

Perceptions of Fair Pricing

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Introduction

Economic theory predicts that market efficiencies are greatest when firms maximize their self-interests. Yet the actions of some firms seem contrary to this prediction. In 1982, Johnson & Johnson faced a public relations disaster. One of their products, Tylenol, had been laced with cyanide. Johnson & Johnson immediately took Tylenol off the shelves, designed a tamper-resistant bottle, and worked extensively with law-enforcement agencies to find and prosecute those responsible. When interviewed, Johnson & Johnson executives, far from taking their bows, simply said, “We believe our first responsibility is to the doctors, nurses, and patients, to the mothers and fathers, and to all others who use our products and services.”

One could argue that Johnson & Johnson’s actions were consistent with economic theory. Fair play and goodwill could be profitable long-term strategies. But an alternative explanation for Johnson & Johnson’s behavior is a desire to be fair and “do the right thing”, even in situations that preclude enforcement (1986; Kahneman, Knetsch et al. 1986).

What, exactly, does it mean to be fair? This chapter focuses on consumer perceptions of fair pricing. When is it fair for a firm to raise prices, to maintain prices, or to decrease prices? Before discussing when changes in prices are fair, it is useful to consider the processes involved in the initial assessments of prices. Consumer behavior researchers have shown that, when unfamiliar with a product, consumers gather information in the form of television ads, print ads, and conversations with family and friends. They form a reference price and compare it to actual prices. (For more on reference prices, see (Liu and Soman 2006). Pre-purchase reference prices can be based

on many factors including previous prices, firms' perceived profits, and the costs firms encounter in bringing products to market (Bolton, Warlop et al. 2003). Even expected future prices have been shown to affect evaluations of current prices (Jacobson and Obermiller 1990). Regardless of how the reference price is formed, actual prices below the reference price are usually perceived as fair, and those above are viewed as unfair.

If an exchange occurs, consumers compare their product expectations against their actual experiences (Levin and Gaeth 1988; Heath, Larrick et al. 1999). Product expectations arise from personal knowledge, store-based information, and other people's experiences. If the product falls short of expectations, consumers are likely to be dissatisfied and perceive the exchange as unfair (Hunt and Nevin 1981). If the product lives up to expectations or even exceeds expectations, consumers will be satisfied and accept the exchange as fair. Furthermore, some consumers will purchase the product again. With repeat purchases, consumers evaluate fairness by comparing new prices to the earlier price or prices paid by others.

Dual Entitlement

Firms increase prices for several reasons. Economic theory says they raise prices when the cost of producing goods or services becomes higher. They also raise prices when they can benefit from either an excess of consumer demand or a shortage of product supply. Kahneman, Knetsch, and Thaler (1986) showed that not all of these reasons for increasing prices are viewed as fair. Based on responses to a national survey conducted in Canada, the researchers found that consumers believe it is fair for a firm to raise prices when costs increase. For example, it is fair for a firm to raise the price of a table if the cost of the raw materials is higher. Likewise, it is fair for a fancy hotel to

charge more than a nearby grocery store for a cold beer. However, it is unfair for a firm to profit from excess demand. Consumers are unhappy when a hardware store raises the price of snow shovels from \$15 to \$20 after a large snowstorm. Moreover, it is unfair for a firm to profit from a shortage of supply by auctioning off the last of a popular toy to the highest bidder.

These assertions depend, of course, on the motives of the firm. If a hardware store increases the price of snow shovels after a large snowstorm and gives the funds to a local homeless shelter or if a department store auctions off the last of a popular toy and gives the proceeds to a worthy charity, increased prices are viewed as fair. Price increases associated with philanthropic motives are more readily accepted (Campbell 1999).

Kahneman et al. argued that perceptions of fair prices could be described by the principle of dual entitlement. After an exchange has occurred, reference transactions are established. The customer feels entitled to a reference price and feels the firm is entitled to a reference profit. If firms have higher costs, they can maintain reference profits by raising prices. But if firms raise prices in response to excess demand or a shortage of supply, they are acting unfairly. Reference profits are higher at the consumers' expense. The dual entitlement principle has been supported in both surveys and experiments with financial incentives (Kachelmeier, Limberg et al. 1991; Frey and Pommerehne 1993; Franciosi, Kugal et al. 1995).

In 1999, the Coca-Cola Corporation violated the dual entitlement principle when they experimented with a vending machine that changed the price of a Coke based on the weather. Prices were higher on hotter days and lower on colder days. With this strategy, Coca Cola planned to increase profits in the absence of higher costs. One can imagine the

company's logic: on a hot day people place greater value on a cold drink, so why don't we charge more? Feeling duly exploited, consumers reacted angrily. The Coca-Cola Corporation, surprised by the backlash, issued a press release saying there was a misunderstanding. They had no intention of using the vending machines either now or in the future.

