3 UNMINDFUL PROCESSING: THE ROLE OF ‘PLACEBIC’ INFORMATION ON PERCEPTION OF PRICE UNFAIRNESS

Price increases may be perceived as unfair by customers and such perceptions have negative consequences for the seller more so when such price increases are not accompanied with explanations. We show in this chapter consumers (1) are tolerant of low price increases, (2) under certain conditions, consider favorably even Placebic justifications (explanations, devoid of any quality) from a seller for a price increase and (3) are subject to pseudo-discounts or framing effects.

3.1 Introduction

According to attribution theory, people make causal inferences about observed actions and these influence their responses. When price is increased\(^{26}\), consumers search for causal explanations, since the event is surprising and/or negative. Extant literature posits that such price increases may be considered unfair, though such perceptions may be attenuated or accentuated by factors such as firm’s reputation or inferred motive respectively (Campbell, 1999a and 1999b). Literature does not delve into impact of differing levels of price increase and the quality of the justifications. Using the concept of Weber’s Law, adaptation level theory and assimilation contrast theory we show that, under certain conditions, it is not necessary for any level of price increase to lead to PPU; for instance, low levels of price increases. Further, the information provided by the seller, for instance informing the consumer about rise of input costs (e.g., Urbany, Madden and Dickson, 1989), is considered by the consumers as reasons and consequent information processing influence perceptions about price fairness and consequent behavior. Such mindful action is assumed, in past literature, to be an outcome of conscious attention to relevant information. Using the concepts of heuristics and cognitive scripts, we show in this chapter that such processing, under certain conditions, may not be so mindful at all. Lastly, we combine framing effects of providing pseudo-discounts, such as when a seller

\(^{26}\) Of course, it is the same case when price is decreased too. However, the effect of price decrease is not a subject of this study.
increasing prices and offsetting it with a partial discount, attenuate perception of price and PPU due to price increases and consequent purchase intentions.

3.2 Conceptual Framework

We demonstrate the effects of Low vs. High levels of price increase cues, None vs. Placebic vs. Relevant types of justification cues and No-discount vs. Pseudo-Discount framed cues on three dependent variables Price Perceptions, PPF and Purchase Intentions. We further examine the effects of (1) Price Perceptions on PPU/F and Purchase Intentions and (2) PPU/F on Purchase Intentions.

Any price increase is undesirable and perhaps rightly so. Price-fairness literature elicits PPU/F from respondents by manipulating price change. It provides a base price and a changed price enmeshed in a vignette. The average percentage of price increase manipulated in some of the major studies for elicitation of PPU is 23% (Median = 20%; Range 15% to 100%). For e.g., a $5 or 33% increase on a base of $15 for a snow shovel (KKT, 1986a) or a 25% increase on a base price of $500 for a rug (Campbell, 2007).

While the levels of price increase or difference itself may contribute to a PPU, the vignettes in such studies provide additionally a ‘moral imperative’ twist that is hard to consider as fair. For instance, consider the vignette posed by KKT (1986a): “A hardware store has been selling snow shovels for $15. The morning after a large snowstorm, the store raises the price to $20” (p 729). Many respondents found the price increase unfair. The vignette may elicit unfairness perceptions because of two aspects: one is the extent of price increase from $15 to $20 and the other is the information ‘the morning after snowstorm’ that clearly portends misuse of market power by the seller. It is unclear whether the PPU is due to the extent of price increase or the abuse of market power; apparently, there is an interaction effect. The effect of former alone, i.e. without the confounding effect of information to consumer about abuse of market power, is of greater interest to us. Consumers face many such occasions of price increase, especially in developing countries facing price inflation.

The second matter of interest is the question whether any magnitude of price increase would be considered unfair? Consumers face differing magnitudes of price increase;
some low and others high. Principle of Dual Entitlement (DE) (KKT, 1986a) posits that a seller may not raise the price with a view to increase his profits; however, when there is a cost justification, the seller may increase the price to protect profits. However, the DE principle is silent about differing levels of PPU due to differing magnitudes of price increases.

For instance, we reformulate the above vignette (KKT, 1986a) in two different scenarios each with two different magnitudes (one low and the other high) of price increase and without the ‘moral imperative’ twist:

- Scenario 1: “A hardware store has been selling snow shovels for $15. One morning the store raises the price to $16.”

- Scenario 2: “A hardware store has been selling snow shovels for $15. One morning the store raises the price to $20.”

What would be the price perception, PPU and purchase intentions? We propose to investigate this issue. For the sake of clarity the following terms with meanings would be used in this chapter. The first encountered price is the base price ($15 in the vignettes). The second encountered price is the increased price ($16 or $20 in scenario one and two respectively).

3.2.1 Magnitude of Price Increase and Price Perceptions

Price Perception is the subjective evaluations of a consumer about the objective price information (Monroe and Lee, 1999). For instance, a pen objectively priced at Rs. 5 may be subjectively evaluated to be ‘cheap / expensive,’ or ‘acceptable / unacceptable.’

