

Understanding Price Unfairness Perceptions
Amidst Price Decreases: The Role of Cognitive Moral Development

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Abstract

The price fairness literature has focused largely on price increases. However, many firms (e.g., Wal-Mart) have recently been criticized for practices implemented to help reduce costs (e.g., reduced benefits to employees) and lower prices. In this paper, we examine whether price unfairness perceptions can result despite price decreases. Our enquiry broadens the traditional focus in price fairness research (based on dual-entitlement) from the firm-consumer dyad to a triad which also includes the employee. As a result of this broadened focus, we examine whether the balance between consumers' own interests and that of "others" such as employees is moderated by the moral/ethical perspective of the consumer. In doing so, we integrate the marketing ethics literature with that of price fairness and provide insights into the impact of various managerial cost-reducing actions on consumers' perceptions of price unfairness.

In product pricing, managers must often gauge how consumers will respond to an intended price change. One factor that has been identified as affecting such responses is perceived price fairness (Kahneman, Knetsch and Thaler 1986a; 1986b). Xia, Monroe, and Cox (2004) define price unfairness as a “judgment of whether an outcome and/or process to reach an outcome [is] reasonable, acceptable or just,” and research demonstrates that such judgments affect consumers’ patronage of firms (Kahneman et al. 1986b), loyalty (Bei and Chiao 2001), shopping intentions (Xia et al. 2004), and word-of-mouth (Xia et al. 2004).

The principle of dual entitlement by Kahneman et al. (1986a; 1986b) is a widely adopted framework for understanding consumers’ price unfairness perceptions. According to Kahneman et al., when consumers perceive a firm as realizing a profit greater than what they think the firm is entitled to as a result of a price increase, price unfairness perceptions result. By contrast, when a price increase is seen as maintaining the firm’s existing level of profit (entitlement), the price increase is seen as fair.

Marketers in pricing research have extended the principle of dual-entitlement by examining how consumers’ perceptions of reference prices are formed (e.g., competitors prices, own costs, etc.) and whether these different reference formation processes influence the fairness perceptions of a price increase (e.g., Bolton, Warlop, and Alba 2003). Similarly, Campbell (1999) researches the effect of company reputation and motive on consumers’ price unfairness perceptions in the context of a price increase. She finds that when participants infer a positive motive for the price increase, it is seen as more fair, as is a price increase by a reputable firm (compared to an unknown firm). These findings help a firm anticipate the impact of a price increase, based on their reputation in the market place and their communication of the reason behind the price increase.

However, much of the emphasis in the price fairness literature has been on the perceived unfairness of a price increase, and correspondingly little attention has been paid to the impact of a price decrease on consumers' price fairness perceptions. In a competitive environment, it is not uncommon for firms to layoff employees or cut employee benefits as they seek to cut costs and deliver more competitive prices (e.g., airline industry). At the extreme, entire job descriptions could be outsourced to foreign locations where employees earn lower wages (e.g., service operations of many computer manufacturers such as Dell). Most recently, the parent company of Stop and Shop, a large grocery chain, has been in the news for planning to cut work hours, lay off workers, and outsource some jobs to enable them to lower grocery prices and increase profitability and market share (ElBoghdady 2006).

Against this backdrop of current business environment, it is pertinent to ask whether price decreases enabled by such actions could be perceived by end consumers as being unfair. Conventional logic (e.g., utility maximization) presumes that a consumer would always receive a benefit such as a price decrease with open arms. However, the principle underlying dual-entitlement could be expanded to allow for the possibility that consumers see employees as being 'entitled' to a fair wage that guarantees a certain standard of living. Thus, a perceived violation of entitlements of "others" such as employees could influence end-consumers' perceptions of price fairness, despite the benefit of a lower price.

In our paper, we address this basic question and examine what factors moderate price unfairness perceptions of a price decrease. In particular, since price unfairness perceptions result from a violation of norms (Xia et al. 2004), and norms are a function of the existing ethical/moral standard, we examine the role of cognitive moral development in influencing price unfairness perceptions. Cognitive moral development (CMD) captures the moral reasoning

capacity of an individual, and in marketing ethics, CMD has been shown to influence a person's ethical and socially responsible behavior (Goolsby and Hunt 1992; Hunt and Vitell 1986, 1993). Surprisingly, however, the role of CMD has not been studied in the context of price fairness. In our paper, we fill this gap and integrate the parallel literatures of marketing ethics and price unfairness by examining how CMD moderates the extent to which a person views himself benefiting at the expense of others and how this influences his/her price unfairness perceptions. We will use the term "harm" throughout the paper to refer to actions which occur at the "expense of others such as employees;" such terminology is consistent with the business ethics literature which classifies the cutting of employee pay and benefits (actions which firms often take to cut costs) as "economic harm" (Collins 1989).

In addition to examining the role of cognitive moral development and harm to others, we also examine whether company reputation and company intent (motive) moderate fairness perceptions of a price decrease. For example, we explore whether price unfairness perceptions differ depending upon whether a consumer is aware that the firm has lowered its prices to stay competitive or to increase volume, and presumably, profits. We examine such factors as prior research with price increases has highlighted these factors as important moderators of fairness perceptions of price increases (e.g., Campbell 1999). Further, such analysis is potentially useful to firms in planning their message about the price decrease.

The rest of the paper is organized as follows. In the first section, we develop our hypotheses. In the second section, we report the results of two studies designed to test these hypotheses. The first study examines whether a price decrease can be perceived as unfair, whether CMD moderates unfairness perceptions, and the influence of price unfairness perceptions on purchase intention and company image. The second study extends our findings

from Study 1 and examines whether the level of harm inflicted on the employees and company reputation moderate unfairness perceptions. Last, we conclude with a discussion of our findings and their implications for theory and managerial practice, as well as topics for future research.

HYPOTHESIS DEVELOPMENT

Prior research has shown that in addition to individual utility considerations, consumers' reactions to a price increase are moderated by considerations of price fairness. According to Kahneman et al.'s (1986a, 1986b) principle of 'dual entitlement,' consumers believe that firms are entitled to a reference profit, just as consumers believe they are entitled to a reference price. This principle, which Kahneman et al. validate with experimental data, leads to different predictions about how consumers react to a price increase. According to dual-entitlement, if a price increase results from a cost increase, then consumers are more accepting of the price change, since they view the increase as protecting the firm's reference profit to which consumers believe the firm is entitled. By contrast, a price increase that is seen as capitalizing on increased demand results in perceptions of price unfairness since it is seen as violating consumers' entitlement to their reference price.

A number of studies (for a review, see Xia et al. 2004) have expanded on the principle of dual entitlement, examining such moderating factors as the inferred motive behind the price increase (Campbell 1999), firm reputation (Campbell 1999), prior expectations (Bolton, et al. 2003), and the manner in which consumers arrive at their reference price (e.g., from examining competitors' prices, past experience, or an examination of the firm's cost structure; Bolton et al. 2003).

However, most of the studies in price fairness have examined the fairness of a price increase. In our paper, we examine the fairness of a price decrease, as opposed to a price increase. A consistent finding in price fairness research has been that price increases that are seen as cost-based are seen as just or fair (Bolton et al. 2003). In our paper, we explore the converse, namely, whether a price decrease based on cost reductions will be seen as fair, given how costs were reduced. If consumers are self-motivated, then the manner of price decrease should not matter; consumers should revel in their good fortune, be happy with the firm, and show high purchase intentions. However, a large body of research suggests that consumers are not always self-motivated (e.g., Camerer and Thaler 1995; Maxwell, Nye and Maxwell 1999; Rabin 1993) and considerations of fairness have been identified as one variable that explains non-self-motivated behavior.

Further, most studies of price fairness have examined considerations of fairness within the dyad of a firm and its consumers. In our paper, we not only expand considerations of price fairness to instances of price decreases, but also expand this dyad to include others, such as employees. This framework is increasingly relevant as firms reduce employee benefits and outsource jobs to either stay competitive or increase profits.

This expanded perspective brings into focus an interesting dilemma for the individual consumer when confronted with a price decrease. With a price decrease, there is the potential for the individual to benefit at the cost of another, such as when a firm enables a price decrease through cost-cutting actions which harm employees. Thus, in determining the relative fairness of these actions and whether to patronize such firms, the consumer must inherently tradeoff their own good vs. that of an unknown other. Consequently, we expect that such decisions will be

influenced by the consumer's ethicality or degree to which s/he is self-interested vs. other-focused.

The Role of Cognitive Moral Development (CMD)

Researchers have been aware of individual differences with regard to fairness issues. As Xia et al. (2004, p. 10) note, "consumers may have different degrees of sensitivity to fairness or equity issues, which provides for an interesting covariate for future research." Similarly, Loewenstein, Thompson, and Bazerman (1989) posit that there could be considerable variation among individuals with respect to the extent to which individuals are concerned about social utility as opposed to their own utility.

We propose that cognitive moral development, a construct used in the ethics literature, is an appropriate measure for assessing this degree of sensitivity. The construct of cognitive moral development (CMD) was first suggested by Kohlberg (1969) who argued that individuals evolve along moral stages that relate to the degree to which people act to promote their self interests vs. selfless interests. The construct of CMD has been used extensively by ethics researchers (including business ethics researchers) for capturing the ethical perspective of an individual. CMD (as measured by DIT) has been used in marketing by Hunt and his colleagues (Goolsby and Hunt 1992; Hunt and Vitell 1986, 1993) to demonstrate that the moral reasoning capacity of an individual influences a manager's ethical and socially responsible behavior. Similarly, in the accounting literature, Ponemon and Gabhart (1990) have shown that auditors with greater CMD are more likely to disclose unpleasant findings and disregard the potential threat of retaliation by management. In management, Trevino (1986) has explored how CMD influences how managers deal with conflicting interests in complex organizational environments.