Framing Effects

A well-established finding that pertains to fairness is called a framing effect (Kahneman & Tversky, 1982). Framing effects are changes in preferences due to a shift in the reference point (Kahneman, Knetsch et al. 1986). They exert powerful effects on consumer choice. Johnson, Hershey, Meszaros, and Kunreuther (1993) described a framing effect in the insurance industry. In 1988, the standard auto policy in New Jersey did not allow drivers the right to sue for pain and suffering from minor injuries, although they could purchase the right with a higher-priced policy. Only 20% of New Jersey drivers bought the more expensive policy. In 1990, the standard auto policy in Pennsylvania included the right to sue, and 75% of Pennsylvania drivers purchased it. Johnson, et al. (1993) estimated that Pennsylvanians spent \$200 million more on auto insurance than they would have spent if the default had been the cheaper option.

Framing effects can also influence the perceived fairness of prices. Kimes and Wirtz (2003) examined framing effects in the golfing industry. Most golfers know that early weekend tee times are in greatest demand. Kimes and Wirtz (2003) showed that two identical pricing schemes produced different perceptions of fairness. Consumers believe it is fair if a golf course charges the regular price for early tee times and offers a 20%

discount for later times. However, consumers believe it is unfair if a golf course adds a 20% premium to the price of early tee times and charges the regular price for later times.

Framing effects also occur in the airline industry. Northwest Airlines was one of the first airlines to charge different prices for the same ticket depending on where consumers purchased the ticket. Prices were \$10 higher at the airport than they were online. The headline of a newspaper article covering the story read, "Why Fly? Get Charged \$10 Just to Show Up!" Northwest executives pointed out that JetBlue had the same pricing structure. JetBlue executives replied by saying that Northwest was wrong. JetBlue charged regular prices for tickets bought at the airport, but gave customers a \$10 discount if they purchased tickets electronically.

Perhaps Coca Cola should have considered framing effects when they began experimenting with temperature-sensitive vending machines. If the machines had charged regular prices on hotter days and offered discounts on colder days, customers might have been less angry, less outraged, and possibly even willing to go along with the new machines.

Another important use of framing effects involves opportunity costs versus out-of-pocket costs. People often underweight opportunity costs relative to out-of-pocket costs (Thaler 1985). This tendency has implications for fairness. Most firms refer to price decreases as "discounts" or "sales" rather than reductions in list price. Why? The cancellation of a discount or the end of a sale is perceived as more fair and acceptable than an outright price increase (Lieberman, Idson et al. 2005). Consumers will be less upset and less likely to resist the change.

The distinction between opportunity costs and out-of-pocket costs also applies when firms become more efficient. Kahneman et al (1986) showed that, when firms reduce their costs, consumers believe it is fair for them to maintain their prices. Firms can increase reference profits in the absence of higher costs with no damage to their reputations. The increased efficiency gives firms the “right” to increased profits. Again, the absence of a price decrease is less painful than the presence of a price increase. What is out of sight is much easier to put out of mind. Consumers are less sensitive to information that is not presented and more sensitive to information that is presented, even when the available information is of limited diagnostic value (Sanbonmatsu, Kardes, Houghton, Ho, & Posavac, 2003).

Variable vs. Fixed Pricing

Much of the previous work on fairness has focused on markets with fixed prices of goods or services. Prices generally remain constant with the amount purchased, the timing of purchase, or the consumer who makes the purchase. Reference prices and reference profits are fairly stable, and perceptions of fair prices can be evaluated relative to these reference points.

In contrast, some markets have prices that vary on a monthly, weekly, or even daily basis. It is hard to apply the dual entitlement principle to these markets because both reference prices and reference profits are distributions rather than fixed points. Both sides of the exchange are more fluid, so a sense of entitlement is less likely to develop.

This more fluid pricing structure has a variety of names, including price discrimination, dynamic pricing, and revenue management. Hereafter, we will refer to it as variable pricing. Variable pricing uses technology and information to differentiate

among consumers and charge each what the market will bear. The trick for firms is to discover the maximum amounts that consumers are willing to pay and ensure that they pay those amounts.

There are two major types of variable pricing. With the first type, firms charge consumers different prices for different units of a good or service. We refer to this practice as variable unit pricing. With the second type, firms charge different consumers different prices for similar units. We call this method of pricing variable consumer pricing. Variable consumer pricing is done with groups of consumers as well as individuals. Figure 1 presents a schema. We now explore perceptions of fairness when reference points vary.

Insert Figure 1 about here

To examine fairness with variable reference points, we asked 140 undergraduates at the University of California, Berkeley to rate the fairness of fourteen different scenarios. Respondents indicated whether the parties involved would find the situation to be "Fair", "Unfair", or "Neither". In situations where participants responded with "Neither", we assumed that the concept of fairness did not apply, and we removed those responses from the analyses.¹

Variable Unit Pricing. Prices that vary per unit are those that differ as function the time of purchase or the quantity purchased. When time is the discriminating variable, prices depend on how far in advance the good or service was purchased. For example, lower-priced rental cars are often available to those who make early reservations. When

¹ Out of the 1,960 questions answered by participants, 274 were rated "Neither". For these consumers, fairness seems to be a salient transaction attribute.

quantity is the discriminating variable, prices vary according to the amount purchased.