There are several reasons why the second encountered price with an increase of low magnitude may be perceived by consumers as similar to first encountered or base price. Further, when compared to a second encountered price with an increase of low magnitude, the second encountered price with an increase of high magnitude will entail higher price perceptions. We use Weber’s Law (absolute threshold and differential threshold), adaptation level theory and assimilation contrast theory to explain.
Every human sensory process has an upper and lower limit of responsiveness to a stimulus—absolute thresholds that mark the transition between response and no response. Within the stimulus set in which responsiveness occurs, the differential threshold is the minimum amount of change in a stimulus necessary to produce “just noticeable difference” or JND. In a context of this study, we are interested in the buyer’s ability to discriminate between two different prices: the first being the base price and the second being the increased price. Therefore, two questions arise: (1) Do buyers have upper and lower price limits? and (2) Given a price change, how do buyers respond? Response, in the context of this study, may be understood as a lowering of Purchase Intent.

In a pricing situation, an absolute threshold may be understood as a range of prices, within which the response of the consumer is the same. Consumers do have acceptable ranges of prices (Gabor and Granger, 1964). Such range may be different for different products (Fouilhe, 1970) and within a product may vary across income and social class of consumers (Sherif, 1963). If the second encountered price is outside the acceptable range, then the responses would differ.

Weber’s Law has often been cited as the basis for inferences about perceived price differences (Kamen and Toman, 1970; Miller, 1962; Webb, 1961; etc.) Weber’s law which suggests that small, equally perceptible increments in a response correspond to proportional increments in the stimulus:

$$\frac{\Delta S}{S} = K$$

where $S$ is the magnitude of the stimulus, $\Delta S$ is the increment in $S$ corresponding to a defined unitary change in response, and $K$ is a constant. In judging differences between two intensities of a stimulus Weber’s law holds only over limited ranges of stimulus intensity. In particular, when stimuli values approach the lower threshold, $K$ may become considerably higher, and it also may increase for high stimuli values; $K$ also varies over different physical stimuli and vary over different products (similarly priced) and over divergent price levels.

27 We just briefly touch upon the concept of absolute threshold, for in the context of price change, it is the concept of differential threshold that is more important.
The fact that a previously encountered price of a product and the current actual price of the same product are different does not imply that consumers will perceive a difference. Applying the concept of differential threshold or just noticeable difference (j.n.d.), in a pricing scenario whether the first and the second encountered prices are perceived to be different or the same depends on the difference between the two prices (Monroe, 1973). A change in intention or behavior may though depend both on the price difference and the motivation to change (Uhl, 1970). Uhl (1970) demonstrated that consumers identified a 5% price deviation correctly 64% of the time and a 15% price deviation 84% of the time; the implication is that larger price changes exceeded the differential threshold of greater number of respondents.

From the preceding discussion, it may be noticed that prices (whether the first encountered or the second encountered price for the same product) were evaluated singly against a range of acceptable prices or against each other. This calls for no comparison with a standard or IRP. Adaptation Level Theory, as applied to price stimuli and consumer context, posits that perceptual judgment of a stimulus depends on the relationship between the physical value of that stimulus and the physical value of the current Adaptation Level; that is price perception depends upon the actual price and the Adaptation Level or IRP28 (Della Bitta and Monroe, 1974). There is a region of indifference about an IRP such that changes in price within this region produce no change in perception (Emery, 1970). Alexis, Haines and Simon (1970) found that “the consumer goes shopping with a ‘target’ price in mind around which there is an acceptable deviation” (p 28). So, if the first and the second encountered prices are within the acceptable deviation of the IRP, then the price change may not produce significant changes in the perception of price, fairness or purchase intention. It may be possible that the IRP is the first encountered price.

According to assimilation-contrast theory (Sherif, 1963), when an observed price is compared to a standard or an IRP, the difference may be insignificant or significant to the consumer. When the difference is insignificant it tends to assimilate toward the standard or the IRP. On the other hand, when the difference is significant then it produces a contrast effect away from the standard.

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28 IRP is elucidated in page 16
Therefore, a price increase of

- low magnitude may evoke a perception that the new price is ‘about the same as earlier prices / not at all very different’, ‘not at all expensive’, ‘very nearly normal price’, ‘the price difference or deviation is negligible / insignificant / very low / marginal,’ and ‘the price is acceptable’,

since, (1) the new price and the base price may fall within the absolute threshold, or (2) the difference between the base price and the new price is below the j.n.d., or (3) the base price and the new price is within the acceptable deviations about the standard price or the IRP, or (4) the magnitude of price difference was so low that it is assimilated with the IRP,

as opposed to a price increase of

- high magnitude that may evoke a perception that the new price is ‘not at all same as earlier prices / very different’, ‘very expensive’, ‘very abnormal price’, ‘the price difference or deviation is noticeable / significant / very high / pronounced,’ and ‘the price is unacceptable’,

since, (1) the new price may fall outside the absolute threshold, or (2) the difference between the base price and the new price is above the j.n.d., or (3) the new price is outside the acceptable deviations about the standard price or the IRP, or (4) the magnitude of price difference was so high that it is contrasted away from the IRP.

\[ H1: \text{ A high price increase (vs. low price increase) will increase Price Perceptions.} \]

### 3.2.2 Magnitude of Price Increase and PPF

As defined in first chapter, PPF is a judgment of whether the outcome is reasonable, just or equitable. It is triggered by a price comparison. Compared is the observed price (or the actual or paid price) with an IRP or another price that is chosen for comparison such as what price other consumers got.