The construct of CMD is most often measured by the Defining Issues Test by Rest (1979) which presents respondents with a set of vignettes illustrating a set of moral dilemmas and then seeks to tap into the reasoning process of the individual by a series of related questions. As Goolsby and Hunt (1992, p. 56) note, "Rest's DIT is considered to be the most reliable, valid measurement device for studying Cognitive Moral Development".

However, CMD (as measured by DIT) has not been employed at the consumer level to judge the effect of consumers' moral reasoning processes on their actions. Instead, the earlier studies have examined the role of CMD at the managerial level. Considering that price unfairness perceptions could be viewed as a reaction to what is perceived as an unethical behavior, these findings suggest that cognitive moral development could serve as a powerful predictor for understanding consumers' price unfairness perceptions and their degree of sensitivity to fairness or equity issues. Hence, we examine the impact of CMD on consumers' fairness perceptions within the context of a price decrease, since this context brings about a potential conflict between one's self-interest and one's consideration for others.

In contrast to the existing price fairness literature which appears to implicitly assume that price decreases are beneficial to the consumer, and hence acceptable, we argue that price decreases could sometimes be seen as unfair. In particular, perceptions of unfairness are likely to result when the price decrease occurs at the expense of employees. This is because consumers could view employees as *entitled* to a 'fair' wage that guarantees a certain standard of living, similar to the principle underlying dual-entitlement. The premise for this entitlement can be traced to theories of equity and distributive justice which contend that a just reward is one that is commensurate with one's efforts (Huppertz, Arenson, and Evans 1978; Oliver and Swan 1989). Thus, an employee who does his/her job well would be seen as deserving a fair wage. Similarly,

if consumers consider employees' entitlement to a fair wage as a 'social norm,' then violation of that norm could also create perceptions of price unfairness (Maxwell 1995, 2002; Xia et al. 2004).

Additionally, perceptions of unfairness could occur as a result of guilt that consumers may experience from benefiting at the employees' expense. Xia et al. (2004) note that perceptions of advantaged equity are often associated with feelings of guilt and exacerbate perceptions of price unfairness. Experimental economists (e.g., Fehr and Schmidt 1999; Walster, Walster and Berscheid 1978) have also echoed this viewpoint. According to the Inequity Aversion Theory in economics, individuals are willing to sacrifice some material payoff in favor of equitable outcomes (Fehr and Schmidt 1999). Specifically, when an individual receives less than another, inequity aversion theory posits that feelings of envy could result, whereas when one receives more than another, feelings of guilt could prevail. These two emotions – envy and guilt – are seen to work to restore equity in the case of under-compensation and over-compensation. This theory is also consistent with the results of Smith et al. (1998) who found that participants in an experiment who received positive outcomes were more likely than those who received negative outcomes to view the experiment as unfair when they perceived the procedure of allocation as unfair.

Thus, a number of sources suggest that individuals do care about the well-being of others and take such notions into account when making judgments of fairness. Applied to the area of price decreases, these findings suggest that price decreases which negatively affect others (such as employees) may be perceived as unfair. Since such situations involve a tradeoff between a gain at the consumers' end and a loss at the employees' end, we expect a consumer's level of cognitive moral development to moderate price fairness perceptions, with those at high levels of

cognitive moral development (i.e., the least self-interested) perceiving the actions as most unfair.

Accordingly, we hypothesize that:

H1a: Price decreases which occur at the expense of employees will be perceived as more unfair than those which do not occur at the expense of others.

H2a: The degree to which consumers perceive such price decreases as unfair will be moderated by their level of cognitive moral development, with those at high levels of cognitive moral development perceiving such actions as the most unfair.

While it seems that consumers at high levels of cognitive moral development should be particularly sensitive to the plight of others and hence view price decreases which negatively impact others as unfair, reactions of consumers with low levels of cognitive moral development are less clear cut. Because these consumers are more self-interested, they may place their own needs higher than those of others and hence ignore the negative consequences of the price decrease. In other words, they may judge price fairness solely on the outcome for them rather than balancing the benefits to them against the costs to others in making their judgments. Alternatively, they may balance the relative benefits and costs, but may not provide equal weights to both sides, placing a higher value on benefits to the self. Consequently, higher levels of harm may be needed for a judgment of unfairness to be made.

Level of Harm

The business ethics literature defines three broad types of harm: physical, economic, and psychological (Collins 1989; Keeton 1984; Smith and Cooper-Martin 1997). Of these, physical harm is considered the most serious, followed by economic and psychological harm respectively (Collins 1989). Hence, it is reasonable to expect that unfairness perceptions in the context of physical harm (e.g., worker safety) would be greater than that of economic harm (e.g., cut in

benefits). Considering this taxonomy in conjunction with the common cost-cutting tactics used by firms, we expect that removing health benefits would be seen as more unfair than cuts in worker pay such as withdrawal or reduction of employee bonuses since the former places the individual at physical risk in case of illness. Hence, we expect:

H1b: Price decreases associated with greater levels of harm (e.g., reducing employee health benefits vs. eliminating bonuses) will lead to greater unfairness perceptions.

However, as noted above, we expect unfairness perceptions to be moderated by the consumers' level of cognitive moral development. Consumers with low levels of cognitive moral development are more likely to place greater weight on their own self interests as opposed to those of others. Therefore, we anticipate that a greater level of harm will be needed for consumers with low cognitive moral development to register the firm's actions as unfair, and thus, view the price decrease as unfair. However, because consumers with high levels of cognitive moral development are more attuned to others' plights, any level of harm should be perceived as objectionable. Hence, we predict that:

H2b: Perceptions of price unfairness will be moderated by the consumers' level of cognitive moral development such that consumers with high levels of cognitive moral development will perceive price decreases resulting from low and high levels of harm as unfair while consumers with low levels of cognitive moral development will only perceive price decreases resulting from high levels of harm as unfair.

Relationship between Price Unfairness Perceptions and Intentions to Buy

Prior research provides evidence that price unfairness perceptions affect consumers' patronage decisions. For example, Kahneman et al. (1986b) found that respondents were willing to travel an additional five minutes rather than shop at a nearby store that had raised its prices when a competitor went out of business. Similarly, Xia et al. (2004) report that price unfairness perceptions result in lower shopping intentions and greater negative word of mouth. Thus,

consistent with prior research, we also expect that price unfairness perceptions will influence purchase intentions. In addition, we examine whether harm affects purchase intentions only indirectly (i.e., harm influences perceived fairness which in turn influences purchase intentions) or whether harm also has a direct effect on purchase intentions. We also examine whether these relationships are moderated by level of harm, level of cognitive moral development, and/or firm reputation.

Effects of Price Fairness Perceptions on Company Image

In addition to examining the effects of fairness perceptions on purchase intentions, we also consider the impact of a firm's actions on company image. Peloza's (2005) research indicates that when firms act ethically, they are perceived more positively by consumers. However, when the converse takes place, that is, firms are seen as having acted unethically, attribution theory suggests that consumers would be motivated to seek out the reason for the negative action (cf. Vaidyanathan and Aggarwal 2003).

As Maxwell (2002) notes, when consumers experience 'mental distress' over a pricing practice, they seek to attribute the blame to a cause or source. Heider (1958) reports that when individuals make causal attributions, they display a tendency to attribute the blame to a well-defined entity such as a person or firm rather than an amorphous entity such as the environment. Hence, we argue that the causal attributions would most likely identify the firm as the principal causal agent for violation of the social norm and this would affect their overall evaluation of the firm. Thus, we expect that firms which harm employees will be perceived more negatively than those which do not. Further, we expect this impact to depend both on the level of harm (with greater levels of harm leading to more negative perceptions) and CMD. Specifically, because

consumers with high levels of cognitive moral development presumably feel more for others, they should be more angered when firms commit actions which harm their employees. Thus, they should be more likely to blame the firm, resulting in reduced perceptions of the company.

Finally, we expect that fairness perceptions will mediate the effect of harm (as well as the harm by CMD interaction) on company perceptions. Bolton et al. (2003) and Vaidyanathan and Aggarwal (2003) have shown that the attributions made by consumers exert considerable influence on consumers' price fairness perceptions. Fairness perceptions are seen as signals of an organization's respect and acknowledgement of one's social identity and this influences the relationship that the consumer has with the firm (Labroo and Isen 2003). Hence, we expect harm to influence company perceptions both directly and indirectly, through fairness perceptions.

Accordingly, we hypothesize that:

- H3:** Firms which effect price decreases by harming employees will be perceived more negatively than those which effect price decreases without harming employees.
- H4:** The effect on company perceptions of enacting cost-cutting measures that harm employees will be moderated by the consumer's level of cognitive moral development, with those at high levels of cognitive moral development perceiving the firm most negatively.
- H5:** The effect of perceived harm on company perceptions will be mediated by price unfairness perceptions.