Larger quantities are typically sold at lower unit prices.

We tested the perceived fairness of variable unit pricing with quantity discounts using the following question:

Two neighbors, Mike and Jordan, are landscaping their backyards. Both need bricks. Mike needs 100 bricks and Jordan needs 500 bricks. When they arrive at the building supply store, they learn that the more bricks one purchases, the better the deal one can get. Mike pays \$2 more per brick than Jordan pays.

The majority of participants thought that both Mike and Jordan would view the situation as fair. Most respondents (63%) said that Mike, who paid more per brick, would perceive the pricing as fair, and virtually all respondents (92%) thought Jordan would view it as fair ($\chi^2(1)=7.7$, $N=115$ for Mike and $\chi^2(1)=92.4$, $N = 131$ for Jordan).

Airlines regularly use variable unit prices that differ with the timing of purchase. For many flights, consumers who book their tickets well in advance of the flight (e.g., vacationers) tend to pay less than those who book their tickets closer to the day of the flight (e.g., business executives) (Smith, Leimkuhler et al. 1992). There are several reasons for the general acceptance of this pricing scheme. First, it is a well-established industry norm. Second, on any given day, customers can choose whether or not to participate. Third, those who purchase early tickets usually accept restrictions on their tickets that reduce their value. Such tickets might not be refundable or costly to change. Those who purchase their tickets later often pay more for them in order to get the flexibility to change or cancel tickets at the last minute.²

² This pricing scheme has the somewhat awkward, albeit common, structure that frequent customers are charged more than infrequent customers. We will discuss that aspect of fairness shortly.

The goal of most airlines is to sell enough advance tickets to ensure that seats are filled, while at the same time, keep enough seats available to serve the latecomers who are willing to pay full fare. Two things can go wrong. First, the airline may sell too many early restricted tickets and not have enough seats remaining to accommodate the full-fare passengers. Second, the airline may not sell enough restricted tickets and end up with too many full-fare seats available on the day of the flight. Airplane seats are a perishable good; any seats that are empty when the plane leaves are instantly worth nothing. To address this potential loss, some airlines drop the price of full-fare seats right before a flight when they are unlikely to capitalize on any more high-paying latecomers. These seats are typically the source of web-based deals in which passengers buy on Friday to fly on Saturday.

This pricing strategy has implications for fairness. Passengers could find themselves sitting next to someone who paid significantly less for a ticket, but are eating the same peanuts, watching the same movie, and reaching the same location at the same time. Higher-paying passengers could easily be annoyed. But if it is common knowledge that earlier purchases are better deals and if passengers with lower fares purchased their tickets earlier, consumers may perceive this pricing structure as fair.

To examine people's perceptions of these pricing schemes, we introduced our survey participants to Mr. Thompson and Mr. Stone who meet on a flight from San Francisco to New York. We had four versions of the questionnaire. In all four versions, Mr. Thompson bought an unrestricted ticket one week prior to the flight and paid \$400 more than Mr. Stone. Mr. Stone's bought his ticket either one month prior to the flight or

the day of the flight, and his tickets were either restricted or unrestricted. One scenario read:

Two airline passengers, Mr. Thompson and Mr. Stone, are both flying from San Francisco to New York City. They begin chatting and in the course of the conversation, they compare the prices they paid and when they purchased their tickets. Mr. Thompson bought his unrestricted ticket 1 week ago and paid \$400 more than Mr. Stone who bought his restricted ticket 1 month ago.

Most participants (79%) thought Mr. Stone would perceive the situation as fair, and there was no effect of timing or restrictions. Reactions were more nuanced for Mr. Thompson. Logit analyses revealed that Mr. Thompson's perceptions depended on the timing of Mr. Stone's purchase, but not the restrictions on Mr Stone's ticket ($p=.05$).

When Mr. Stone purchased his ticket one month in advance, approximately half (54%) of participants thought Mr. Thompson would view the situation as unfair. But when Mr. Stone purchased his ticket the morning of the flight, there was a strong consensus. Virtually all respondents (84%) thought he would find the situation unfair ($\chi^2(1) = 24.9, N=54$).

These questions show that variable unit pricing may be perceived as fair (e.g. bricks) or unfair (e.g. airlines). The brick question and the airlines questions differ in a host of ways. In the building supply industry, quantity discounts are a regular occurrence. In the airline industry, most passengers are aware that they can get lower fares with earlier purchases, but fewer are aware of the lower fares available at the last minute. Not only do fewer consumers know about this practice, it is also less common in the industry. Consistency of the variable pricing methods with industry norms may be at least one reason for the difference in the perceived fairness of the brick question versus the airline questions.