As was explained for Price Perceptions, Weber’s Law (absolute threshold and differential threshold), Adaptation Level Theory and Assimilation Contrast Theory
can also be used to explain the effect of different magnitude of price increases on PPF. The only change is the direction of the effect is opposite; PPF will be lower for a price increase of high magnitude than of low magnitude.

We additionally use principles of Dual Entitlement (KKT, 1986a) and equity theory (Adams, 1965) to explain the effects of different magnitudes of price increase on PPF.

Briefly, principle of Dual Entitlement posits that the consumer is entitled to the reference price and the seller to his reference profits. A seller may not unilaterally increase the price without justification of fall in profits. However, a seller may increase prices to offset additional costs incurred. Therefore, a unilateral price increase by the seller without any plea of profit erosion is likely to be perceived by consumers as unfair. Therefore, regardless of magnitude of price increase, there ought to be a PPU. However, it is not clear from the DE principle whether PPF is a constant or a variable with respect to different magnitudes of price increase. We, therefore, turn to equity theories to resolve this issue.

Equity is best defined as a state of interactive equilibrium which is achieved when the participants in an interaction or common organization are allocated outcomes proportional to their inputs (Shaw and Costanzo, 1982). To explain, buyers form equity or inequity judgments by comparing the ratio of their regular outcomes or benefits they receive (e.g. quality product, utility etc.) in return for regular inputs (e.g. investments in terms of money, time, cognition, loyalty etc.) to the ratio of the regular outcomes or benefits the seller receives (e.g., price, positive word-of-mouth from customer) in return for regular inputs (e.g., providing information, product, being altruistic, branding, etc.). When the ratios are perceived to be similar then a perception of equity prevails or can be said to be in a state of interactive equilibrium. When this proportion is dissimilar, either one of the parties is in a disadvantageous inequality situation and the other in an advantageous inequality situation, both of which may be distressing, more so in the former case. It is important to note that the words ‘regular’ carry the same meaning as that of social norms of allocation of rewards that eventually lead to an evaluation of ‘fairness’.

If a consumer is asked to pay more than what s/he was paying earlier, the consumer will perceive an imbalance in the proportions: the consumer’s inputs increase while
the consumer’s output remaining the same; and the seller’s output increases while the
seller’s input remains the same. That is, while the consumer’s output to input ratio is
diminished, the seller’s output to input ratio is enhanced. This leads to a perception of
disadvantaged inequality for the consumer. More inequitable the outcomes, more
distress it causes (Walster, Walster and Berscheid, 1978). It is only logical that the
perceived monetary sacrifice will be higher for a price increase of higher magnitude
than lower. Therefore, all else remaining same, PPF will be lower when the price
increase is of higher magnitude than of lower magnitude. Therefore,

\[ H2: \text{ A high price increase (vs. low price increase) will decrease } \]
\[ \text{Perception of Price Fairness} \]

It is important to mention in this context that we have conceptualized direct effect of
price increases on the PPF, regardless of what the price perception is. It is quite likely
that a price increase may be held normal or acceptable, i.e. price perception is low;
yet, it may lead to a PPU. Likewise, it is also conceivable that a price increase is
considered fair, yet unacceptable (Urbany, Madden and Dickson, 1989).

3.2.3 Role of Justification and Perceptions of Price Fairness

In this chapter we exposit impact of presence and absence of justification and
different types of justification on the dependent variables. When price is increased,
consumers compare the new price with a reference price, and they are likely to search
for causal explanations since the event is surprising and/or negative; this is in line
with attribution research, e.g., Folkes, 1988.

Attributional processes are those processes governing a perceiver’s attention to,
thought about, and apprehension of “perceived events”. In the case of current chapter,
the event is the “perceived price increase” by the seller. Attribution theory is typically
concerned with the processes and schema invoked by the perceiver in assigning
causes to these events. Through such causal analyses the perceiver arrives at
inferences about the underlying intentions or dispositions of other persons (Jones and
Davis, 1965). For e.g., a consumer may infer motives of the seller for an event of
price increase (Campbell, 1999b). Presumably such inferences can mediate a variety
of consequent interpersonal phenomena, e.g. when the motive of the seller for a price
increase was inferred to be negative (say, exploit the consumer), consumers perceived the price increase unfair and consequently reported lower purchase intentions (Campbell, 1999b). For such inferences to be arrived at, the perceiver must also believe that the actor (1) has the knowledge, i.e. foresee, the effect on the perceiver, (2) has the ability to inflict such effect on the perceiver, and (3) the actor’s actions has at least one favorable outcome to the actor (Jones and McGillis, 1976). It follows that the seller, in the event of a price increase, has to manage the predicament of potential poor impression or negative inferences / perceptions.

In general, provision of a justification or explanation for an act influence perceptions of fairness (Bies and Shapiro, 1988). There are several studies that discover the importance of provision of a justification or rationale for price increase and they show that the outcome is perceived as fairer (or less unfair) than when the same outcome arises with no justification offered (e.g. Urbany, Madden and Dickson, 1989; Kimes, 1994). However, none of the studies provide theoretical reasons why it is so; we fill this void. Further, in this chapter, we also show how different types of justification impact PPF differently.