We test these hypotheses in two studies. In the first study, we examine whether harm matters (H1a) and how the impact of harm is affected by cognitive moral development (H2a). In addition, we examine the effect of harm, cognitive moral development, and fairness perceptions on purchase intentions and company perceptions. In study 2, we investigate these issues further, examining additional moderating factors (firm reputation and firm intentions), the role of level of harm, and several other complexities raised by the findings in Study 1.

STUDY 1

In Study 1, we examine the primary hypothesis that price decreases can be viewed as unfair. In addition, we examine the impact of CMD on fairness perceptions, as well as how fairness perceptions relate to perceptions of the company.

Method

Study 1 uses a 2 x 2 between-subject design that crosses the existence of harm to others (harm: present, absent) caused by cost reductions with respondents' level of CMD (CMD: high, low), as measured by the DIT. One hundred and twenty-six undergraduates from an east coast university participated in partial fulfillment of a course requirement. Ten participants had to be excluded due to missing information or data collection errors, leaving a total sample size of one hundred and sixteen. All responses were collected via computer.

Procedure

The study consisted of three sections. In the first section, participants read scenarios describing a company's decision to reduce prices and answered questions relating to the scenarios. Each participant read two different scenarios – one about a fictitious gas company (Eon) and one about the maker of Barbie dolls (Mattel)¹; participants were randomly assigned to one of two scenario orders in order to control for order effects.

¹ A third scenario about a shoe manufacturing company (Olympia) was also included. However, manipulation checks revealed that this scenario failed to adequately manipulate perceived harm to others ($p > .08$). Consequently, we will not discuss this scenario further.

In the second section, participants completed three scenarios (Heinz, prisoner, and the doctor) from the Defining Issues Test (Rest 1986)². This test has been used previously (Goolsby and Hunt 1992; Thoma, Barnett and Narvaez 1999) to assess respondents' level of cognitive moral development and is considered the most consistent and reliable indicator of cognitive moral development (Goolsby and Hunt 1992). Participants were placed into low and high CMD groups using a median-split of the CMD-scores.

Stimuli

The stimuli consisted of scenarios describing a company's decision to decrease prices. The experimental factor of *harm* was manipulated by varying the reason given for the cost savings. In the 'no harm' conditions, the cost savings were described as being realized in ways that did not negatively impact employees – for example, through new production facilities (Mattel) or due to savvy investments (Eon). In the 'harm' conditions, the cost savings were described as being obtained through actions that negatively impacted employees – e.g., paying lower wages to foreign employees (Mattel) or cutting benefits (Eon). Example scenarios appear in the Appendix.

Dependent Measures

Measures of price unfairness, purchase intentions, and company perceptions were adapted from similar measures used in the price fairness literature. *Price unfairness* was measured using two items ($\alpha = .82$ for Eon, and $.91$ for Mattel): "Please indicate how you feel

² The Defining Issues Test (DIT) is copyrighted by James Rest and may not be reproduced or used without written permission of its author. For academic research purposes, permission is customarily granted without charge. Additional information is available from the Center for the Study of Ethical Development, Department of Educational Psychology, 139 Burton Hall, 178 Pillsbury Drive SE, University of Minnesota, Minneapolis, MN 55455.

about the reduction in price using the scale below”, (1 = extremely unfair, 7 = extremely fair), and “To what extent do you agree with [product’s] decision to reduce prices [by reason]” (1 = strongly disagree, 7 = strongly agree). *Purchase intention* was measured with a single item: “How likely would you be to buy [product]?” (1 = not at all likely, 7 = very likely).

A three-item scale ($\alpha = .73$ for Eon, and $.66$ for Mattel) was used to assess *Company Perceptions*. These items were rated on 1-7 scales anchored by: (1) does not care/ cares a lot about its customers; (2) does not care/ cares a lot about its employees; and (3) bad/ good company. Factor analysis confirmed that these three items loaded onto a single factor.

Manipulation Check Measure. We assessed the effectiveness of the harm manipulation by asking participants to rate the extent to which the price decrease negatively impacted others (1 = has not hurt others a lot, 7 = has hurt others a lot).

RESULTS AND DISCUSSION

Manipulation Checks

We conducted 2 (harm: present, absent) x 2 (CMD level: low, high) ANOVAs for each scenario to determine if the manipulations were effective. There were significant effects of harm for both Mattel ($F(1, 108) = 11.62, p < .001$) and Eon ($F(1, 108) = 21.99, p < .0001$). Respondents exposed to the harm condition indicated that the price decrease negatively impacted others more than those exposed to the no harm condition ($M = 4.5$ vs. 3.7 for Mattel; $M = 5.5$ vs. 4.2 for Eon).

Effects of Harm and Cognitive Moral Development on Perceptions of Fairness

To examine the effects of the manipulations on the dependent variables, we conducted 2 (harm: present, absent) x 2 (CMD level: low, high) repeated-measure ANOVAs, with product as the repeated factor. The individual cell means across both factors are shown in Table 1.

There was a significant effect of harm ($F(1, 115) = 115.67, p < .0001$) and a significant harm by CMD-level interaction ($F(1, 115) = 12.46, p < .001$) on fairness perceptions. Those in the no harm condition perceived the price decrease to be more fair ($M = 5.4$) than those in the harm condition ($M = 3.6$), supporting H1a.³ Furthermore, as can be seen in Table 1, those with higher levels of cognitive moral development perceived situations that involved harm to others as less fair ($M = 3.0$) than those with lower levels of cognitive moral development ($M = 3.9, p < .0004$). Although situations involving harm to others were perceived as less fair than those which did not, only those with high levels of cognitive moral development actually perceived these situations as unfair (i.e., below the scale mid-point; $p < .0001$). Interestingly, those with higher levels of cognitive moral development also perceived situations without harm as marginally more fair than those with lower levels of cognitive moral development ($p < .09$). These results support H2a.

INSERT TABLE 1 HERE

In addition to these findings, there was also a significant effect of product ($F(1, 113) = 10.39, p < .002$) and a significant product by harm interaction ($F(1, 113) = 11.63, p < .001$) on fairness perceptions. The price reduction in the Mattel scenario was seen as more fair ($M = 4.7$) than the price reduction in the Eon scenario ($M = 4.2$). As Table 2 shows, this difference was

³ Main effect means such as this, computed across both product categories, are not shown in Table 1 which only reports the individual cell means.

driven by the harm condition – the Eon price reduction which resulted from harm to employees was seen as significantly less fair than both the Mattel price reduction which resulted from harm to employees and the price reductions which did not result from harm to employees ($p's < .0001$). By contrast, perceptions of fairness did not differ between Eon and Mattel for the no harm conditions ($p > .8$).

INSERT TABLE 2 HERE

Effects of Harm and CMD on Company Perceptions and Intentions to Buy

There was a significant effect of harm ($F(1, 115) = 99.44, p < .0001$) and a significant harm by CMD-level interaction ($F(1, 115) = 6.61, p < .02$) on perceptions of the company. Participants viewed the company less positively if the price reduction harmed others ($M = 3.6$) than if it did not ($M = 5.0$), supporting H3. Although this finding held for participants with both high and low levels of CMD, participants with high levels of CMD perceived the company even more negatively than those with low levels of CMD (see Table 1). By contrast, those with high and low levels of cognitive moral development did not differ in their perceptions of companies which did not harm employees ($p > .1$). Similar to the findings for perceived fairness, while situations involving harm to others led to more negative perceptions of companies than situations which did not involve harm, only those with high levels of cognitive moral development actually perceived these companies negatively (i.e., lower than the scale mid-point; 3.4 vs. 4.0, $p < .0001$; 3.8 vs. 4.0, $p > .05$). These results support H4.

There was also a significant harm by product interaction ($F(1, 113) = 5.35, p < .03$) on perceptions of the company. As can be seen in Table 2, when Eon reduced its prices through an action that caused harm to others, it was perceived more negatively ($M = 3.4$) than when Mattel reduced its prices through an action that caused harm to others ($M = 3.8, p < .0001$). There were

no differences in respondents' perceptions of Eon ($M = 5.0$) and Mattel ($M = 4.9$) when the companies did not harm others through their actions ($p > .9$).

There was a significant effect of harm ($F(1, 115) = 20.27, p < .0001$) on purchase intention. Those in the harm conditions reported lower intentions to purchase the products ($M = 3.1$) than those in the no harm condition ($M = 4.1$). In addition, there was a significant effect of product ($F(1, 113) = 125.89, p < .0001$) and a significant harm by product interaction ($F(1, 113) = 12.40, p < .001$) on purchase intentions. No other effects were significant. Participants reported higher purchase intentions for Eon ($M = 4.9$) than for Mattel ($M = 2.3$). As can be seen in Table 2, harm to others decreased purchase intentions for Eon, but not for Mattel. This lack of an effect of harm in the Mattel scenario may have been due to a floor effect (participants in general reported low levels of intention to buy the Mattel doll) or to a reputation effect (it is possible that harm matters for a no-name brand, but not for a well-known brand like Mattel). We examine the possibility of a reputation effect in Study 2.

Relationship Between Fairness Perceptions and Purchase Intentions

To test hypothesis 5, we conducted mediation analyses using the Baron and Kenny (1986) method. Specifically, Baron and Kenny propose three requirements to test for mediation. First, the independent variable must predict the mediator. Second, the mediator must predict the dependent variable. Finally, the relationship between the independent variable and the dependent variable must be significantly reduced when the mediator is included in the model.