Another reason for the differences in perceptions may be the inconsistency in the firm's pricing strategies. With building supplies, there is a perfect correlation between amount purchased and price. Furthermore, two consumers who purchase the same number of bricks will be charged the same amount. But in the airline industry, the correlation between time of purchase and price is much lower and perhaps even nonexistent. Prices change all the time. Consumers might be more willing to accept variable pricing if prices were more predictable. If consumers knew they could get discounts for early purchases or discounts for last minute purchases, such prices might be more acceptable. But prices are both uncertain and contradictory. There are multiple rules that govern the actual prices at any given moment. Consumers simply don't know when to purchase their tickets to get the best deals, and the uncertainty may foster perceptions of unfairness. Being reminded of the inequality by sitting next to someone who got a better deal makes it even worse.

Variable Consumer Pricing. With variable consumer pricing, firms sell the same good or service to different consumers at different prices. The firm identifies differences in price sensitivity among consumers (either groups or individuals) and charges prices accordingly. Some firms segment consumers into groups based on an easily discernable trait (Carroll and Grimes 1995). For example, many firms charge different prices based on age. Children and senior citizens often get discounts at the movies, on the subways, or in the amusement parks. Furthermore, such practices are readily accepted. Many people believe seniors and children are deserving of discounts. Another discriminating variable is gender. Some dry cleaners charge more to clean women's clothes than men's clothes. Similarly, many hair salons charge women more than men to cut and style their hair.

We explored some instances of variable consumer pricing among groups based on age. One question read:

Carrie and her friends go to the movies. Carrie, who is 25 years old, pays \$10 for her ticket. The man in front of her in line is 65 years old. He gets a senior discount and pays \$6.

Most of the 61 participants (63%) thought that Carrie would perceive the situation as fair ($\chi^2(1)=24.9$, $N = 115$), and even more participants (92%) thought her grandfather perceived it as fair ($\chi^2(1)=90.7$). $N=131$).

In the dry cleaning industry, the price of cleaning is based on the garment and what it costs to give it back to the consumer in a desired state. If women's clothes have more pleats, ruffles, or lace than men's clothes, if women expect better results than men, or if it costs more to press women's clothing than men's clothing because women's clothes don't fit the automatic press originally designed for men's clothes, dry cleaners are permitted to charge different prices based on gender.

We asked respondents what they thought about gender-based dry cleaning prices. Our question read:

When Mrs. Simmon takes her blouse and her husband's dress shirt to the dry cleaners, she is told that prices differ for men's and women's shirts. Her blouse will cost \$9, and her husband's dress shirt will cost \$5.

Most (70%) believed Mrs. Simmon would perceive the situation as unfair ($\chi^2(1)=9.6$, $N=60$). Perhaps these views were based on uncertainty about whether Mrs. Simmon's blouse would truly take more work than Mr. Simmon's dress shirt. Alternatively, perceptions of unfairness may have been based on a general dislike for variable consumer pricing with gender as the discriminating variable.

Variable consumer pricing is widely accepted in today's marketplace, despite the fact that it is more likely than other forms of variable pricing to violate federal anti-discrimination laws. The two scenarios above show that variable consumer prices evoke a range of reactions. The senior citizen question and the dry cleaning question differ in many ways. Many people are familiar with senior discounts, and they may view this pricing method as a charitable gesture. People are generally less familiar with gender-based pricing in the dry cleaning industry, and they may view it as a form of sex discrimination.

Another important difference between the senior citizen question and the dry cleaning question is that prices were described as senior discounts rather than middle-aged premiums. When the higher price is the reference price, "discounts" may be more acceptable. Do perceptions of fairness change with the dry cleaning problem if men's prices are described as discounts? In another version of the question, we told respondents:

When Mrs. Simmon takes her blouse and her husband's dress shirt to the dry cleaners, she is told that prices differ for men's and women's shirts. Her blouse will cost the regular price of \$9. With the \$4 discount for men's shirts, Mr. Simmon's dress shirt will cost \$5.

Even when the higher price was the reference price and the lower price was described as a "discount", prices were still viewed as unfair. Roughly the same percentage of participants (71%) thought Mrs. Simmon would perceive the pricing as unfair ($\chi^2(1)=4.9$, $N=28$).

Firms apply variable consumer pricing to individuals as well as groups. Since individual consumers will pay different amounts for the same good or service, firms segment consumers into groups of size one and charge prices accordingly. This approach

requires the firm to know each customer's demand function or at least have an accurate notion of the customer's tastes and spending habits. Variable consumer pricing at the individual level has been using in the airline industry with frequent flyer cards and in the supermarket industry with loyalty cards. But until recently, it has not been feasible for most industries (Carroll and Grimes 1995). Now with the Internet, all of that has changed (Baker, Marn et al. 2001; Kambil, Wilson III et al. 2002).

