transaction value. However, as discussed above, although fairness is also biased by self-interest, judgments of fairness are governed by equity and bounded by the thinking of whether it is right. The Dual Entitlement Principle (Kahneman et al., 1986) examining the equity between the buyer and the seller suggests that firms are entitled to a reference profit based on certain norms that consumers hold. These norms dictate what "equity" is. Hence, it is unfair to raise the price of snow shovels after a snow storm only because of the increased demand (hence seller's negative motive), but it is fair to raise the price of lettuce after a natural disaster because of the reduced supply. Xia et al. (2004) further suggested expanding beyond a buyer–seller relationship to include inter-buyer price comparisons. Therefore, fairness issues may involve the buyer, the seller, as well as other buyers. People care about what other people get (in price) and in terms of fairness, equity is the desired state. Deviations from price equity, whether advantaged or disadvantaged inequity, may lead to unfair or less fair judgments. Thus, while an advantaged price may lead to larger perceived transaction value relative to equity, nevertheless, since it is a departure from the social norm of equity, it may still induce unfairness (less fair) perceptions.

- H₂ In comparison to a price equality situation, consumers will perceive that an advantaged price inequity:
 (a) provides more perceived transaction value, but
 (b) is perceived as less fair.

Overall, our predictions suggest that perceptions of price fairness and perceptions of transaction value are similar in several respects. Both are price evaluations based on comparative judgments. The outcomes of these evaluations may also be highly correlated: a disadvantaged price inequity (i.e., negative transaction value) is likely to be perceived as unfair. Hence, for a situation of disadvantaged price inequity we would expect that there would be a *positive* correlation between perceived price unfairness and perceived negative transaction value.

However, as we hypothesized, differences exist in the domain of an advantaged price inequity. A price advantage will enhance perceptions of transaction value but reduce fairness perceptions. Hence, for a situation of advantaged price inequity we would expect a *negative* correlation between perceived price fairness and perceived positive transaction value.

It should be noted that due to the self-interest nature of price fairness perceptions and the asymmetry effects between disadvantaged and advantaged price inequities in H_{1b}, the magnitude of the effect in H_{2b} is expected to be relatively small. In some situations it is possible that an advantaged price inequity may not be perceived as significantly less fair than an equal price. For example, a customer who pays less than what was paid last time may not perceive the price as less fair. Therefore, in the next section we discuss a boundary condition of advantaged price inequity (H_{2b}) by examining different comparative references.

2.3. Types of price comparative references

Different comparative references can be used when evaluating a price. A comparative reference may be "another person, a class of people, an organization, or the individual himself relative to his experiences from an earlier point in time" (Jacoby, 1976, p. 1053). Previous price fairness research has examined the effect of the same seller increasing a price or different sellers charging different prices for the same product (Bolton, Warlop, & Alba, 2003; Kahneman et al., 1986) or using a human vs.

a non-human source for communicating the comparative reference price (Campbell, 2007). Xia et al. (2004) argue that the reference that consumers use most often in price fairness judgments is a comparison with another customer. Indeed, social comparison theory identifies “similar others” as the most important comparative reference (Austin et al., 1980; Major, 1994; van den Bos et al., 2006).

Do different types of comparative references influence consumers' judgments of price fairness differently? Haws and Bearden (2006) showed that paying higher prices relative to other consumers triggered stronger unfairness judgments than seller, time or price setter differences. Research shows that comparisons with others explain more variance in satisfaction than an individual's expected outcomes (Major & Testa, 1989). While consumers may feel good about receiving a deal or bargain when comparative other consumers have paid more, they may not take such a price advantage for granted. Since fairness is governed by equity, we expect that the social comparison effect will apply also to an advantaged price inequity. An advantaged price inequity is more likely to be perceived as less fair when the reference is a price paid by another customer than when it is a price that the customer previously paid or another seller's price. Hence,

- H_{3a} When consumers compare a price to another consumer's price for a similar transaction, an advantaged price inequity will be perceived to be less fair than an equal price.
- H_{3b} When consumers compare a price either to their own previous experience or to another seller's price, there will be no significant differences in fairness perceptions of an advantaged price inequity compared to an equal price.

2.4. Effects of multiple comparative references

Another moderating factor we have identified is the presence of multiple comparative references. How do consumers react when facing advantaged and disadvantaged price inequities at the same time? What if an individual learns that she paid more than one consumer but at the same time less than a second consumer (e.g., one reference person paid \$30 more and the second reference person paid \$30 less for the same product)? Is paying less than another consumer still perceived as less fair when paying more than another consumer at the same time or does it actually make it fairer? Facing multiple comparative price references occurs frequently in the market place although it has not attracted much attention in price unfairness research. We propose that the effect of advantaged price inequity is bounded by the presence of other price references.