When people find themselves in predicaments that cannot be avoided or concealed, they will engage in behaviors designed to reduce the potential negative consequences and maximize their expected reward cost ratios (Schlenker, 1980). In general, there are two tactics that people may adopt: retreat or remedial action. Retreat is running away and hiding. We extend the idea to a price-increase event to mean, that seller is not facing the consumer at all or providing no defense, excuse, or explanation. However, such flight may turn a bad situation into worse one. The consumers’ negative inferences may only accentuate if the seller does not defend his actions.

Remedial tactics / actions are of four types: defense of innocence, excuse, justifications and apology. Defense of innocence are attempts by people to show that they are not associated with the event that caused the predicament (defense of non-causation). For instance, the seller may take a plea that the price increase was due to government price-setting that was legally binding. Vaidyanathan and Aggarwal (2003) show when the seller can shift the locus of causality from himself to others.

29 We go no more than mentioning the term ‘apology’ in this study. We suggest that this is a matter of future research.
PPU is attenuated. Excuses are attempts to avoid responsibility for the predicament-creating event. In attempting to provide excuses, the person may say that the undesirable consequences could not have been foreseen. Vaidyanathan and Aggarwal (2003) show when the seller is able to demonstrate that the price increase was not under his volitional control, PPU was attenuated. Otherwise, the seller may also say there were other people who are also responsible for the event (diffusion of responsibility).

Recall the effect of fair price being cued by costs (Thaler, 1985). It follows that a price increase that is justified by relevant cost increases ought to be seen more favorably than a price increase without (Urbany, Madden and Dickson, 1989). Justifications are attempts to reduce the undesirable nature of the predicament-creating event. Justifications may be direct attempts to minimize the negativity of the consequences (for example, seller justifying price increase due to raise in input costs), or indirect attempts through social comparison. For instance, a seller may try to justify his/her actions by noting that other sellers have behaved as badly or worse.

Any price increase is undesirable to the consumer. Providing a justification for a price increase may leave the consumer only with a sense of disappointment. However, absence of justification will lead to a sense of injustice and consequent PPU.

Therefore,

\[ H3: \quad \text{Perception of Price Fairness is higher when the seller provides of justification than when not.} \]

3.2.4 Interactive effects of Magnitude of Price Increase and Type of Justification on PPF

We now explore the effect of two types of justification on PPF. Seller provides justifications or explanations to the consumer in the form of information. For e.g. consumer is informed of the price increase due to increasing wages or procurement costs. While some justification is directly relevant, such as in the foregoing example, others may be Placebic. Placebic information has no meaningful content to deliver to the consumer for e.g. ‘the price has been increased because we had to raise it.’ There
is reason to believe that, under certain conditions, even Placebic information will suffice as adequate justification.

Recall, attribution theory posits that people search for causal explanations for interpreting events and such causal explanations influence the subsequent inferences. The underlying assumption here is that people attend to such information or explanations in a mindful manner and derive behavioral strategies based on such current incoming information. We posit that, under some circumstances, intention and consequent behavior may be possible without paying attention to substantive elements of the informative environment. We call this as ‘recognition-primed mindless processing’.

In ‘recognition-primed mindless processing’ the new information or justification is actually not being processed. Instead prior scripts, written when similar information really was once new, are stereotypically reenacted. According to Abelson (1976) a cognitive script is a highly stylized sequence of typical events in a well-understood situation; or a coherent sequence of events expected by the individual, involving her/him as a participant or an observer. Consumers often face, in many domains, many vignettes of increasing prices of large and small magnitudes, accompanied sometimes with its attendant justifications and sometimes without. Such vignettes include consumers’ own responses to the price increase and the justifications provided. Responses are summarily of two types: accept price increase and continue purchase or reject and take business elsewhere. Such vignettes in the long run are abstracted to become scripts and scripts help in automating responses. One such script is the response to small price increases and its justifications: such justifications are likely to be processed with very little cognitive effort and are most likely to be routinely accepted.

However, the question is why is it that Placebic information will suffice as adequate justification? The expectations of the justifications itself are so abstracted by the consumers that the cue being a small price increase, justifications are reduced to play a mere role of presence. Consumers hardly seek any quality inferences there from: content in justifications, matter no more. In fact, the notion of a script was used to describe a study by Langer and Abelson (1972), where it was argued that asking a favor had certain script dimensions and that the success of getting compliance
depended on the specific syntax of the request rather than on the specific content of the statement. Langer, Blank and Chanowitz (1978) argue that human behavior is actually accomplished much of the time without paying attention, i.e. without full awareness, to the substantive details of the informative environment. The essence of a script may not lie in the recurring semantics but rather on more general paralinguistic features of the message. When we speak of people organizing incoming information, it is as important to take into account what they systematically process. And when we speak of people ignoring information, it is important to distinguish between information that is ignored because it is irrelevant and information that is ignored because it is already known. It is known because it has been seen many times in the past, and aspects of its structure that regularly appear indicate that this time is just like the past\textsuperscript{30}. Thus, what is meant by recognition-primed mindless processing is this specific ignorance of relevant substance.

Applied to a price increases, the following episodes, witnessed many times, attains the status of being a script: Price is increased. The increase is inferred as small. A presence of justification sought and seen; and without inferring any quality meaning out of the justification the price increase is considered as fair as a condition of relevant justification. Such perfunctory attention to explanations is possible only when the price perception is low, not when it is high. This script is least likely to be evoked and enacted when either the price increase is inferred as high or when the justification is absent. This is because, low price increases produce negligible distress or low distress as opposed to price increases of large magnitude. Larger the distress, higher the attention paid to information that provides a justification. That is, when the price increase is of high magnitude, it may shock the consumer and set one in a System 2 thinking mode rather than System 1 (Stanovich and West, 2000).