First, we tested whether fairness perceptions mediated the effect of harm on perceptions of the company. Fairness perceptions partially mediated the effect of harm on perceptions of the company for both Eon and Mattel. For Eon, harm predicts perceived fairness ($F(1, 112) = 99.98$,

$p < .0001$), perceived fairness predicts perceptions of the company ($t = 11.22, p < .0001$), and when perceived fairness is included in the model with harm to predict perceptions of the company, the effect of harm is significantly reduced (F drops from 91.03 to 14.78), thus satisfying the Baron and Kenny (1986) conditions for partial mediation. For Mattel, harm predicts perceived fairness ($F(1, 112) = 33.65, p < .0001$), perceived fairness predicts perceptions of the company ($t = 6.95, p < .0001$), and when perceived fairness is included in the model with harm to predict perceptions of the company, the effect of harm is significantly reduced (F drops from 47.85 to 19.74), again satisfying the conditions for partial mediation. Sobel tests confirm the indirect effect of harm on company perceptions ($z = -8.36, p < .0001$ for Eon; $z = -5.16, p < .0001$ for Mattel).

Next, we tested whether fairness perceptions mediate the harm by CMD-level interaction on perceptions of the company. Fairness perceptions fully mediate the harm by CMD-level interaction on perceptions of the company. For Eon, the harm by CMD-level interaction is significant for fairness perceptions ($F(1, 112) = 4.91, p < .03$), perceived fairness predicts perceptions of the company ($t = 11.22, p < .0001$), and when perceived fairness is included in the model to predict perceptions of the company, the harm by CMD-level interaction is no longer significant ($F(1, 112) = 1.41, p > .2$), thus satisfying the Baron and Kenny (1986) conditions for full mediation. Similarly, for Mattel, the harm by CMD-level interaction is significant for fairness perceptions ($F(1, 112) = 9.81, p < .003$), perceived fairness predicts perceptions of the company ($t = 6.95, p < .0001$), and when perceived fairness is included in the model to predict perceptions of the company, the harm by CMD-level interaction is no longer significant ($F < 1$). Sobel tests confirm these results ($z = -3.35, p < .001$ for Eon; $z = -3.63, p < .0003$ for Mattel).

Fairness perceptions, in turn, predict purchase intentions for Eon ($\beta = .60, t = 9.50, p < .0001$), but not for Mattel ($\beta = .12, t = 1.51, p > .1$). A closer examination of these findings reveals that

fairness perceptions predict purchase intentions for Eon regardless of CMD level – both those with lower CMD levels ($\beta=.39$, $t = 4.70$, $p<.0001$) and those with higher CMD levels ($\beta=.82$, $t = 8.83$, $p<.0001$) are less likely to purchase from Eon the more they perceive the price reduction to be unfair. For Mattel, perceptions of fairness do not predict purchase intentions for those with low levels of CMD ($p>.6$), but do predict purchase intentions for those with high levels of CMD ($\beta=.32$, $t = 2.60$, $p<.02$).

Note that this difference could occur because consumers with low levels of CMD are more likely to ignore harm to others when it occurs by a known company (a reputation effect) or because the lower perceived harm to others in the Mattel scenario was not perceived as negative enough to affect purchase intentions for those with low CMD (a threshold effect). The observation that in the case of Mattel, fairness perceptions do not predict the purchase intentions for those with low CMD ($p>.2$), but predict purchase intentions for those with high CMD ($\beta = .51$, $t = 3.00$, $p<.004$), suggests that the threshold effect is more likely. We disentangle the role of reputation and degree of harm in Study 2.

Discussion

In this study, we examined whether price decreases can ever be perceived as unfair and the role that cognitive moral development plays in moderating these perceptions of price unfairness. Consistent with our hypotheses, we found that price decreases can indeed be perceived as unfair, and that these perceptions depend on both a person's level of cognitive moral development and the manner in which the cost savings are realized. Specifically, cost savings that were effected by harming others (e.g., by paying lower wages to foreign employees or by cutting benefits to employees) led to the resulting price decrease being perceived as less fair than when the price

decrease was effected through cost saving actions that did not harm others (e.g., acquiring new production facilities or savvy investments). The degree to which these actions were perceived as unfair depended on the consumer's level of cognitive moral development. Interestingly, those with low levels of CMD perceived a price decrease that resulted from harm to others as less fair than a price decrease that did not result from harm to others, but fairness perceptions were still roughly at the mid-point of the fairness scale (i.e., the actions were not unambiguously perceived as unfair). For consumers with high levels of CMD, however, such price decreases were seen as unambiguously unfair (i.e., less than the midpoint on the fairness scale).

Perceptions of unfairness, in turn, affected perceptions of the company. Indeed, fairness perceptions partially mediated the effect of harm on perceptions of the company and fully mediated the harm by cognitive moral development interaction on perceptions of the company. We believe that the mediation effects were stronger in the case of the harm by CMD interaction because CMD is more closely linked to ethical standards and norms regarding fairness.

In contrast to the relationship between fairness perceptions and company perceptions, the relationship between fairness perceptions and intentions to buy was less clear. Fairness perceptions were positively related to intentions to buy for Eon, an unknown seller of gas, but not for Mattel, a known doll maker. A closer examination of these findings, however, indicated that this relationship was more complex, depending, in part, on the consumer's level of cognitive moral development. For Eon, consumers at high and low levels of cognitive moral development showed reduced intentions to purchase as perceptions of unfairness increased. However, for Mattel, only consumers at high levels of cognitive development appeared less likely to purchase as their perceptions of the unfairness of the company's actions increased. These differences could be the result of a reputation effect or due to differences in the perceived level of harm (a

threshold effect). Perhaps consumers at low levels of cognitive moral development rely more on reputation as a cue in purchasing decisions, while consumers with high levels of cognitive moral development rely more on the perceived ethicality of the company. Alternatively, the lower level of perceived harm in the Mattel scenario (compared to the perceived harm in the Eon scenario) may have been too low to affect decisions for consumers with low cognitive moral development, but high enough to affect decisions for consumers with high cognitive moral development. These explanations (degree of harm vs. reputation effect) may also explain some of the other product interactions observed (e.g., the product by harm interactions on the dependent measures of fairness perceptions, company perceptions, and purchase intentions). In addition, a reputation effect may explain the finding that the existence of harm lowered intentions to buy for Eon, but not for Mattel (although this finding could also be due to a floor effect, as participants, in general, reported low levels of intention to buy the Mattel doll). Consequently, we examine both the role of reputation and the role of degree of harm in Study 2.

STUDY 2

The results from Study 1 highlight both reputation and level of harm as important moderators (in addition to CMD) of price fairness perceptions amidst price decreases. In addition to these moderators, we also consider the role of firm intentions in Study 2.

Company Intention

Prior research on the fairness perceptions of a price increase has identified company intention behind the price increase as an important moderator. Specifically, Campbell (1999) shows that when consumers infer a positive motive behind the price increase (e.g., price increase funds a charity), they consider the price increase to be more fair than when a negative motive is

inferred (e.g., price increase capitalizes on shortage). Bolton et al. (2003) note that consumers are predisposed to believe that firms are making extra normal profits, and hence, are a-priori more inclined to view any price increase as unfair. For example, Bolton et al. found that consumers ascribe margins of 25-30% to grocery stores in the absence of any information, when in fact, grocery stores earn a razor-thin margin of around 1-2%. These findings suggest that firms need to actively manage the communication process and thus consumers' perceptions.

It is likely that company intention could also impact fairness perceptions in the domain of price decreases. Indeed, Bolton et al. (2003) demonstrate that some methods of achieving profit (e.g., high volume strategy) are perceived as being fairer than others (e.g., high margins). Hence, we expect that the rationale behind a company's decision to reduce prices (especially when this decision results in harm to others) will affect fairness perceptions. Specifically, we expect that actions undertaken to remain competitive will be perceived more positively (i.e., as more fair) than actions undertaken to increase profits. Because consumers believe that firms are entitled to a reference profit, actions undertaken to maintain that profit (i.e., to remain competitive) should be perceived as more acceptable than actions undertaken to increase profits, particularly when these actions result in harm to others. When harm to others is not involved, the reason for the price decrease (to increase profits or to remain competitive) should not matter. Accordingly, we hypothesize that:

H6: Firm intention will moderate the effect of harm on fairness perceptions, such that actions which harm others will be perceived as more fair when they are undertaken to remain competitive compared to when they are undertaken to increase profits.

It is possible that this effect may also be moderated by consumers' level of CMD. Specifically, consumers with high levels of CMD may perceive price decreases effected through actions which harm others as unfair under any circumstances (i.e., regardless of reason) while

price perceptions of those with low levels of CMD may be more affected by the firm's intention, as described in Hypothesis 6.

Effect of Company Reputation

Campbell (1999) has demonstrated that consumers are more likely to infer a positive motive when a reputable firm increases prices, and this makes the price increase seem fairer than a similar price increase by an unknown firm. Presumably, consumers make such inferences because they infer current motives and predict future actions based on the past actions of a firm. Thus, a firm with "goodwill value" or reputation stands to benefit from consumers assigning positive motives to the price increase. Similarly, Xia et al. (2004) reason that the trust placed in a reputable company moderates the negative attributions of a price increase and thus lowers the perceptions of price unfairness. Since consumers place more trust in a reputable firm, and trust attenuates the negative intentions ascribed to the company, it would appear that consumers would be equally willing to ascribe positive intentions to a price decrease by a reputable firm. Accordingly, we hypothesize that:

H7: A price decrease by a reputable firm effected through actions which harm others will be perceived as more fair than one by a less reputable firm.