A situation involving two comparative references offers a set of scenarios with different combinations including: (1) both comparative consumers pay less than the focal consumer (two disadvantaged price inequities); (2) one pays less while the other pays the same as the focal consumer (one disadvantaged price inequity and one equal price); (3) one pays less while the other pays more (one disadvantaged and one advantaged price inequity); (4) both pay the same as the focal consumer (two equal prices); (5) one pays more while the other pays the same (one advantaged price inequity and one equal price); and (6) both comparative consumers pay more (two advantaged price inequities). Our focus is on scenario (3) as it introduces a situation wherein there is an advantaged and a disadvantaged price inequity condition simultaneously. If each of the two comparative references is evaluated independently, then both the disadvantaged price inequity and the advantaged price inequity will be perceived as less fair than an equal price so scenario (3) should be perceived as more unfair than scenario (2) where an advantaged price is paired with an equal price. However, if they are evaluated together (integrated), then the hedonic editing principle of mental accounting suggests that consumers will edit multiple outcomes in a way that makes them happiest (Thaler, 1985). The customer may use the positive feeling provided by the advantaged inequity to partially offset the pain caused by the disadvantaged inequality produced by the first comparison. Hence, we predict that an advantaged inequity will be perceived to be fairer than equality when the second reference produces a disadvantaged inequality (scenario 3 vs. 2).

On the other hand, when the advantaged inequity vs. equity comparison is each contrasted with an advantaged inequity (scenario 6 vs. 5), there is no “pain” to be concerned about and we predict an advantaged inequity (plus another advantaged inequity) will be perceived as less fair than equality (plus advantaged inequity). In other words, the effect of H_{2b} will hold only when another reference produces advantaged inequality (scenario 5 vs. 6).

- H_{4a} Given that a consumer is disadvantaged in comparison to one reference, then the price paid by the consumer will be perceived as fairer when a second reference pays a higher price rather than an equal price (scenario 2 vs. 3).
- H_{4b} Given that the consumer is advantaged in comparison to one reference, then the price paid by the consumer will be perceived as unfair when a second reference pays a higher price than an equal price (scenario 5 vs. 6).

In contrast to hypotheses H_{4a} and H_{4b}, we would not expect to observe this hypothesized interaction relative to transaction value. An advantaged price should produce higher transaction value than an equal price regardless of whether the second reference is advantaged or disadvantaged. We conducted several experiments to test our hypotheses.

3. Study 1

3.1. Design and measures

Study 1 examined the effects of price inequity on perceptions of price unfairness and transaction value as well as the moderating effects of comparative references. We used an experimental design of a 3 (price difference: higher, lower, or

same as the focal customer) \times 3 (comparative reference: other customer, other seller, or self). Using a scenario approach, 139 undergraduate business students were told to assume that they had been looking for a DVD player. After researching different types of product and store information, they had decided to buy from an online store at \$159.99. However, on the day when they were to place the order, they encountered a different price. The manipulations of comparative reference and price difference were then introduced. In the self-reference condition, participants found the price of the same product had either increased or decreased by \$40 or remained unchanged. In the other customer reference condition, participants met a friend who was buying the same DVD player. When the friend logged into the same website the price for the DVD player was \$40 more, \$40 less or the same as the participant's price. In the other seller reference condition, participants had found two websites selling the same DVD player for the same price during their search, but on the day of their planned purchase, they found that the site they had not intended to use now offered the product for \$40 more, \$40 less or the same price.

After reading the scenario, participants completed a questionnaire measuring: their unfairness perceptions and perceived transaction value. In addition, research has indicated that unfairness perceptions and transaction value are associated with emotions and both have behavioral consequences so we also measured emotional responses and participants' purchase and word-of-mouth intentions (see Table 1). Unfairness perceptions were measured using three items: fair, unfair, and unreasonable adapted from Campbell (1999, 2007). Perceived transaction value measures were adapted from Grewal et al. (1998). All measures were seven-point scales anchored on strongly agree–strongly disagree.

3.2. Study 1 results

A two-way MANOVA analysis produced a main effect of price difference on perceived unfairness ($F(2, 130) = 133.4$, $p < .001$, $\eta = .82$) and transaction value ($F(2, 130) = 51.59$, $p < .001$, $\eta = .67$). Multiple comparisons showed that compared to an equal price the disadvantaged price inequity created negative transaction value ($M = 3.07$ vs. 5.01 , $t(130) = 6.52$, $p < .001$, $r = .50$) while an advantaged price inequity created positive transaction value ($M = 5.94$ vs. 5.01 , $t(130) = 3.22$, $p < .01$, $r = .28$), supporting H_{2a} . In addition, the negative transaction value created by a \$40 disadvantage was significantly larger than the positive transaction value created by a \$40 advantage ($Z = 2.06$, $p = .02$), supporting H_{1a} .