System 1 and System 2 thinking was developed for differentiating how people alternate between two types of cognitive processes - intuitive and reasoning - for judgment and decision making. The operations of System 1 are fast, automatic, \textsuperscript{30}A very simple example is the case of my failure to correct some genuine spelling errors in typing in this text underlined in red by MS Word. I missed them because, there are many author names quoted in this text that apparently are not available in the MS Word dictionary and hence underlined in red. Since I have many times ‘noticed’ such underlines under author names, I ignore them. Consequent to this ‘script’ I ignore a few mistakes in genuine English words too considering them to be author names! However, when there are one too many red lines in the text, a more effortful processing eliminates them. This is also similar to recognition-primed action. Please continue reading.
effortless, associative, and difficult to control or modify. System 2 operations are slower, serial, effortful, logical and deliberately controlled; they are also relatively flexible and potentially rule-governed. The operating characteristics of System 1 are similar to the features of perceptual processes. The perceptual system and the intuitive operations of System 1 generate impressions of the attributes of objects of perception and thought. People often are in System 1 mode of cognition and use System 2 sparingly.

Intuitive judgments, i.e. impressions led System 1 cognition, are based on the concept of accessibility – the ease with which particular mental contents come to mind (Higgins, 1996). A defining property of intuitive thoughts is that they come to mind spontaneously. Consider the following Figure 3.

![Figure 3: A set of lines](image)

It is easy to estimate the average of the lines in the Figure 3 in page 50. This so because, when a set of objects of the same general kind is presented, a representation set is estimated automatically. The representation of the prototype is highly accessible and we form an impression of the typical line without choosing to do so. However, it is difficult to estimate the total length of the lines and hence requires System 2.

For a recognition-primed decision making, what information is accessible is determined by stimulus salience, selective attention and response activation or priming. Sheridan (2001) posits that with experience a person tends to become
automatic – moving from sensing and perception directly to action without appearing to consider alternative decisions or decision criteria or to think consciously. Recognition-primed decision making is when a person extracts features out of a landscape of information triggers and directly proceed to sensory-motor actions. Szambok and Klein (1997) recognize such ‘recognition-primed mindless processing’ among fire-fighters, pilots etc. The firefighters show no signs of elaborate decision making and often cannot explain a particular action during fire-fighting, though their actions most times are the best ones among alternatives.

When applied to price increase of low magnitude with Placebic justification, the mind recognizes parts of the words of a sentence that primes existence of a justification (e.g. a word ‘because’, or a phrase “the price is increased because”) and the consequent impression signals adequacy of justification. However, when the price increase is of higher magnitude, the price stimulus becomes more salient and hence consequent processing of justifications takes System 1 route where only relevant justification may suffice. Therefore,

\[ H4: \text{ When the magnitude of price increase is low, PPF would be lower when the justification is Absent as opposed to Placebic or Relevant justifications.} \]

\[ H5: \text{ When the magnitude of price increase is low, there will be no significant difference in perception of price fairness between Placebic and Relevant justifications.} \]

\[ H6: \text{ When the magnitude of price increase is high, perception of price fairness would be lower when justification is Absent or Placebic as opposed to Relevant justifications.} \]

\[ H7: \text{ When the magnitude of price increase is high, there will be no significant difference in perception of price fairness between Absent and Placebic justifications.} \]
3.2.5 Role of Justification and Price Perceptions

While presence or absence of justification may influence PPU, the role of justification on price perception is insignificant. This so because, a price increase may be perceived as high / unacceptable / expensive, regardless of whether it was justified or not. Therefore,

\[ H8: \text{Type of Justification has no significant impact on Price Perceptions.} \]

3.2.6 Interactive Effects of Type of Justification and Magnitude of Price Increase on Price Perceptions

We hypothesized that while Magnitude of Price Increase has a direct main effect on Price Perceptions. However, we also hypothesized that Type of Justification may not have any impact on the Perception of Price. We combine the two to hypothesize that

\[ H9: \text{Interactive Effects of Type of Justification and Magnitude of Price Increase has insignificant impact on Perception of Price.} \]

3.2.7 Framing Effects and Price Perceptions and PPU

Amidst a din of regular retailer promotions, a seller surreptitiously raising price and then off-setting the price increase with a partial / full discount is not new in the annals of marketing. The framing attempt of the sellers is to mask the price inflation in case of a partial discount or render the current price more attractive in the case of a full-discount; we are interested in the former case. While unethical, such practices appear to be only increasingly popular over the years. Kumaran Silks, a garment retailer in Chennai, India, attempts to decry the practice and at the same time solidify the suspicion about such pseudo-discounts to conviction by proclaiming ‘never a sale price’ through the year! We believe they are fighting a losing battle. Pseudo-discounts are popular because they attenuate the price perceptions and PPU due to price increases. Before we commence the discussion section, we throw more light on the two cases that are being compared and state the hypothesis.
Case 1: A simple price increase of $\Delta X$ over $X$; consider final price to be $A$.