Behavioral targeting is the term used to describe how firms base marketing mix decisions based on the information that is collected about consumers. Stores can follow the movements of visitors online, keep track of what products they view, and keep records of their online purchases. Some firms secretly collect data about consumers' web activity and sell it to third-party marketing firms. Stores can supplement their databases with additional consumer information and score individuals based on characteristics, such as preferences for products. Based on this information, they offer different prices to different buyers for the same good or service.

It is legal for online stores to charge different prices to different consumers for the same good at the same time of the day. Some retailers now send out catalogs that contain the same items at different prices to different individuals. CDNow sends a website address to certain individuals so they can take advantage of lower prices. Amazon also charges different prices to different consumers for the same book, CD, or DVD.

We asked respondents how they perceived variable consumer pricing at the individual level. One question stated:

Susan loves music and buys a CD online from Amazon for \$21.99. The next day, she calls her friend, Marta, who also loves music, to tell her about the CD. Marta says that she already knows about the CD, and coincidentally, bought it from Amazon the same day as Susan bought hers. Marta paid \$14.67.

Virtually everyone (89%, $\chi^2(1)=80.3$, $N=132$) believed that Susan would perceive the situation as unfair. Perhaps more interesting is the fact that, even though Marta was the beneficiary of the price difference, participants believed that Marta would also find the situation unfair (73%, $\chi^2(1)=22.8$, $N=108$).

Do people think variable consumer pricing among individuals is more acceptable if the individuals involved are aware that stores engage in such practices? To answer this question, we presented respondents with a similar scenario in which the characters knew about variable consumer pricing at the individual level. The question said:

Kirstin and Julie spend a lot of time on the Internet. They know that companies keep track of their activities on websites and try to forecast individual price sensitivities. Both women go to the online store, Land's End. They buy the same cashmere sweater on the same day. The price offered to Kirstin is \$99, while the price offered to Julie is \$68.

Again, almost everyone (94%) thought Kirstin would perceive the situation as unfair, and the majority (69%) thought Julie would find it unfair ($\chi^2(1)=100.7$, $N=130$ for Kirstin and $\chi^2(1)=16.0$, $N=111$ for Julie). Apparently, even when consumers are aware of behavioral targeting, they believe such practices are unfair.

Capturing Perceived Fairness

There is no question that variable unit pricing and variable consumer pricing could, in principle, increase profits. The precise conditions under which these pricing methods are optimal are topics of much debate (e.g. Acquisti and Varian 2003). But if these strategies reduce customer loyalty and patronage because consumers think they are unfair, firms might be well advised to avoid them. Consumers might “vote with their feet” and shop elsewhere, take actions to ensure that firms have no data on them (such as

removing cookies), or voice their outrage in the form of protests, demonstrations, or litigation (Streifeld, 2001).

Our survey results tell us that, in some cases, variable unit pricing is perceived as fair (i.e. bricks), but in others, it is perceived as unfair (i.e. airline tickets). Similarly, in some cases, variable consumer pricing among groups is viewed as fair (i.e. senior citizens) and in others, it is unfair (i.e. dry cleaning). Among individuals, variable consumer pricing was perceived as unfair (i.e. CDs), regardless of whether the consumers are aware of such practices (i.e. cashmere sweater).

What are the underlying characteristics of variable prices that make one situation seem fair and another seem unfair? Four factors contribute to perceptions of fairness—industry norms, justification for price differences, consistency of prices, and transparency of the price structure. We now discuss each in turn.

Industry Norms. Industry norms go a long way toward making variable pricing seem fair. Lower fares for early purchases were perceived as fairer than lower fares for last minute purchases. One reason may have been because lower fares with early purchases are more common occurrences. Similarly, discounts for seniors were viewed as more fair than discounts for men's clothing, perhaps because senior discounts are the norm.

Many norms appear rather arbitrary. For example, it is unfair for restaurants to charge higher prices for seats with better views, but it is fine for a baseball stadium to do exactly that. New norms can be hard to establish. Changes in pricing often take time before they are accepted. Minnesota has recently started a program in which drivers can pay extra to drive in the carpool lane. Prices vary as a function of congestion. Drivers

have accepted this variable pricing during rush hours but have loudly objected to the scheme during non-rush hours. Arbitrary or not, certain reference points become norms, even when those reference points vary.

Justification for Price Differences. Consumers will accept price differences when those differences seem reasonable and justified. Random price discrimination, for example, appears unacceptable to many people. In 2000, Amazon sold a set of DVDs at discounts of either 30% or 40%. Consumers discovered in an online chat room that Amazon had offered different prices to different customers. Amazon replied by telling consumers that the prices were determined on a random basis. But that did little to sooth their outrage. Amazon sent out additional 10% discounts to those who had been given the smaller discounts. One reporter said, “Imagine the outcry had Amazon actually raised them [the prices]” (Heun 2001).