We also examine whether reputation impacts the relationship between fairness perceptions and purchase intentions. Given research that consumers' brand loyalty affects the degree to which they counter-argue negative information (e.g., Ahluwalia, Burnkrant, and Unnava 2000), the effects of harm and fairness perceptions on purchase intentions may be stronger for low reputation firms compared to high reputation firms. However, these effects could be moderated by the level of harm and/or the consumers' level of CMD.

Additional Process Measures

Finally, to gain a better understanding of the process underlying fairness perceptions, we probed participants to explore whether empathy with employees' plight or principled reasons (as captured by CMD) accounted for respondents' fairness perceptions. Additionally, we explored the extent to which the tradeoff of benefits to self vs. others influenced fairness perceptions and whether CMD impacted the nature of this tradeoff.

Thus, Study 2 seeks to address several limitations of Study 1 while also expanding our inquiry into additional moderators of price fairness perceptions amongst price decreases. Specifically, we examine the roles of CMD, firm reputation, level of harm, and firm intention, as well as delve more deeply into the process behind these effects by assessing the role of empathy and tradeoffs between the benefits to self vs. costs to others.

METHOD

Study 2 uses a 2 x 2 x 3 x 2 between-subjects design, crossing firm reputation (high, low), reason for the price decrease (*intention*: to increase sales, to remain competitive), level of harm (none, low, high), and level of cognitive moral development (low, high). One hundred and eighty-seven undergraduates from an east coast university participated. All responses were collected via computer.

Procedure

The study consisted of two sections. In the first section, participants completed three scenarios from the Defining Issues Test (Rest, 1986), as described in Study 1. In the second

section, participants read a scenario about a bottled water company that had recently decided to reduce prices. The participants then answered several questions about the scenario.

Stimuli

The stimulus consisted of a scenario describing a bottled water company's decision to decrease prices. The experimental factors of *company reputation*, *intention*, and *level of harm* were manipulated by including different pieces of information in the basic scenario. *Company reputation* was manipulated via the brand name of the bottled water. Based on a pre-test (N = 30), Poland Spring was selected as the high reputation brand (M = 2.2 on 1-10 scale, where 1 = "good company" and 10 = "bad company") and Evolution Water (a fictitious brand) was selected as the low reputation brand (M = 4.6, t = 7.02, p < .0001).

Intention was manipulated through the rationale given for the cost-cutting measures that had been undertaken in order to reduce prices. Participants in the *increase sales* conditions read that "[the cost-cutting measures have] enabled Poland Spring (Evolution Water) to reduce its retail price and yet increase its profits through increased sales." Those in the *remain competitive* condition, read that "[the cost-cutting measures have] enabled Poland Spring (Evolution Water) to reduce its retail price and stay competitive, while maintaining its profits."

Level of harm was manipulated through the specific cost-cutting measures used. In the *no harm* condition, participants were told that the company had acquired a new, cheaper source for its mineral water. In the *low harm* condition, participants were told that the company had eliminated bonuses for all of its employees. In the *high harm* condition, participants were told that the company had eliminated health care benefits for all of its employees. The low and high harm actions were selected based on a pre-test (N = 30) in which participants were presented

with seven different cost-cutting options (reducing salaries, eliminating bonuses to employees, eliminating retirement benefits, laying off employees, outsourcing jobs to foreign countries to lower labor costs, reducing health care benefits to employees, and requiring more work for the same amount of pay by eliminating overtime pay) and asked to rank them from “worst (1) (i.e., most objectionable)” to “best (7) (i.e., least objectionable)” with respect to the pain it inflicts on others. Reducing health care benefits to employees was ranked as the most objectionable of the seven options ($M = 2.6$), while eliminating bonuses was ranked as the least objectionable ($M = 5.5$). Example scenarios appear in the Appendix.

Dependent Measures

Price unfairness ($\alpha = .78$) and *purchase intention* were measured using items similar to those used in Study 1.

To assess the degree to which participants may have empathized with the employees described in the scenario, we asked “To what extent do you empathize or feel for the employees of [company]?” (1 = not at all, 7 = very much).

To assess the costs and benefits of the price reduction to the individual we asked a series of four questions: (1) To what extent do you see a price decrease in bottled water as being beneficial to you? (1 = not at all beneficial, 7 = very beneficial); (2) To what extent do you feel that this price decrease has been at the cost of employees? (1 = not at all at cost of others, 7 = very much at cost of others); (3) To what degree has the price decrease positively impacted others other than yourself? (1 = has not helped others at all, 7 = has helped others a lot); and (4) To what extent do you think the benefit to you outweighs the harm caused to others? (1 = harm

to others much greater than the benefit to me, 4 = equal, 7 = benefit to me much greater than harm to others).

Manipulation Checks. We assessed whether the harm manipulation was successful by asking participants to rate how much they thought others were harmed by the company's actions (1 = not harmed at all, 7 = harmed a lot). We assessed whether the intention manipulation was successful by asking participants to indicate whether they thought the reason the company dropped prices was (a) to increase profits or (b) to maintain profits. We assessed whether the reputation manipulation was effective by asking participants to rate the company on two scales: bad company (1) / good company (7) and unknown company (1) / known company (7).

RESULTS AND DISCUSSION

Manipulation Checks

To examine the effectiveness of the harm and company reputation manipulations, we conducted 2 (reputation: low, high) x 2 (intention: remain competitive, increase profit) x 3 (harm: none, low, high) x 2 (CMD-level: low, high) ANOVAs. There was a significant effect of reputation on both reputation measures. Those in the high reputation condition rated the company as a better company ($M = 5.1$) than those in the low reputation condition ($M = 3.8$; $F(1, 163) = 41.77, p < .0001$). Also, the high reputation company was rated as better known ($M = 6.3$) than the low reputation company ($M = 2.5$; $F(1, 163) = 281.86, p < .0001$).

To examine the effectiveness of the intention manipulation, we used logistic regression. There was a significant effect of reason on the manipulation check measure ($\chi^2 = 10.50, p < .002$); however, closer examination of the means revealed that a large proportion of the participants in the "remain competitive" condition (74%) indicated that they believed the reason the company

reduced prices was to “increase profit.” Consequently, we used the perceived reason, rather than the assigned reason, in the analyses below⁴.

Effects of Harm, Reputation, Intention and CMD on Fairness Perceptions

To examine the effects of harm, reputation, intention, and CMD on fairness perceptions and purchase intentions, we conducted 2 (reputation: low, high) x 2 (perceived intention: remain competitive, increase profits) x 3 (level of harm: none, low, high) x 2 (CMD-level: low, high) ANOVAs. There were significant effects of harm ($F(2, 163) = 11.64, p < .0001$) and intention ($F(1, 163) = 3.92, p < .05$) on participants’ fairness perceptions, as well as a significant harm by intention by CMD level interaction ($F(2, 163) = 3.24, p < .05$). An examination of the main effect of *harm* revealed that as the degree of harm increased, perceptions of fairness decreased, such that participants viewed the price decrease as most fair when no harm existed ($M = 5.1$) and least fair in the high harm condition ($M = 3.2$), with the low harm condition in the middle ($M = 4.1$; all pair-wise comparisons significant, p ’s $< .04$). These results support Hypothesis 1b. The main effect of *intention* was such that participants viewed the price reduction as more fair when cost-cutting measures which enabled the reduction were instituted to remain competitive ($M = 4.4$) as opposed to when they were instituted to increase profits ($M = 4.1$). These results are consistent with Hypothesis 6.

The significant three-way interaction (harm by intention by CMD interaction) shows that fairness perceptions depend on the degree of harm, the individual’s level of CMD, and the rationale behind the cost-cutting measures. As can be seen in Table 3, when participants perceive the firm’s actions are undertaken to remain competitive, those with low CMD view the

⁴ Note that this manipulation failure, unfortunately, resulted in some inadequate cell sizes in the “remain competitive” conditions. These cell means are italicized in the Results Tables.

firm's actions as more unfair when these actions entail high harm to others ($M = 3.7$) as opposed to low harm to others ($M = 5.4$). By contrast, they perceive the low harm and no harm conditions similarly ($p > .3$). However, participants with high CMD view the firm's actions as most fair when others are not harmed ($M = 6.3$) compared to when others are harmed either a little ($M = 4.0$) or a lot ($M = 4.0$). Interestingly, when participants perceive that the firm's actions are undertaken to increase profits, then those with low CMD and high CMD respond similarly, with actions entailing low harm to others being perceived as less fair than actions which do not harm others, and actions entailing high harm being seen as more unfair than those which entail low harm.

INSERT TABLE 3

Effects of Harm, Reputation, Intention and CMD on Purchase Intentions

There were main effects of reputation ($F(1, 163) = 5.21, p < .03$) and level of harm ($F(2, 163) = 6.33, p < .003$) on purchase intentions. Participants who saw the high reputation brand reported higher purchase intentions ($M = 4.7$) than those who saw the low reputation brand ($M = 4.0$). Participants in the high harm conditions reported lower purchase intentions ($M = 3.6$) than those in the no harm ($M = 4.9, p < .01$) and low harm ($M = 4.7, p < .005$) conditions. There was no difference in purchase intentions for those in the low and no harm conditions ($p > .7$).