Case 2: An increase of $\Delta Y$ over $X$ and a price-off of $\Delta Z$; Consider $X + \Delta Y = B$; $B-\Delta Z = A$.

Conditions:

$\Delta Y > \Delta X$,

$X > \Delta Y$, $\Delta X$,

$\Delta Z > 0$, and

Prices $X+\Delta X$ (i.e. $A$) and $X+\Delta Y$ (i.e. $B$) is considered plausible by the consumers and $X$ as the base price is known to consumers.

Finally, $X+\Delta Y-\Delta Z = X + \Delta X$; that is, outcome of case 1 and 2 are objectively the same.

We propose that Case 2 price would be perceived less unfair and low than Case 1 price. We investigate the proposition using four much related ideas (1) discount as a signal, (2) framing effects, (3) the idea of reduction of losses or non-losses providing a value to consumers and (4) transaction utility theory.

Discount as a mere signal providing added value to consumers arises from findings of two studies, one by chance and other of design that investigated effects of promotional price cuts. We draw attention to the fact that these studies investigated just effects of regular price-cuts, i.e. without simultaneous price-increases and were genuine price-cuts. Guadagni and Little (1983) modeling consumer choice using multinomial logit technique discovered that a simple presence or absence of a promotion cue (a dummy variable) had main effect, i.e., statistically significant and an indication that the variable was independent of the depth of discounts. The inference is that mere presence of a promotion cue, regardless of levels of price-cuts, may be attractive. Dickson and Sawyer (1990) showed that less than 15% of the consumers surveyed immediately after placing an item under promotion in the shopping cart could recall the amount of price-cut; this was also reconfirmed later by Boutillier, Boutillier and Neslin, (1994). A possible explanation for why a pseudo-discount may
reduce price perceptions as well as PPF when compared to a no discount scenario is that over time, consumers abstract signals of discounts to mean increase in value to the consumer. It may appear that a mere signal of discount adding value is a case of ‘recognition-primed mindless processing’ and may not work if the consumer engages in active processing of the discount-cue. We posit otherwise. Even if the pseudo-discount cue was actively processed, there exists value to consumers. We now turn to Prospect Theory and related ideas for explanations.

Framing is designing the information cue in such a way that consumers may interpret the stimuli as a gain or a loss. For instance, Levin (1987) shows that favorable or unfavorable associations with positively or negatively phrased attribute labels mediate the evaluations of consumer goods; it was shown in a hypothetical purchase situation of ground beef, consumers evaluated more favorably when it was described as “75% lean” than “25% fat”. It is of interest to note that the two options are formally equivalent. The valuations of the two options differ because, consumers use a neutral reference point from where one option seems favorable and the other unfavorable. Consider the example in Tversky and Kahneman (1981) that illustrates the framing effects that we reproduce under quotes. Further, the percentages mentioned in the parenthesis are the percentages of responses from the sample that chose the option:

“Problem 5 (N=152): Imagine that the U.S. is preparing for the outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Assume that the exact scientific estimates of the consequences of the programs are as follows:

If Program A is adopted, 200 people will be saved [72%]

If Program B is adopted, there is 1/3 probability that 600 people will be saved, and 2/3 probability that no people will be saved. [28%]

In problem 5 the outcomes are stated in positive terms (lives saved), and the majority choice is accordingly risk averse. The prospect of certainly saving 200 lives is more attractive than a risky prospect of equal expected value. A second group of respondents was given the same cover story with the following descriptions of the alternative programs.
Problem 6 (N=155):

If Program C is adopted 400 people will die. [22%]

If Program D is adopted there is 1/3 probability that nobody will die, and 2/3 probability that 600 people will die. [78%]

In problem 6 the outcomes are stated in negative terms (lives lost), and the majority choice is accordingly risk seeking. The certain death of 400 people is less acceptable than a two-thirds chance that 600 people will die. Problem 5 and 6, however, are essentially identical. They differ only in that the former is framed in terms of the number of lives saved (related to expected loss of 600 lives if no action is taken), whereas the latter is framed in terms of the number of lives lost.” (p 454-55)

Thaler (1980) shows how a difference between two prices when labeled as surcharge is less acceptable than when labeled as a discount, even though both the outcomes are exactly the same to the consumer. For e.g. consider a standard rail fare difference between regular consumers and the aged. Regular consumers will accept their fares less when the price difference is labeled as a surcharge over the fares for the aged; however, it is acceptable if labeled as a discount for the aged over the fares for the regular. In line with framing effects, pseudo-discount will be more attractive than a no-discount situation for a given price increase, thereby also attenuating the perception of price and accentuating the PPF. This so since, a simple price-increase may be seen by consumers as a surcharge. However, a pseudo-discount frames a pure-loss due to price increase as a combination of a loss due to price increase coupled with a gain due to pseudo-discount.