What if Amazon had awarded discounts based on the frequency of past purchases? If Amazon had given frequent customers an advantage over infrequent customers, would consumers view it as fair? What groups, besides seniors, can receive discounts with widespread acceptance? We gave our respondents the following scenario:

For certain products, Amazon uses a customer’s previous buying and shopping behavior to set prices. Amazon determines whether to discount the price of a product by either 30% or 40%. Specifically, they give a 40% discount to [frequent/infrequent] customers.

Virtually all respondents (94%) thought it was fair to give discounts to frequent customers ($\chi^2(1)=25.6$, $N=33$), but most rejected the idea when applied to infrequent customers. The majority (72%) viewed such discounts as unfair ($\chi^2(1)=4.8$, $N=25$).

Although it is commonplace, discounts given to entice new customers to make purchases,

at the expense of the loyal customers, is not a strategy that firms should adopt without careful consideration of the consequences.

In some cases, variable pricing based on gender is perceived as fair if the explanation seems reasonable. We examined explanations with our dry cleaning question and asked participants:

Dry cleaners charge different amounts for different types of clothing. Women's clothes are often fancier with more pleats, ruffles, or sensitive fabric. These items require more time to clean and press. Mrs. Simmon takes her blouse and her husband's dress shirt to the local cleaners. Mr. Simmon's dress shirt costs \$5 to clean, and Mrs. Simmon's blouse costs \$8.

The majority of participants (81%) thought Mrs. Simmon's would view the situation as fair ($\chi^2(1)=24.9$, $N=52$). However, without apparent justification, the same pricing is unacceptable. Another question read:

Dry cleaners charge different amounts for different types of clothing. Women are often willing to pay more than men. Mrs. Simmon takes her blouse and her husband's dress shirt to the local cleaners. Mr. Simmon's dress shirt costs \$5 to clean, and Mrs. Simmon's blouse costs \$8.

This time, the majority of respondents (59%) thought Mrs. Simmon would perceive the pricing as unfair. There is no reasonable basis for price differences in the mind of the consumer.

Some researchers distinguish between justifications and excuses (Scott and Lyman 1968). Justifications are explanations in which the decision maker admits fault for the decision, but denies that the decision was inappropriate by appealing to a higher order concern that makes the decision seem morally defensible. Excuses are explanations in which the decision maker does not accept fault for the action, but admits that the decision was inappropriate. Blame is shifted to external causes that made the action unavoidable.

In a meta-analysis of explanations, Shaw, Wild et al. (2003) found that excuses were generally perceived as more fair than justifications. An excuse for a price increase might be that price increases are bad, but because of the higher costs of supplies and labor, such increases were inevitable. A justification for a price increase might be that the higher price might seem bad to customers, but actually, higher prices allow firms to maintain their competitive edge and attract the best possible employees. Justifications may invite customers to consider alternative goals, such as higher profits without higher costs.

Consistency of Prices. Although most consumers, if given a choice, would probably prefer fixed pricing to variable pricing, they eventually adapt to variable pricing if no other pricing schemes are available. Some indirect evidence for the claim that people would prefer fixed prices is the popularity of Southwest and JetBlue airlines. Not only do these companies have lower prices, they also have more consistent prices. These airlines are also doing extremely well, while traditional airline companies are losing profits. The predictability of price differences provides assurances to customers that they are getting the best deal now and in the future.

Transparency of Price Structure. Another critical factor in perceptions of fairness is transparency in the rules that govern price differences. Customers want transparency to check whether price differences actually follow a given pricing structure. Transparency can increase perceptions of fairness, especially if it gives customers some control over the price they pay or is the industry norm. But it can also decrease perceptions of fairness if it makes consumers aware of unjustified reasons for price differences or inconsistency of prices. When customers learned that Amazon was using

random assignment of prices to customers, it led to customer outrage. Transparency increases the perceived fairness of a plan that, on the face of it, is perceived as fair and decreases the perceived fairness of a plan that is objectionable from the onset.

To what extent was there transparency in our survey questions? In the brick question, Mike and Jordan may not have known before they got to the store that they would pay different prices for the same brick if they purchased different amounts. However, most consumers are familiar with this type of pricing and understand the firm's incentives to encourage consumption. The reason for price differences was quite explicit.

In the airlines industry, consumers know they can often get better deals if they buy in advance, but such deals are, by no means, guaranteed. In fact, ticket prices may even decrease as the date of travel approaches, and many airlines drop their prices dramatically right before the flight. The lack of transparency across days prior to the flight may contribute to the mixed reactions and perceived unfairness in our airline questions.

Some airlines try to keep pricing rules hidden from their customers. But if customers find out, they view the attempted secrecy as yet another layer of unfairness (Kimes 2002). The irony of the "we've got a secret" approach is that transparent rules might well generate the same amount of revenue with less consumer resistance. For example, an airline could differentiate the experience of the higher-paying passenger from that of the lower-paying passenger by giving the higher-paying passenger a seat with more leg room, free headphones, or complementary food and drinks. Another possibility, and one that is commonly used, is to place significant restrictions on lower fares. A passenger who paid more for his or her ticket might view the price as more fair if

the higher price permitted him or her to make last-minute changes in reservations at no additional cost.