Results also showed that a \$40 disadvantage led to higher perceived price unfairness compared to either no price difference ($t(130) = 15.25$, $p < .001$, $r = .85$, $M = 5.9$ vs. 2.3), or \$40 advantage ($t(130) = 13.1$, $p < .001$, $r = .81$, $M = 5.9$ vs. 2.8). The \$40 advantage was perceived as less fair than the equal price ($t(130) = 2.4$, $p < .05$, $r = .21$), supporting H_{2b} . Moreover, the size of the effect was significantly smaller compared to that of a \$40 disadvantage ($Z = 8.21$, $p = .00$), supporting H_{1b} .

The main effect of price difference was qualified by an interaction between comparative reference and price difference on fairness perceptions ($F(4, 130) = 2.8$, $p < .05$). When compared to another customer, an advantaged price inequity was perceived to be less fair than an equal price ($M = 3.23$ vs. 1.84 , $t(45) = 3.91$, $p = .001$, $r = .50$). However, when compared to either the customer's own previous price ($M = 2.47$ vs. 2.44) or another seller's price ($M = 2.79$ vs. 2.60), the differences were not significant. These results support H_3 (see Fig. 1). On the other hand, the interaction on transaction value was not significant (see Fig. 2).

Although not hypothesized, we also analyzed the effects of price inequities on purchase and word-of-mouth intentions. MANOVA analyses showed a main effect of price on purchase intentions ($F(2, 130) = 62.82$, $p < .01$, $\eta = .70$) and negative word-of-mouth intentions ($F(2, 130) = 23.65$, $p < .05$, $\eta = .52$) as well as an interaction effect on negative word-of-mouth

Table 1
Scale items and measurement properties.

Concepts	Measures	Study 1	Study 2	Study 3
Price fairness	Fair Unfair Unreasonable	$\alpha = 0.96$	See text	$\alpha = 0.92$
Perceived transaction value	Taking advantage of a price like this makes me feel good Taking advantage of this price deal gives me a sense of joy I would get a lot of pleasure knowing that I save money	$\alpha = 0.95$	$\alpha = 0.95$	$\alpha = 0.91$
Positive emotions	Happy Pleased Excited	$\alpha = 0.96$	$\alpha = 0.88$	$\alpha = 0.94$
Negative emotions	Upset Disappointed Angry	$\alpha = 0.91$	$\alpha = 0.97$	$\alpha = 0.91$
Purchase intention	Buy the DVD player in this store as I planned (study 1 and 3) I will not buy this DVD in this store (study 1 and 3) I will continue to buy from this online store (study 2) It is very likely that I will buy from this online store in the future (study 2) I probably will not buy from this online store in the future (study 2)	$r = -0.76$	$\alpha = 0.86$	$r = -0.94$
Word-of-mouth intentions	I will tell other people not to visit the store I will recommend the store to other people I will tell more people how good the online store is (study 2 only)	$r = -0.65$	$\alpha = 0.85$	$r = -0.57$

intentions ($F(4, 130) = 3.98, p < .01$). While disadvantaged price inequity led to lower purchase intentions and higher negative word-of-mouth as expected, advantaged price inequity did not lead to higher purchase intentions ($M = 4.88$ vs. $4.96, t(130) < 1, p > .5$) or higher positive word-of-mouth intentions ($M = 4.60$ vs. $4.88, t(130) = 1.09, p > 0.2$) than equal price. In fact, the interaction effect showed that when the comparative reference was another customer, advantaged price inequity actually led to lower intentions to spread positive word-of-mouth ($M = 4.17$ vs. $5.12, t(45) = 2.20, p < .05, r = .31$).

Finally, we examined participants' emotions associated with different prices paid and comparative references. As expected, analysis showed a main effect of price paid on negative emotions ($F(2, 130) = 87.37, p < .01, \eta = .76$) and positive emotions ($F(2, 130) = 172.37, p < .01, \eta = .85$). Disadvantaged price inequity led to significantly higher negative emotions ($M = 5.70$) and lower positive emotions ($M = 1.8$) than either price equality ($M = 2.43$ on negative emotions and $M = 5.0$ on positive emotions) or advantaged price inequity ($M = 2.60$ on negative emotions and $M = 5.6$ on positive emotions). Interestingly, when comparing with another customer, advantaged price inequity led to slightly higher positive (5.71 vs. 5.31) as well as negative emotions (2.62 vs. 1.93) than price equality although the differences were not statistically significant.