Another reason why such pseudo-discounts work is because of the way consumers evaluate actual losses and non-losses. Prospect Theory (Kahneman and Tversky, 1979) captures subjective value functions of objective gains and losses. Since, losses are experienced more intensely than gains, the loss curve is steeper at the origin than the gain curve. Losses as well as gains are evaluated with respect to a neutral point. In line with prospect theory, provision of a ΔZ discount, as in case 2, is in line with avoidance of ‘loss’ or ‘a situation of ‘non-loss’ of Liberman, Idson, and Higgins (2005). Such non-losses reduce disutility.
A survey of Figure 4 will illustrate the concept applied. Consider case – 1, a consumer who is facing a price increase of $\Delta X$ that is subjectively valued by a factor ‘$v$’, that results in a net pain or disutility of $v(-\Delta X)$. Consider case – 2 now, of a similar consumer facing a price increase of $\Delta Y$ (and most importantly $\Delta Y > \Delta X$) with a discount of $\Delta Z$ such that final price in case 1 and 2 to the two consumers are the same. In the latter case, the pain / disutility due to price increase ‘$v(-\Delta Y)$’ is eased by a discount of $\Delta Z$ that is again valued subjectively as ‘$v(\Delta Z)$’.

**Figure 4: Why and How Pseudo-Discounts Work**

The interesting point is the provision of discount reduces the pain / disutility at the steeper portion of the curve thereby resulting in a net pain / disutility that is far lower than the total pain / disutility in case 1. That is pain / disutility $v(-\Delta X) >> v(-\Delta Y) + v(\Delta Z)$.

Why would the consumer not want to ‘see through’ the pseudo-discount (in Case -2), i.e., rather segregate the ‘loss’ due to price increase and ‘non-loss’ due to discount, albeit pseudo, than collapse the net outcome to be just the pure loss (as in Case -1)? The answers lie in Thaler’s (1985) principle of silver lining. This principle suggests
that a small reduction in the absolute value of loss if segregated, leads to lesser disutility than otherwise.

Thaler (1985) suggests two kinds of utilities: acquisition and transaction. Acquisition utility is the utility of the difference between reservation price (RP), i.e. the maximum price that a consumer is willing to pay for a particular product, and the actual market price (AP); i.e. \( v(RP - AP) \). The measure of transaction utility depends upon the price the individual pays compared to some reference price, IRP; i.e. \( v(AP - IRP) \). Thus, total utility is therefore:

\[ v(RP - AP) + v(AP - IRP) \]

Thaler (1985) states that IRP is usually the fair price. Further, buyer’s perception of costs greatly influence consumers’ perception of what price is fair. He further states that overall utility may be increased by suggesting a high retail price which plays the role of (a shifted) IRP. That means, a mere suggestion of a high retail price and selling it at a lower price results in transaction utility, which makes the deal more attractive regardless of the fact that the acquisition utility remained constant. We extend this concept in such a way that when the IRP is increased by an amount greater than the intended price increase, and the difference between the new IRP and the actual price is passed on the consumer as a discount, the overall utility would be greater than merely raising the actual price.

Therefore,

**H10:** Presence of Discount (vs. Absence) will reduce Perceptions of Price.

**H11:** Presence of Discount (vs. Absence) will increase Perceptions of Price Fairness.

3.2.8 Interactive Effects of Presence or Absence of Discount and Magnitude of Price Increase on Perception of Price and PPF

Tversky and Kahneman (1981) provide an interesting example of topical account framing when they ask respondents:
“Imagine that you are about to purchase a jacket for ($125)[($15] and a calculator ($15)[($125]. The calculator salesman informs you that the calculator you wish to buy is on sale for ($10)[($120] at the other branch of the store, located 20 minutes drive away. Would you make the trip to the other store?” (p 456)

When two versions of this problem are given (one with figures in the parenthesis, the other with the figures in brackets), most people say that they will travel to save the $5 when the item costs $15 but not when it costs $125.

We extend the logic to our study. Price perceptions ought to be more lower and perception of fairness more higher when the magnitude of price increase is low and there is a provision of discount as opposed to a price increase of high magnitude and no discount. This interactive effect is hypothesized as:

\[ H12: \text{ There will be an interaction effect between the Magnitude of Price Increase and Presence / Absence of Discount such that the Perception Price Fairness will be higher when the magnitude of price increase is low and a discount is offered as opposed to the magnitude of price increase being high and there is no provision of discount.} \]

\[ H13: \text{ There will be an interaction effect between the Magnitude of Price Increase and Presence / Absence of Discount such that the Perception of Price will be lower when the magnitude of price increase is low and a discount is offered as opposed to the magnitude of price increase being high and there is no provision of discount.} \]

3.2.9 Interactive Effects of Type of Justification and Presence or Absence of Discount on PPF and Price Perceptions

Presence of justification attenuates PPF and so does presence of discount. However, discount and justification may have no interactive effects. Therefore,
**H14:** There will be no significant interactive effects of Type of Justification and Presence or Absence of Discount on Perception of Price Fairness.

We have hypothesized that type of justification may not have any impact on Price Perceptions. We extend it to the interactive effects of type of justification and discount cue on Price Perceptions such that,

**H15:** There will be no significant effects of Type of Justification and Presence or Absence of Discount on Price Perceptions.

### 3.2.10 Perception of Price and PPF

Price Perceptions and PPF are different constructs. According to Monroe (1990), buyers internalize the price attribute in terms of Perceived Price, which may influence perceive product quality and perceived product sacrifice. Perceived Quality is cued by Perceived Price since there is usually a natural ordering of price and quality in the market. Higher the perceived price more is the perceived quality. However, Perceived Price also impacts Perceived Sacrifice which is the summated effect of price and other efforts expended by the consumer. The ensuing quality-sacrifice comparison results in an assessment of product value. However, Perceived Quality is held constant in this study. Perceived Sacrifice directly impacts Perceived Price Fairness (Martins and Monroe, 1994). Therefore, Perceived Price impacts PPU/F.