Fairness perceptions did predict purchase intentions ($\beta = .40, t = 6.81, p < .0001$). In order to provide greater insight into the roles reputation and level of harm may have played in Study 1, we also examined the relationship between fairness perceptions and purchase intentions by CMD-level, reputation, and level of harm. In Study 1, fairness perceptions predicted purchase intentions for Eon, but not Mattel. Further analysis revealed that this lack of effect for Mattel

only occurred among participants with low CMD (i.e., fairness perceptions did predict purchase intentions for high CMD individuals). We suggested these effects could be due to a reputation effect (low level CMD individuals may have been more likely to ignore harm committed by a known company) or a threshold effect (harm committed by Mattel may not have been large enough to affect intentions for low CMD individuals). If low CMD consumers are more likely to ignore harm committed by a known company (reputation effect), then fairness perceptions should predict purchase intentions for the high reputation firm in Study 2, but not the low reputation firm (for low CMD individuals). However, this was not the case – fairness perceptions predicted purchase intentions for both the low and high reputation firms (β 's > .50, p 's < .0005) in Study 2. If low CMD consumers did not perceive the level of harm as high enough to matter in Study 1 (a threshold effect), then fairness perceptions should only have impacted purchase intentions for individuals with low CMD when the level of harm was high in Study 2. This hypothesis also fails to be supported, as fairness perceptions and purchase intentions were related at all three levels of harm (p 's < .05). These results suggest some other factor (potentially the low overall purchase intentions for Mattel) accounts for the lack of effect of fairness perceptions on purchase intentions for Mattel in Study 1.

Process Measures

To try and understand these results further, we examined two process measures: (a) empathy with employees and (b) perceived benefits to self compared to harm to others. First, we examined the effect of harm, intention, and CMD-level on the degree participants empathized with employees. Surprisingly, there was no significant effect of CMD-level on this measure ($F < 1$). However, there was a significant effect of harm ($F(2, 163) = 7.78, p < .0007$), as well as a

significant harm by intention ($F(2, 163) = 4.02, p < .02$) interaction. Participants indicated greater empathy for the employees in the high harm cell ($M = 5.8$) than in the low harm cell ($M = 5.0, p < .01$) or the no harm cell ($M = 4.4, p < .0003$); empathy for the employees in the low harm cell was not significantly greater than for the no harm cell ($p > .08$).

INSERT TABLE 4 HERE

As can be seen in Table 4, participants reported significantly less empathy for employees when no harm was committed than when a great degree of harm was committed, regardless of the reason for the harm (i.e., the company's intention). However, for a low degree of harm, the company's intention did matter. Participants viewed a small degree of harm committed to help the company stay competitive similarly to the no harm situation, but perceived a small degree of harm committed to help the company increase profits similarly to the high harm situation. Consequently, participants reported significantly greater empathy for employees in the low harm-increase profits cell than they did for employees in the low harm-stay competitive cell.

In addition to examining the degree of empathy participants felt for employees, we also examined to what degree participants felt that the benefits of the price decrease (to them) outweighed the harm to others. There were significant effects of reputation ($F(1, 163) = 5.03, p < .03$), harm ($F(2, 163) = 17.28, p < .0001$), and intention ($F(1, 163) = 4.50, p < .04$), as well as a significant reputation by intention interaction ($F(1, 163) = 5.50, p < .03$) on this "tradeoff" measure. No other effects (including those involving CMD) were significant. Participants rated the benefits to themselves as greater than the harm to others when no harm to others was committed ($M = 4.5$; recall 1 = "harm to others greatly outweighs benefits to me" and 7 = "benefits to me greatly outweigh harm to others"). The degree to which harm to others was greater than the benefits to the self was larger for a high level of harm ($M = 2.3$) than it was for a

low level of harm ($M = 3.1$, $p < .003$). The means in both the low harm and high harm conditions were significantly lower than the no harm condition (p 's $< .002$).

Harm to others was perceived as outweighing benefits to the self to a greater degree when the company had a low reputation ($M = 3.2$ for low reputation, $M = 3.4$ for high reputation) or had instituted the price decrease and cost-cutting measures to increase profits ($M = 3.6$ for 'remain competitive,' $M = 3.3$ for 'increase profits'). As can be seen in Table 5, these results were driven by the high reputation condition. For firms with high reputation, harm to others and benefits to self were perceived roughly equally (i.e., at the scale mid-point) when the price decrease and cost-cutting measures were initiated to stay competitive, but the harm to others was perceived as greater than the benefits to self when the actions were undertaken to increase profits.

INSERT TABLE 5 HERE

Discussion

Study 2 provides further evidence that price decreases can be perceived as unfair and greater insight into the role of reputation, level of harm, and cognitive moral development as moderators of these perceptions. Although consumers perceive price changes as being increasingly unfair as the degree of harm to others increases, the point at which consumers react to these changes depends on both the company's intentions and the consumer's level of cognitive moral development. When firms harm employees in order to increase profits, consumers view such actions as unacceptable regardless of their level of cognitive moral development – as the level of harm increases, perceptions of fairness decrease. However, when the firm acts to remain competitive, cognitive moral development matters – any level of harm is viewed as unacceptable

by those at high levels of cognitive moral development (resulting in decreased perceptions of fairness), while only high levels of harm negatively impact perceptions of fairness for those with low levels of cognitive moral development. These results partially support Hypothesis 2b.

Purchase intentions are affected by fairness perceptions, with consumers less likely to purchase the more they viewed the company's actions as unfair. In general, participants reported the lowest purchase intentions in situations in which a high level of harm was committed; however, purchase intentions did not differ significantly for those in the low and no harm conditions. Reputation also impacted fairness intentions, with consumers showing a greater likelihood of purchasing from a high reputation firm than from a low reputation firm. These results were not moderated by CMD, suggesting consumers' ethicality only affects purchase decisions indirectly through fairness perceptions.

Finally, we sought to examine how CMD may be influencing perceptions and intentions to buy. Specifically, we examined the role of empathy and the degree to which participants viewed the benefits of the price decrease to them as greater than the harm committed to others. Surprisingly, there was no effect of cognitive moral development on the degree to which participants empathized with the employees described in the scenarios. Rather, empathy appeared to be based on the company's intention (i.e., reason for the harm) and the degree of harm. Similarly, judgments about the relative costs and benefits of the price decrease were also affected by the degree of harm, the company's intentions, and the company's reputation. These findings suggest that consumers may rely more on a rational application of their moral principles when determining judgments of price unfairness rather than emotions, a point we explore further in the general discussion section.

DISCUSSION AND CONCLUSIONS

The focus of prior research in price fairness has been on the factors affecting the fairness perceptions of price increases; the implicit assumption being that price decreases are deemed acceptable. In this paper, we question this assumption and explore the conditions under which a price decrease can be perceived as being unfair. In doing so, we expand our understanding of consumers' price fairness perceptions, and in particular, our understanding of how consumers assess price decreases.

Our results indicate that price decreases can be perceived as unfair and highlight additional factors (source of the price decrease, whether and to what extent actions undertaken to cut prices harm others, cognitive moral development, firm reputation, and firm intention) that affect fairness perceptions. Taken as a whole, our findings indicate that consumers are not always self-motivated and the process affecting the formation of fairness perceptions for price decreases is as complex as that for price increases. In both Study 1 and Study 2, we demonstrate that price decreases can be seen as unfair and that these fairness perceptions are affected by the cognitive moral development of the individual and the manner in which the cost decrease is effected. Those with higher levels of CMD view price decreases effected by harming others as more unfair than those with lower levels of CMD. Further, we find that consumers do not perceive all harms equally, although the degree to which actions are perceived as harmful depends on CMD. Price decreases effected by cost savings that place others at physical risk (e.g., reducing health care benefits) are seen as more unfair than those effected by cost savings which involve economic harm (e.g., eliminating bonuses). However, the impact of these perceived harms on fairness perceptions depends on both the consumers' level of CMD and the perceived intention of the company. When firms harm employees in order to increase profits,

consumers view such actions as unacceptable regardless of their level of cognitive moral development – as the level of harm increases, perceptions of fairness decrease. However, when the firm acts to remain competitive, cognitive moral development matters – any level of harm is viewed as unacceptable (resulting in decreased perceptions of fairness) by those at high levels of cognitive moral development, while only high levels of harm negatively impact perceptions of fairness for those with low levels of cognitive moral development.

These findings suggest that fairness perceptions may result from a judgment process involving various thresholds for what constitutes unacceptable behavior, with cognitive moral development impacting how these thresholds are set. It appears that individuals with higher levels of cognitive moral development have a low threshold for what constitutes acceptable behavior compared to those with lower levels of cognitive moral development. Thus, for consumers with high levels of cognitive moral development, small economic harms fall above the threshold of acceptability, leading to increased perceptions of price unfairness. By contrast, for low cognitive moral development individuals, small economic harms fall below the threshold of acceptability, and hence, such actions are perceived similarly to those which do not entail any harm at all.

However, the type of harm inflicted is not the only factor affecting the judged level of harm; the firm's intention also affects these judgments. Harming others to increase profits is seen as less acceptable (more unfair) than harming others to remain competitive. When the additional slight of an unacceptable motive is added to the lower level of perceived harm caused by a small economic harm, the total level of harm is increased, bringing it above the low CMD consumers' threshold. Consequently, consumers with low CMD view the fairness of such prices similarly to those with high CMD.