In our variable consumer pricing questions, there were also different degrees of transparency. Most people know and accept the fact that seniors often get discounts. Furthermore, prices are clearly posted at most movie theaters, so consumers know before the exchange that prices vary with age. Finally, the clever selection of the reference price as the higher, middle-aged price goes even further in gaining public acceptance.

Price discrimination in the dry cleaning industry is more subjective and depends on the difficulty of cleaning (e.g., whether a particular garment has stains), as well as type of garment to be cleaned. Although there are exceptions, most dry cleaners do not post signs that give precise cost structures. This lack of transparency may contribute to perceptions of unfairness.

The Way of the Future

We believe that variable consumer pricing at the individual level will eventually become the norm. With access to vast amounts of information on and off the Internet, firms will continue to develop methods to estimate individual price sensitivities and cross their fingers that other firms will do the same. As this method becomes more acceptable, perceived fairness will depend on justification of price differences, consistency of prices, and transparency of the pricing structure. A study by Choi and Mattila (2004) examined peoples' reactions to hotels that quoted different room rates to different customers for comparable rooms. When customers are offered higher rates than those offered to others on the same occasion, they viewed the prices as unfair. Firms are increasing profits without higher costs. However, customers were not resistant to all price increases. They

accept the fact that hotels change their rates over time. In fact, when the same customers are given higher room rates at a later date, they usually accept the price increase and attribute it to higher costs (Choi and Mattila, 2004).

Justification for price differences is a serious problem. In a national telephone survey, Turow, Feldman, and Meltzer (2005) found that 87% disagree with the statement, "It is OK if an online store I use charges different people different prices for the same products during the same hour." Even more (91%) disapprove of this practice in the supermarkets. Interestingly, most internet-using U.S. adults (80%) know that it is legal for firms to follow their behavior online, but they do not know that it is legal for online and offline stores to charge different people different prices (62%).

Variable consumer pricing at the individual level, at least at this point in time, is not publicly announced. In our survey, respondents thought it was unfair in the CD question and in the cashmere sweater question that specified consumer awareness. If firms made these pricing practices transparent, perceptions of fairness might drop even lower. If consumers with higher incomes were told explicitly that they were charged more than consumers with lower incomes for books or CDs, the higher-paying customers would likely become uncooperative to say the least.

Consumers might also feel indignation about the collection of their personal information and/or the attempted secrecy of the practice. Not all uses of personal information are rejected. For example, Amazon uses terabytes worth of sales data to make recommendations about books and music its customers may like. We asked our respondents whether this practice was fair using the following question:

Amazon uses their entire customer purchase database to make recommendations about what products a consumer might like.

A large proportion (77%) of the 107 respondents thought this practice was fair ($\chi^2(1)=31.2$). But firms also use individual information to determine a consumer's price sensitivity and set future prices for that consumer. Responses to the CD question and the cashmere sweater question tell us that these situations are perceived as unfair.

For firms to be given the benefit of the doubt when it comes to a price increase, they need to establish good reputations, and trust is a key component of a firm's reputation. When consumers visit a Web site, they trust that the descriptions of products and services are accurate. When they order and pay for a product, they trust the product will be delivered on time or that they can return something if they choose to do so. Violations of this trust mean that consumers will assume the worst whenever there is uncertainty about motives, prices, or policies.

Urban, Sultan and Qualls (2000) found that consumers are more likely to trust online stores that provide complete, accurate, and unbiased information not only about their own products, but also about the competition. Consumers are also more likely to trust online stores that make searching, comparing, and purchasing easy. Finally, consumers are more likely to trust online stores that protect their privacy by keeping their personal data private. If security is breached, consumers expect online stores to inform them and be as helpful as possible if theft occurs.

Web sites that build trust often have customer communities that provide user feedback. eBay facilitates the exchange of billions of dollars worth of goods on an annual basis. To establish trust, eBay tracks and publishes the reputations of buyers and sellers on the basis of feedback from each transaction. In a controlled experiment of eBay

transactions, buyers bid an average of 7.6% more for goods listed by repeat sellers who had good reputations (Resnick, Zeckhauser et al. 2004).

Some argue that trust depends on benevolence and competence (Ganesan and Hess 1997; Sirdeshmukh, Singh et al. 2002). Benevolence is the feeling that the company will put the interests of the consumer ahead of profits. Competence is the belief that the company will reliably deliver promised goods or services. Fairness facilitates exchange, and trust, which depends on benevolence and competence, facilitates long-term relationships.