3.3. Study 1 discussion

The results of study 1 support hypotheses $H_{1a}, H_{1b}, H_{2a}, H_{2b},$ and H_3 . First, the effect of price inequity demonstrated an asymmetric pattern on both perceived transaction value and perceived fairness. In comparison to an equal price situation, when participants were paying a higher price than their reference, they perceived a lower transaction value as well as an unfair price. These effects were larger than when they were paying less than their reference. Indeed, when participants were paying less than their reference, the effects on transaction value and fairness differed. The advantaged price inequity slightly enhanced perceived transaction value while reducing fairness perceptions. Further, the interaction with type of comparative reference showed that the effect of advantaged price inequity on fairness perceptions only occurred in the context of a social comparison.

Examination of positive and negative emotions revealed some additional insights. Results showed that participants were slightly happier with an advantaged inequity than an equal price but at the same time were also slightly angrier than an

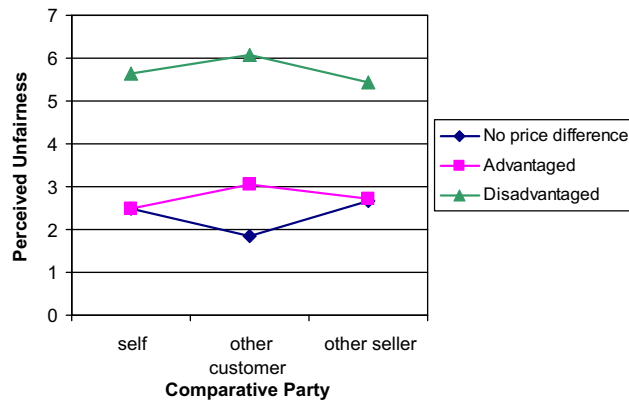


Fig. 1. Effects of comparative party on unfairness perceptions (study 1).

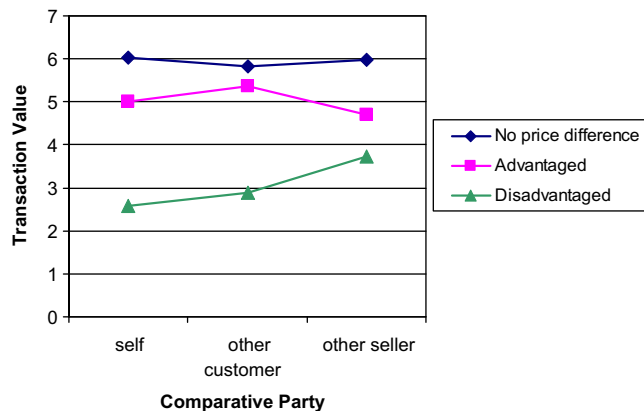


Fig. 2. Effects of comparative party on transaction value (study 1).

equal price. These mixed emotions are consistent with our argument that what makes people pleased may not be perceived to be the right thing.

Although we observed the differences as we expected, the differences are nevertheless subtle. To make sure that the two concepts are indeed different in the eyes of the respondents, we conducted a follow-up study to further explore these differences.

4. Study 2

4.1. Design and measures

Study 2 was a single factor between subjects study, manipulating price paid (same vs. lower than the comparative reference). Fifty-one college students read a shopping scenario wherein they bought a HD DVD player at an online store for \$259. After the purchase, they heard in the gym that a fellow student bought the same player for either the same or higher price (\$299). After reading the scenario, participants were first asked an open-ended question: “what do you think and how do you feel about the price you and the other student paid?” Next, participants answered a set of questions measuring their perceived unfairness, a set of emotions, perceived transaction value, and behavior intentions.

We measured fairness in a couple of different ways. First, we asked participants whether the price *they paid* is: fair/unfair; reasonable/unreasonable; and acceptable/unacceptable ($\alpha = .94$). Then, we asked whether the price *the other student paid* is: fair/unfair; reasonable/unreasonable; and acceptable/unacceptable ($\alpha = .97$). Finally, we used three items to measure fairness perceptions with the store and the purchase: the online store is fair; I was treated right by the online store; the purchase I made from the online store was fair ($\alpha = .90$). Positive and negative emotions were measured using the same items as in study 1. Finally, since price differences were presented in the scenario after purchase, participants' future purchase and word-of-mouth intentions were measured (see Table 1).

4.2. Study 2 results

We checked the manipulation by asking participants how much they paid for the DVD player and how much the other student paid. One participant indicated that he paid \$40 more and was deleted from the data (cell sizes are 24 and 26).