This threshold model is consistent with our findings regarding how consumers view the benefits to themselves relative to the costs to others. The threshold model suggests that both harm and intention affect this tradeoff, and indeed, we find direct effects of both these constructs on the tradeoff measure. As the level of harm increases, the scale balance shifts with “costs to others” outweighing “benefits to self.” Similarly, when consumers perceive the firm’s intention is to “increase profits” as opposed to “remain competitive,” they are more likely to see “costs to others” as outweighing “benefits to the self.” Interestingly, these tradeoffs are not influenced by CMD which indicates that all individuals, regardless of their CMD score, view the costs to others outweighing the benefits to self similarly when the level of harm increases and a profit motive is ascribed to the company. However, Study 1 and 2 indicate that CMD does moderate fairness perceptions. This finding, in conjunction with the result that CMD does not differentially influence the trade-off, suggests that although individuals perceive the costs to others similarly, these perceptions do not translate into an unfairness perception, unless the costs to others exceeds the individual’s threshold (which is affected by the individual’s CMD).

Consistent with prior research, we also find that fairness perceptions have real implications for the firm. In Study 1, we demonstrate that fairness perceptions affect perceptions of the company, with consumers viewing a company less positively when they use tactics to decrease prices that harm others. In addition, we find that fairness perceptions affect future purchase intentions, a finding which we also replicate in Study 2. Although fairness perceptions impact purchase intentions, we do not find any direct effect of CMD on purchase intentions in Study 1 or Study 2. This finding suggests that CMD affects purchase intentions indirectly through fairness perceptions.

Managerial Implications

These findings have both practical and theoretical significance. Firms are increasingly adopting different ways to stay competitive (e.g., outsourcing, reducing jobs and benefits), without considering the impact of such actions on consumers' price perceptions. The implicit assumption seems to be that lower prices are always better and well received by the end consumer. However, our results suggest firms must be concerned with the ethicality of their actions, even when these actions are undertaken to (ostensibly) benefit the consumer (i.e., through lower prices). The process by which competitive prices are delivered (e.g., eliminating bonuses vs. eliminating health benefits) matters in terms of price fairness perceptions. This effect is seen across all individuals, regardless of their cognitive moral development.

Our findings also highlight the importance of managing the communication process even for price decreases. Consumers are inclined to believe that firms are self-motivated (e.g. Bolton et al. 2003). Despite explicitly telling participants in Study 2 that the firms had undertaken their cost-cutting actions to remain competitive, a large proportion still believed the firm had undertaken these actions to increase profits. Thus, firms must work to convince consumers that they are not self-motivated, even when initiating a price decrease. This communication is particularly important because our findings indicate that consumers are more accepting of price decreases which harm others when the harmful cost-cutting actions are undertaken to remain competitive compared to when they are undertaken to increase profits.

Managers also need to take into account individual differences in consumers' sensitivity to fairness issues, as Xia et al. (2004) have argued. In our paper, we show that CMD, a variable adopted from the marketing ethics literature, can be a useful variable for distinguishing among consumers in terms of their sensitivity to price fairness. Those with high levels of CMD are

more sensitive to harm to others, perceive decreases which harm others as more unfair, and may view firms which do not harm others more positively than those with low CMD. By recognizing the importance of this variable and the existence of two different segments of consumers (those with low levels of CMD and those with high levels of CMD), managers should be better able to manage consumers' reactions to price changes. Since cognitive moral development has been found to increase with age and education (Goolsby and Hunt 1992; Ho et al. 1997), managers may be able to use these variables to identify product markets comprised primarily of individuals with high CMD. In such markets, managers will need to be particularly careful about how competitive prices are delivered and communicated.

Theoretical Contributions and Future Work

In addition to these managerial implications, our work makes several theoretical contributions. We extend the price fairness literature to the realm of price decreases. In doing so, we not only address the effect of known moderators (reputation and intention) in this new domain, but also highlight additional moderators that affect price fairness perceptions (source of the cost decrease, (level of) harm to others, and cognitive moral development).

Our enquiry also broadens the traditional focus in price fairness research (based on dual-entitlement) from the firm-consumer dyad to a triad which also includes the employee. As a result of this broadened focus, we highlight a whole new class of factors (harm to others) that may impact fairness perceptions. Although we specifically focus on harm to employees in our research, it is possible that harm to other entities also matter. For example, the flouting of environmental regulations could be seen as a violation of a consumers' entitlement to a clean and safe environment or the environment could be perceived as an "other" that might be harmed.

Thus, similar research could be conducted to determine whether firms that cut costs by flouting environmental regulations suffer repercussions stemming from price unfairness perceptions.

We also focus our enquiry on harm to employees in general. Future research may want to examine how these effects depend on characteristics of the employee. For example, does the similarity of the “harmed other” moderate the effects of harm on fairness perceptions? In particular, do US consumers perceive harm (and consequently, fairness) differently if a US employee is harmed compared to a non-US employee?

Our research serves to integrate both the price fairness literature and the business ethics literature. In doing so, we identify an additional construct – cognitive moral development – that has the power of predicting and explaining responses to price changes. Also, unlike earlier papers that have measured CMD at the managerial level, we measure CMD at the consumer level and demonstrate the explanatory power of this construct at the consumer level in terms of explaining consumers’ reactions to price changes.

Although our work serves to increase our understanding of consumers’ responses to price decreases and provides several useful findings for managers, it represents only an initial foray into the examination of issues affecting fairness perceptions for price decreases. While we examine numerous factors that may affect such perceptions (e.g., cognitive moral development, level of harm, source of the cost decrease, firm reputation, and firm intentions), our research also raises many questions for future research. For example, we only examine a few sources of cost-cutting measures. Additional research may want to explore the full scope of company actions on price fairness perceptions, including ranking actions according to perceived level of harm. For example, is the outsourcing of jobs or laying off of employees perceived as more unfair when firms try to lower costs and prices?

Future research could also delve more deeply into the process behind the formation of price unfairness perceptions. In particular, a more formal examination of the role of emotions in fairness perceptions would be a welcome addition. One possibility is for research based on the inequity aversion theory of Fehr and Schmidt (1999) to determine if envy is involved in a case of disadvantaged equity and guilt is involved in advantaged equity. Such a research direction would be consistent with Xia et al.'s (2004) call for more research into the emotional content of price unfairness perceptions.

Finally, our paper demonstrates the influence of cognitive moral development on consumers' price unfairness perceptions. This successful integration of the price unfairness literature with the business ethics literature highlights the role of moral reasoning/ standards in fairness judgments. However, as moral standards differ across cultures, the opportunity exists for cross-cultural research of fairness perceptions and standards. Similar work could also be advanced along ethnic lines, as there is some evidence to indicate that Hispanics and Caucasians place different emphasis on social utility (as opposed to individual utility) given their ethnic background (Maxwell 1995).

Conclusion

Consumers are not always self-motivated, and consequently, do not always perceive a price decrease as fair. In this research, we provide evidence of this and delineate some of the factors that influence fairness perceptions for price decreases. In particular, we integrate the price fairness and business ethics literatures, highlighting the usefulness of cognitive moral development for understanding price fairness perceptions and for explaining individual differences in sensitivity to price fairness issues. In addition, we expand the principle of dual

entitlement, considering not just the traditional consumer-firm dyad, but expanding our focus to include the employee as well. In so doing, we highlight an additional factor - harm to others - which plays a role in fairness perceptions. Finally, we also demonstrate how price fairness perceptions in the realm of price decreases are affected by both company reputation and company intentions. Our findings provide new insights into understanding price fairness perceptions and offer guidance to managers for managing consumers' reactions to price changes.

APPENDIX

Example Scenarios from Study 1

Eon Corp. is a mid-sized corporation that owns several gas stations in the state. Eon has laid off several of its long term employees and slashed benefits for the remaining ones. The company has been so successful at this that it has actually reduced its operating costs and improved its bottom line. The company has decided to pass on the savings from the layoffs to the consumers in the form of reduced gas prices.

(Eon, Harm Present)

Eon Corp. is a mid-sized corporation that owns several gas stations in the state. Because of its large investments in oil contracts in the Middle East, the company has been able to make substantial investment gains. The company has been so successful at this that it has been able to drop gas prices in the face of rising crude oil prices.

(Eon, Harm Absent)

Example Scenarios from Study 2

Evolution Water is a seller of bottled water. Most recently, as part of its cost-cutting measures, the company has acquired a new, cheaper source for its mineral water. This has enabled Evolution Water to reduce its retail price and yet increase its profits through increased sales.

(Low Reputation, Increase Sales, No Harm)

Evolution Water is a seller of bottled water. Most recently, as part of its cost-cutting measures, the company has eliminated bonuses for all of its employees. This has enabled Evolution Water to reduce its retail price and stay competitive, while maintaining its profits.

(Low Reputation, Remain Competitive, Low Harm)

Poland Spring is one of the leading sellers of bottled water. Most recently, as part of its cost-cutting measures, the company has eliminated health care benefits for all of its employees. This has enabled Poland Spring to reduce its retail price and yet increase its profits through increased sales.