Conclusion

Past research has found that price increases are generally perceived as fair if firms have increased costs (Kahneman, Knetsch et al. 1986) or if firms use the money for philanthropic purposes (Campbell 1999). Price increases are unfair if firms exploit excess demand or shortage of supply (Kahneman, Knetsch et al. 1986). The dual entitlement principle captures these intuitions. Firms are entitled to a reference profit, and consumers are entitled to a reference price. With increased costs, a firm's profits will fall below the reference profits unless they raise prices. Price increases designed to cover these costs are viewed as fair. But price increases that purely exploit excess demand or monopoly power are viewed as unfair.

Perceptions of fairness depend on framing effects. Reference points establish the norm from which discounts and premiums are evaluated. Additional consumer costs can be framed as opportunity costs or out-of-pocket costs, and people are noticeably less sensitive to foregone costs than to costs they directly experience. This focus of attention helps explain why price decreases are usually called discounts or sales rather than

reductions in list price. This tendency also helps explain why people accept variable consumer pricing among “deserving” groups; senior discounts are more palatable than middle-age surcharges. Finally, this result may also help explain the fact that consumers do not expect firms to decrease their prices when costs are reduced. The absence of a price decrease is less salient and annoying than the presence of a price increase.

Much of the past psychological work on perceptions of fair pricing has focused on fixed reference points—both prices and profits. These days, variable pricing methods are becoming more common. There are two general types: variable unit pricing and variable consumer pricing. With variable unit pricing, firms charge different prices for different units. With variable consumer pricing, firms charge different prices to different consumers for the same units. Variable pricing means that dual entitlement no longer applies. Consumers no longer are entitled to a reference price, and firms are no longer entitled to reference profits.

When are variable pricing structures perceived as fair? We believe that four factors are important predictors of the perceived fairness of variable pricing: 1) the extent to which variable pricing is the industry norm, 2) the apparent reasonableness of the price differences, 3) the consistency or predictability of prices over time, and 4) the degree to which price structures are made transparent.

Variable unit pricing and variable consumer pricing are more common in some industries than others. For example, variable unit pricing is often found in the clothing industry. A consumer who purchases 10 pairs of socks is likely to get a better price per pair than a consumer who buys 1 pair of socks. Variable unit pricing is also widespread in business-to-business exchanges.

But just because variable pricing is an industry norm doesn't guarantee its acceptance. For example, variable unit pricing is widely used in the airline, hotel, and rental car industries. In these cases, travelers who book their reservations earlier tend to get lower prices. But many people who imagine themselves seated beside someone who paid \$400 less for their ticket are not necessarily pleased, especially if the cheaper ticket was purchased on the day of the flight.

Some forms of variable consumer pricing at the group level are also fairly widespread. Most people accept junior and senior discounts at the movies, on the airlines, or in the amusement parks. This type of pricing is more acceptable if there is a good reason for the price difference, and higher price is treated as the reference price. The "deserving" group (e.g., children or senior citizens) receives the "discount".

Variable consumer pricing at the individual level occurs in the airlines and in the supermarkets with the use of frequent flyer cards and loyalty cards, respectively. With the Internet, it has become feasible to many more online industries without "cards" of any type. However, for most consumers, it is by no means the norm. In fact, many consumers are completely unaware of the current practices or the current trends in that direction.

Reasons for price differences are also important. Customers may accept different prices for dry cleaning men's and women's shirts if they feel those prices are due to increased labor. However, if they believe the price differences occur without increased cost for the firm, they view such differences as arbitrary and unfair. Predictability of price differences is also important. Perceptions of the airline industry suggest that people would prefer greater consistency, even if prices fluctuate.

Finally, transparency is also important. When variable prices are industry norms, consumers are more accepting of the practice when both the rules governing price differences and the reasons for those price differences are transparent and clear. That way, consumers may have some control over what price they pay. In addition, consumers don't trust firms that try to keep the rules governing price differences hidden. This lack of transparency adds yet another layer of unfairness on top of an already unfair situation.

Transparency is intimately tied to trust. Consumers are more accepting of variable pricing when they trust the firm and have confidence that the firm will give them accurate and complete information about goods and services, as well as meet their product expectations. Transparency can increase or decrease perceptions of fairness. When variable pricing is not the industry norm, transparency can make things even worse. For example, variable consumer pricing at the individual level is not only perceived as unusual, consumers who learn about the practice often feel betrayed. Firms that use such pricing strategies appear to be using consumers' data "against" them. Firms that try to cover their tracks, but end up getting caught, are perceived as even worse. It will take some big changes in the marketplace before variable consumer pricing among individuals is accepted. In the meantime, consumers are likely to put up a good fight.

The rise of the Internet has given consumers more power. It has increased their ability to collect and compare information about products, prices, and firms. But at the same time that consumers are more powerful, firms are more powerful. Firms have increased capability to collect consumer information, use it, and sell it to other firms. What we have is an information arms race, and we hope that both firms and consumers are winners.

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Figure 1.