MANOVA analysis showed a main effect of price paid on transaction value ($F(1, 49) = 4.37, p = .04, r = .29, M = 4.76$ vs. 5.54). Paying less than the other student led to higher perceived transaction value. On the three measures of fairness, we observed no significant effect on “*price I paid*” ($F(1, 49) = .87, p > .3, r = .13, M = 5.89$ vs. 5.56), but a main effect on “*price the other customer paid*” ($F(1, 49) = 71.75, p < .001, r = .77, M = 5.86$ vs. 2.89), and a main effect on whether the store treats its customers fairly ($F(1, 49) = 22.49, p < .001, r = .56, M = 6.14$ vs. 4.31).

Further supporting H_2 , paying less than another customer enhanced transaction value but reduced perceived price fairness. Overall, results showed that respondents perceive that there is nothing too unfair about the price they paid, but it is indeed unfair that other customers have to pay more and the care for other people are directly associated with overall unfairness perceptions of the price of the store. Regression analysis showed that general store fairness perception is more influenced by other's price fairness ($b = .63, p < .001$) than self's price fairness ($b = .20, p > .1$) or transaction value ($b = .12, p > .3$). On the other hand, fairness of “*price I paid*” is more influenced by transaction value ($b = .60, p < .001$) than fairness of “*price the other customer paid*” ($b = .14, p > .3$) or general store fairness ($b = .21, p > .1$). Results showed that participants indeed conceptually separate a good price from a fair price. A good price is preferred but they do recognize the unfairness of the store in general and the unfairness to the other customers.

Examining the open-ended question offers more insights. Of the 24 respondents who paid the same price as the reference, 12 mentioned price fairness such as “I feel like we both paid the same price and it is fair”; “It is the same price as I paid, so there is nothing bothering me about the price”; “(prices) are the same and are expected”; “Feel fairly treated”. Four respondents used the reference to gauge the value of the purchase: “I feel good because I know the other person didn't get a better deal than me”; “Feel confident that I was not getting cheated.” And six respondents mentioned both fairness and value: “I feel satisfied because we all got the same deal and therefore, that is probably the cheapest price out there for this specific DVD player”; “I think that it is pretty fair and the average price of the DVD player at this time. We both received a good deal”.

Of the 26 respondents who paid less than the reference, 22 mentioned that they “feel good”, “feel blessed”, “feel lucky”, “are satisfied”, and “are happy” because they paid less. Paying a lower price indeed evoked higher perceived transaction value. The other four said the price that the other student paid is unfair (without mentioning the happiness of getting a lower price). Of the 22 who mentioned positive feelings, 10 also mentioned the other customer. They showed sympathy: “the other person got ripped-off”; “It sucks for the other person”; “Feel that the other person paid too much”. They questioned why the other person has to pay more: “(I am) confused how the other guy had to pay more”; “wonder why I paid so much less for the same product from the same retailer”; “there might have been a promotion that was only for a few hours and he might have missed the deadline”. They questioned the store motive: “I'm confused as to why the store charged us different prices”. Overall, the open-ended responses showed that price comparisons with another customer evokes both thoughts of transaction value (is it a good deal) and fairness perceptions (is it fair). Respondents see them as two different issues and mixed emotions exist.

An examination of the emotional measures provided further support. Similar to study 1, advantaged price inequity led to slightly higher positive (4.29 vs. 3.92) as well as negative emotions (2.23 vs. 1.85) than price equality although the differences were not statistically significant. Covariate analysis showed that positive emotions influenced perceived transaction value ($F(1, 49) = 41.34, p < .001, r = .68$) and fairness with own price ($F(1, 49) = 9.67, p < .01, r = .41$) but not fairness of other person's price or fairness of the store. On the other hand, negative emotions influenced fairness of other's price ($F(1, 49) = 3.48, p = .07, r = .26$) and fairness of the store ($F(1, 49) = 20.45, p < .001, r = .54$), but not perceived transaction value or fairness of own price.

Finally, MANOVA analysis showed there were main effects of price paid on future purchase intentions ($F(1, 49) = 3.69, p = .06, r = .26$) and positive word-of-mouth ($F(1, 49) = 15.08, p < .001, r = .49$). Paying a lower price than a reference customer actually led to lower future purchase intentions ($M = 5.43$ vs. 4.68) and less positive word-of-mouth ($M = 5.22$ vs. 3.77). Regression analysis showed that both transaction value ($b = .33, t = 3.70, p = .001$) and store fairness ($b = .67, t = 7.64, p < .001$) predicted purchase intention ($R_{\text{adj}}^2 = .64$) although fairness has a stronger impact. On the other hand, recommendation intention ($R_{\text{adj}}^2 = .48$) is only predicted by store fairness ($b = .69, t = 6.64, p < .001$) but not transaction value ($b = .11, t = 1.01, p > .3$).