(High Reputation, Increase Sales, High Harm)

REFERENCES

- Ahluwalia, Rohini, Robert E. Burnkrant, and H. Rao Unnava (2000), "Consumer Response to Negative Publicity: The Moderating Role of Commitment," *Journal of Marketing Research*, 37 (May), 203-214.
- Baron, Reuben M and David A Kenny (1986), "The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations," *Journal of Personality & Social Psychology*, 51, 1173-1182.
- Bei, Lien-Ti and Yu-Ching Chiao (2001), "An integrated model for the effects of perceived product, perceived service quality, and perceived price fairness on consumer satisfaction and loyalty" , *Journal of Customer Satisfaction, Dissatisfaction, and Complaining Behavior*, 14, 125-40.
- Bolton, Lisa E., Luk Warlop, and Joseph W. Alba (2003), "Explorations in Price (Un) Fairness", *Journal of Consumer Research*, 29 (March), 474-491.
- Camerer, Colin and Richard H Thaler (1995), "Anomalies: Ultimatums, dictators, and manners," *Journal of Economic Perspectives*, 9 (2), 209-219.
- Campbell, Margaret C. (1999) "Perceptions of Price Unfairness: Antecedents and Consequences," *Journal of Marketing Research*, 36 (May), 187-199.
- Collins, Denis (1989), "Organizational Harm, Legal Condemnation and Stakeholder Retaliation: A Typology, Research Agenda and Application," *Journal of Business Ethics*, 8 (1), 1-13.
- ElBoghdady, Dina (2006), " Industry Veteran to Lead Giant; Parent Company Seeks to Boost Grocer's Market Share", *Washington Post.com*, April 5.
- Fehr, Ernst and Klaus M. Schmidt (1999), "A theory of fairness, competition and cooperation," *The Quarterly Journal of Economics*, 114, 817-868.
- Goolsby, Jerry R. and Shelby D. Hunt (1992), "Cognitive Moral Development and Marketing," *Journal of Marketing*, 56 (January), 55-68.
- Heider, Fritz (1958), *The psychology of interpersonal relations*, New York: Wiley.
- Ho, Foo Nin, Scott J. Vitell, James H. Barnes, and Rene Desborde (1997), "Ethical Correlates of Role Conflict and Ambiguity in Marketing: The Mediating Role of Cognitive Moral Development," *Journal of the Academy of Marketing Science*, 25 (Spring), 117-126.
- Hunt, Shelby D. and Scott M. Vitell (1986), "A General Theory of Marketing Ethics," *Journal of Macro marketing*, 6 (Spring), 5-15.

- Hunt, Shelby D. and Scott Vitell (1993), "The General Theory of Marketing Ethics: A Retrospective and Revision," in *Ethics in Marketing*, N.C. Smith and J.A. Quelch eds., Homewood, IL: Richard D. Irwin, 775-784.
- Huppertz, John W., Sidney J. Arenson, and Richard H. Evans (1978), "An Application of Equity Theory to Buyer- Seller Exchange Situations," *Journal of Marketing Research*, 15 (2), 250-60.
- Kahneman, Daniel, Jack L. Knetsch, and Richard H. Thaler (1986a), "Fairness and the Assumptions of Economics," *Journal of Business*, 59 (4), 285-300.
- Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler (1986b), "Fairness as a Constraint on Profit Seeking Entitlements in the Market," *The American Economic Review*, 76 (September), 728-41.
- Keeton, Werdner Page (1984), *Prosser and Keeton on the Law of Torts*, West Publishing Company: St Paul, Minnesota.
- Kohlberg, Lawrence (1969), "Stage and sequence: the cognitive approach to socialization," in *Handbook of socialization theory and research*, Goslin, D.A., ed. Chicago: Rand McNally.
- Labroo, Aparna A. and Alice M. Isen (2003), "Positive Affect Increases Concern for Fairness," working paper, Cornell University.
- Loewenstein, George, Leigh Thompson, and Max Bazerman (1989), "Social Utility and Decision Making in Intertemporal Contexts," *Journal of Personality and Social Psychology*, 57, 426-441.
- Maxwell, Sarah (1995), "What Makes a Price Increase Seem 'Fair'?" *Pricing Strategy & Practice*, 3 (4), 21-27.
- Maxwell, Sarah (2002), "Rule-Based Price Fairness and its Effect on Willingness to Purchase," *Journal of Economic Psychology*, 23(2), 191-212.
- Maxwell, Sarah, Pete Nye, and Nicholas Maxwell (1999), "Less Pain, Some Gain: The Effects of Priming Fairness in Price Negotiations," *Psychology & Marketing*, 16 (7), 545-62.
- Oliver, Richard L. and John E. Swan (1989), "Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach," *Journal of Marketing*, 53 (April), 21-35.
- Peloza, John (2005), "Corporate Social Responsibility as Reputation Insurance," Center for Responsible Business, Working Paper Series, Paper 24, <http://repositories.cdlib.org/crb/wps/24>.
- Petty, Richard E and Jon A. Krosnick (1995), *Attitude Strength: Antecedents and Consequences*, Mahwah, NJ: Lawrence Erlbaum Associates.

- Ponemon, Lawrence, and Gabhart, David (1990), "Auditor independence and judgments: A cognitive-developmental model and experimental evidence," *Contemporary Accounting Research*, 7, 227-251.
- Rabin, Matthew (1993), "Incorporating fairness into game theory," *American Economic Review*, 83 (December), 1281-1302.
- Rest, James (1979), *Development in judging moral issues*, Minneapolis, MN: University of Minnesota Press.
- Rest, James (1986), "DIT: Manual for the Defining Issues Test," Minneapolis: University of Minnesota Center for the Study of Ethical Development.
- Smith, N. Craig and Elizabeth Cooper-Martin (1997), "Ethics and Target Marketing: The Role of Product Harm and Consumer Vulnerability," *Journal of Marketing*, 61 (July), 1-20.
- Smith, Heather J, Tom R. Tyler, Yuen J Huo, Daniel J Ortiz, and Allan E Lind (1998), "The self-relevant implications of the group-value model: Group membership, self-worth, and treatment quality," *Journal of Experimental Social Psychology*, 34(5), 470-493.
- Thoma, Stephen J., Robert Barnett, James Rest, and Darcia Narvaez (1999), "Political identity and moral judgment development using the Defining Issues Test," *British Journal of Social Psychology*, 38, 103-111.
- Trevino, Linda Klebe (1986), "Ethical Decision Making in Organizations: A Person- Situation Interactionist Model," *The Academy of Management Review*, 11(3), 601-617.
- Vaidyanathan, Rajiv and Praveen Aggarwal (2003), "Who Is the Fairest of Them All? An Attributional Approach to Price Fairness Perceptions," *Journal of Business Research*, 56 (6), 453-63.
- Walster, Elaine H., G. William Walster, and Ellen Berscheid (1978), *Equity: Theory and Research*, Boston: Allyn & Bacon.
- Xia, Lan, Kent B Monroe, and Jennifer L Cox (2004), "The Price is Unfair! A Conceptual Framework of Price Fairness Perceptions," *Journal of Marketing*, 68 (October), 1-15.

Table 1. Effect of Harm and Cognitive Moral Development on Fairness and Company Perceptions (Study 1)

	<i>Low CMD</i>		<i>High CMD</i>	
	No Harm	Harm	No Harm	Harm
Fairness Perception	5.3 ^{a,c}	3.9 ^{b,c}	5.7 ^{a,d}	3.0 ^{b,d}
Perception of Company	4.8 ^g	3.8 ^{e,g}	5.1 ^f	3.4 ^{e,f}

^a p<.1

^e p<.01

^b p<.0005

^{c,d,f,g} p<.0001

Table 2. Effect of Harm By Scenario (Study 1)

	<i>Eon Scenario</i>		<i>Mattel Scenario</i>	
	No Harm	Harm	No Harm	Harm
Fairness Perception	5.5 ^a	3.1 ^{a,b}	5.4 ^c	4.1 ^{b,c}
Perception of Company	5.0 ^f	3.4 ^{d,f}	4.9 ^e	3.8 ^{d,e}
Purchase Intention	5.8 ^{h,i}	4.1 ^{g,h}	2.4 ⁱ	2.2 ^g

^{a,b,c,d,e,f,g,h,i} p<.0001

Table 3. Effect of Intention, Harm, and CMD on Fairness Perceptions (Study 2)

	<i>Remain Competitive</i>			<i>Increase Profits</i>		
	No Harm	Low Harm	High Harm	No Harm	Low Harm	High Harm
Low CMD	4.3	5.4 ^{d,e}	3.7 ^d	5.1 ^{h,i}	3.9 ^{e,g,h}	2.9 ^{g,i}
High CMD	6.3 ^{a,b}	4.0 ^a	4.0 ^b	5.0 ^{c,j}	4.1 ^{c,f}	3.2 ^{f,j}

NOTE: Italicized cell mean indicates n ≤ 6.

^{a,b,c,d,e,f} p<.05

^g p<.01

^h p<.001

^{i,j} p<.0001

Table 4. Effect of Harm and Company Intention on Empathy (Study 2)

	No Harm	Low Harm	High Harm
Stay Competitive	4.2 [*]	4.5 [*]	5.9 [#]
Increase Profits	4.5 [*]	5.7 [#]	5.5 [#]

Italicized number means n≤6

All ‘*’ cells significantly less than all ‘#’ cells (p’s < .05)

Table 5. Effect of Company Reputation and Intention on ‘Harm to Others vs Benefits to Self’ Tradeoff (Study 2)

	Stay Competitive	Increase Profits
Low Reputation	3.3 ^a	3.3 ^b
High Reputation	3.9 ^{a,b,c}	3.3 ^c

^a p<.05

^{b,c} p<.005