4.3. Study 2 discussion

Results of study 2 confirmed our hypotheses and further provided insights on the differences between fairness and transaction value. Results showed that price differences evoke both fairness and value perceptions. The two concepts are closely related. Fairness of *one's own price* is influenced by perceived transaction value due to the self-interest bias and hence did not show a significant difference. However, participants indeed conceptually can distinguish a good price from a fair price. A price advantage is preferred as it offers higher transaction value, but they do recognize that the store is behaving unfairly in general and to other customers more specifically. More importantly, the unfairness perceptions have a significant effect on purchase intentions as well as recommendations.

5. Study 3

5.1. Design and measures

Study 3 was conducted to test the effect of advantaged inequity in a multiple comparative reference setting. Using a shopping scenario similar to that of study 1, we manipulated all six possible conditions for two comparative references: both references lower, one equal one lower, one higher and one lower, both references equal, one equal one higher, and both references higher, in the order of the degree the focal customer is price disadvantaged to advantaged. This design provides us with a complete picture of the effects as well as enables us to replicate some results from studies 1 and 2. The 148 student participants first read a scenario where they were considering buying a DVD player. After searching, they found a store where the player was selling for \$169.99. Before placing their order, they went to the store's chat room and asked people who recently had bought the same product from this store to provide price information. Two people responded to the inquiry, offering comparative prices. The two reference prices were manipulated as equal to, \$30 more, or \$30 less than the \$169.99 price. The order of the two reference prices presented (when different) was counter-balanced. After reading the scenario, participants responded to measures of fairness and transaction value. We also measured behavioral intentions and emotional responses.

5.2. Study 3 results

We first examined the order effect in conditions where two different prices were provided by the reference customers. No significant order effect was found so it was dropped from further analysis. We then conducted a trend analysis to examine the overall pattern. Results showed a significant linear trend on transaction value ($F(1, 142) = 28.62, p < .01, r = .41$) but no significant quadratic trend ($p > .3$). There was a significant linear trend on fairness perceptions ($F(1, 142) = 56.86, p < .01, r = .53$) as well as a quadratic trend ($F(1, 142) = 7.55, p < .01, r = .22$). The significant quadratic trend on fairness perceptions is consistent with our argument that both disadvantaged and advantaged inequities are perceived as unfair and equality is the fairest situation. Therefore, moving across the scenarios from being disadvantaged, to equal, and then advantaged, unfairness perceptions will first decrease and then increase. In contrast, transaction value perceptions only exhibited a continuous linear increase (see Fig. 3).

Next, we conducted a set of specific contrasts. First, as predicted in H_{4a} , the "one high and one low" condition (scenario 3) was perceived to be less unfair than the "one equal and one low" condition (scenario 2) ($t(142) = 3.16, p < .05, r = .24, M = 3.92$ vs. 4.79). Scenario 3 also produced higher transaction value than scenario 2 ($t(142) = 3.49, p < .05, r = .28, M = 4.41$ vs. 3.70). In contrast, the "both high" condition (scenario 6) was perceived to be less fair than the "one equal and one high" condition (scenario 5) ($t(142) = 2.3, p < .05, r = .19$). And the "both high" condition (scenario 6) was perceived to be less fair than the "both equal" condition (scenario 4) ($t(142) = 1.7, p = .09, r = .14$) although the "both high" condition created higher perceived transaction value than "both equal" prices ($t(142) = 1.9, p = .06, r = .16$). Results provided support for H_{4b} and demonstrated that the effect hypothesized in H_{2b} is moderated by the nature of additional references. An advan-

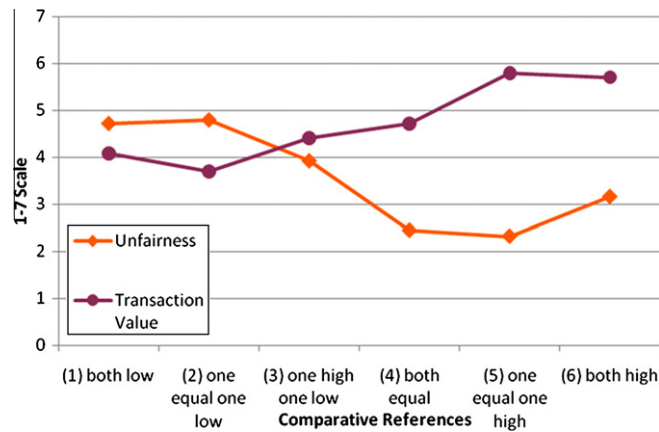


Fig. 3. Effects of multiple references (study 3).

tagged inequity leads to less fair perceptions than equal prices only when the consumer is *not* disadvantaged relative to any other references available.

There were no significant effects on either purchase intentions or word-of-mouth intentions when consumers are price advantaged relative to equality (both high vs. both equal, both high vs. one equal and one high, all p -values > .1). Examining participants' emotional responses, we found that participants in the "one high and one low" condition (scenario 3) were happier and less angry ($M = 3.51$ and 3.96) than those in the "one equal one low" condition (scenario 2, $M = 2.79$ and 5.00 , $p < .05$), demonstrating the hedonic editing mechanism underlying the prediction of H_4 . We further examined emotions in the conditions of both high, both equal and both low price references to compare it with study 1. As expected, disadvantaged inequity (i.e., both low condition) induced a significantly higher level of anger ($M = 5.05$), lower level of happiness ($M = 2.57$) than equality ($M = 2.00$ and 4.95) or advantaged inequity ($M = 2.29$ and 5.25). Advantaged inequity induced a slightly higher level of happiness ($M = 5.25$ and 4.95) but also a higher level of anger ($M = 2.29$ and 2.00) relative to equal prices although not statistically significant.

5.3. Study 3 discussion

Study 3 extended studies 1 and 2 to examine the differences between transaction value and price fairness perceptions in the context of multiple references. Results indicate that when there are multiple reference prices, whether the advantaged price inequity produced by one reference will affect fairness perceptions negatively as hypothesized in H_{2b} , depends on the nature of the other reference. The effect did occur when participants were not experiencing a disadvantage price inequity relative to either comparative reference. Hence, the better deal is not necessarily perceived to be a fairer deal. Study 3 replicated the differences between transaction value and unfairness perceptions as hypothesized in H_2 although the effect of an advantaged price inequity was smaller than that in study 1 ($r = .14$ vs. $r = .21$). But when participants experienced a disadvantage price inequity relative to one of the references, the advantaged price inequity relative to the second comparative reference influenced fairness perceptions positively in comparison to a situation of price equality, reversing the effect predicted in H_{2b} . Hence, perceived transaction value is in accordance with price fairness perceptions (i.e., the better deal is also a fairer deal).

6. Conclusions and contributions

Will a perceived better deal also be perceived as a fairer price? Overall, although counter-intuitive, our research has demonstrated that paying a price that is less than the reference price may be perceived to be less fair *when the reference price is a higher price paid by another customer for a similar transaction*. In two studies, we demonstrated that in the context of social comparisons, an advantaged price inequity had a negative effect on fairness perceptions. As a result, the good deal does not necessarily convert into higher purchase intentions or willingness to provide positive word-of-mouth as otherwise might be expected. Indeed, it may even negatively influence these behavioral intentions. However, compared to the effect of a disadvantaged price inequity on unfairness perceptions, an advantaged price inequity effect is relatively smaller. The asymmetry effect found demonstrated this difference.

Further, we also identified boundary conditions of the negative effect of an advantaged inequity. A good deal is a less fair price only when the reference is another customer and is not disadvantaged relative to other customers at the same time when multiple references are available. Most previous price fairness research has focused on situations when consumers pay a higher price than their reference. We address this gap by examining the effects of an advantaged price inequity and its boundary condition, thus extending our knowledge about consumers' price fairness perceptions.

Second, existing research on price fairness has been focusing on equity between buyer and seller (e.g., the Dual Entitlement Principle and the effect of inferred motive). We demonstrate that social comparisons have a crucial role in fairness perceptions both when consumers are price disadvantaged and advantaged. By incorporating other buyers into the comparison process, we extend the price fairness framework for further research.

Third, the question of whether a good deal is a fair deal represents a potential conflict between what consumers would prefer and what they may think is the right thing. Hence this research offers an interesting scenario to examine the similarities and subtle differences between perceptions of fairness and transaction value. Results showed that while a disadvantaged price inequity is perceived to be unfair as well as producing negative transaction value, an advantaged price inequity while producing positive transaction value, nevertheless was perceived to be less fair than paying an equal price under certain circumstances. Our findings shed light on the psychological processes underlying the intriguing interplay between consumers' preferences and fairness considerations when evaluating outcomes. Although the differences are subtle and effects are relatively small, these distinctions are theoretically and practically important.

In addition to contributing to our overall understanding of perceived price fairness, our research also suggests important managerial implications. Price fairness has long been recognized as a constraint for corporations' profit seeking activities. However, research has been focused on consumers who are being disadvantaged and their reactions to price increases. Implicitly, we assume that consumers who are on the other end of the stick will be happy and the price advantage will have a positive impact on their behavioral intentions. Our results showed that it is not necessarily the case. When perceived high transaction value due to advantaged prices is accompanied with a perception of unfairness, such an advantage may not necessarily lead to the expected positive behavioral consequences. Sellers routinely offer preferential treatment to some customers as a reward and to encourage loyalty and positive word-of-mouth. Our results imply that it is important to separate customers who are rewarded from other customers who do not qualify for the reward or advantage to minimize negative effects due to social comparisons.

From the consumers' perspective, research has shown that consumers care about what other customers are paying (Ackerman & Perner, 2004; Feinberg, Krishna, & Zhang, 2002; Midgely, 1983). Today, with online chat rooms, forums, consumer blogs, various social networks (Bickart & Schindler, 2001) and traditional market mavens (Feick & Price, 1987), it is likely that many consumers do know when they pay more or less than a comparative reference. Thus, it may help to provide customers with a good rationale for the preferential treatment, such as stating that only loyal customers or customers with special status (e.g., senior citizens) have the opportunity to receive a lower price. Such a rationale may reduce the potential uneasy feeling, thereby reducing any potential negative effect of being price advantaged. Xia et al. (2004) suggest that combining price variations with customization or personalization of products and services may reduce comparability between transactions, hence unfairness perceptions rising from price differences. This principle also applies to advantaged prices. Reducing the unfairness perceptions associated with advantaged inequity will ensure the positive behavior consequences led by the price advantage.

7. Future research

Our research showed that being advantaged is not always considered the fairest. Since advantaged inequity has not drawn much research attention, additional research would help to extend our knowledge on the issue. From a micro-perspective, emotions have been conceptualized to be an important element in unfairness perceptions (Campbell, 2007; Finkel, 2001; Xia et al., 2004). Our studies showed that an advantaged price inequity elicited mixed emotions. Paying a price that is less than another customer makes one happier than paying an equal price, but at the same time also angrier, although the differences were small and not statistically different. Future research should expand the spectrum of negative emotions and examine specific negative emotions associated with advantaged vs. disadvantaged inequity. While consumers may be angry when paying more than others, they may feel uneasy, embarrassed, or guilty when paying less than others under certain circumstances.

In addition, effects of advantaged inequity may vary in different communication contexts. In study 1 the scenarios were described as face-to-face communications with the comparative customers having known identities while study 3 was an online communication with the comparative customers having relatively vague identities. Results showed that the effect of an advantaged price inequity was relatively smaller in study 3 compared to that in study 1. Both communication context or source (Campbell, 2007) and identity of the comparative customers may contribute to this difference. Oliver et al. (2004) suggested that certain contexts may induce hypothetical thinking of what other consumers would have paid. For example, entering a coupon code in an online transaction may prompt thinking of consumers who do not have a coupon code. With such hypothetical and vague identity of "other customer" as a reference, an uneasy feeling may not occur and an advantaged inequity might lead to fairer perceptions than equity (Oliver et al., 2004). Therefore, future research could examine whether communication context and identity of the reference customer are other moderating factors of the effect of advantaged inequity.

Finally, characteristics of the respondents and products/services are potential moderating variables. People vary in degree of feeling of entitlement and level of social values held. Those with a higher feeling of entitlement or lower level of social value may care more about transaction value than fairness, and hence exhibit different behavioral intentions. In addition, products/services may also moderate the effects we observed. We argued that transaction value is centered on self-interest

while fairness has a major social element. Therefore, advantaged inequity may have a bigger impact in industries where limited resources are distributed and one's advantage means others' disadvantage such as in the health care industry and distribution of organs for patients needing a transplant. These moderating variables should be further explored in the future.

From a macro-perspective, in this research we only examine the effect of advantaged price outcome and its interactions with comparative reference characteristics (i.e., type of reference and multiple references). Referring to Xia et al.'s (2004) framework, several important areas for future research in the context of advantaged inequity can be identified. First, consumer attributions should be studied. Similar to a price disadvantage, a price advantage will also prompt consumers to ask why. And it may also prompt them to wonder whether they might be the customer who pays more next time. Future research can systematically manipulate reasons behind the price advantage and examine their effects on unfairness perceptions (see Bolton et al. (2003) in the context of price disadvantages). Second, buyer–seller relationship and consumer trust could be another moderating factor. Sellers may offer preferential treatment to their loyal customers. Consumers may reason and justify the advantaged price by their relationship with the sellers and hence mitigate the potential negative effect of the advantages on fairness perceptions. Future research should examine these contexts.

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