**H16:** Higher the Price Perceptions lower the Perception of Price Fairness.

### 3.2.11 Perception of Price, PPF and Purchase Intentions

We draw from some key past researches (e.g. Ajzen, 1991, Fishbein and Ajzen, 1975), that posit Intentions are driven by Perceptions. Therefore, it is likely that higher the price perceptions lower the purchase intention and lower the PPF, lower the purchase intention. Further, when price perceptions are low and perception of fairness is high, there ought to be in interactive effect on Purchase intentions. Therefore,

**H17:** Higher the Price Perceptions lower the Purchase Intention.
**H18:** Higher the Perception of Price Fairness higher the Purchase Intention.

**H19:** The interactive effect of Perception of Price and Perception of Price Fairness on Purchase Intentions will be significant.

The hypotheses are modeled in Figure 5.

![Figure 5: The Model](image)

### 3.3 Methodology

This study is a 2 x 3 x 2 between-subject design, crossing price cue (Low, High), justification cue (None, Placebic and Relevant) and discount cue (Absent, Present). Participants were 422 graduate and undergraduate students; 29 were eliminated since they did not follow instructions or left some questions unfilled. The average age was about 22 years, average student discretionary income was about 9,000/- and the gender ratio was women is to men was 69 is to 324. None of the participants were compensated.\(^{31}\)

\(^{31}\) The responses were collected over a period of one-half months commencing middle of Jan 2008.
3.3.1 **Stimuli**

The stimuli consisted of scenarios describing a purchase of household goods category by the respondents. Several issues were resolved using pre-tests (n=40). They revealed that price fluctuations are not unusual in this category and students often purchase household goods (e.g. curtains, chairs, etc.). For the focal product in this study – a plastic chair - (1) was relevant to the set of respondents, (2) the mean price of Rs. 294 for a plastic chair with price range from Rs. 240 – Rs. 360 (after removing outliers), (3) expected discount can be anywhere from Rs. 0 to Rs. 50, (4) expected price increase from 5% to 25%, (5) that a price increase that may be considered ‘low’ is average 4.8% (mode = 5%) and a price increase that may be considered ‘high’ is average 18% (mode = 20%), and (6) price increase that may be considered implausible is above 30%. Care was taken not to include the pretest respondents in the main study.

The base price for the plastic chair was set at Rs. 300/- considering the pre-tests and investigations in the market. The low magnitude of price increase was cued by a revised price of Rs. 315/-; the high magnitude of price increase was cued by a revised price of Rs. 360/-. The Placebic Justification was designed to be a phrase “we had to increase the price because we had to” added in the scenarios. The Relevant Justification was designed to be a phrase “we had to increase the price because the cost of procurement has gone up”. The discount was considered to be a flat Rs. 20/-. Care was taken in line with studies in the past (e.g. Chen, Monroe and Lou, 1998) to avoid percentage based discounts and used Rs-off discounts considering the base price and product.

Twelve scenarios were developed as in Annexure 1. All participants were instructed as follows: “Imagine that you are rearranging your room and have been looking for a new plastic chair. Last, week you saw one that you liked for Rs. 300/- at one of the local stores, in the city and decided to take a friend to go look at it again. The local store has reasonable reputation in the area and your past purchases from the store have been satisfactory. While looking at the plastic chair, you ask for the price again.” At this moment, in a dialogue format, to half the respondents the owner ‘informs’ a price entailing an increase of low magnitude, i.e. Rs. 315, and the other half a price entailing an increase of high magnitude, i.e. Rs. 360. Crossed with this half learned
that there was a discount of Rs. 20, after raising the price further by the discount amount, and the other half were not informed about any discount. Crossed with this, about a third of the total respondents were not informed any reason for price increase, a third were provided a reason that was Placebic and the rest were provided a relevant justification. Inclusion of cues concerning store reputation and prior customer satisfaction are in line with prior research that posit influence of those variables on PPF and Price Perceptions (Campbell, 1999b and Homburg, Hoyer and Koschat, 2005). Inclusion of such factors in the scenario eliminates potential confounds due to imagined reputation and customer satisfaction effects of respondents.

3.3.2 Dependent Measures

Next, the participants rated Perceived Price Fairness of the final price to the respondent on a 7-point, 3-item scale, on fairness, unfairness (R), and reasonableness all anchored 1= “extremely” and 7= “not at all”; the Cronbach’s Alpha for PPF Scale is 0.7988. The scale for PPF is mostly in line with several past studies (e.g. Lee-Wingate and Corfman, 2006; Campbell, 2007). We slightly depart from a convention in literature; we name the scale as “Fairness” instead of ‘Unfairness’. The departure is no more than a matter of naming and has no other implication, especially of construct validity. The same scale measures ‘Unfairness’ if the values are reversed. We pay respects to the serious debate in literature – whether fairness and unfairness are opposites of the same construct or not - by including both the items in the scale.

Next, the participants rated Price Perceptions of the final price on a 7-point, 5-item scale, as to the whether the final price was (1) 1= “about the same as the initial price” and 7= “not at all same as initial price”, (2) 1= “very expensive” and 7= “not at all expensive” (R), (3) 1= “about normal” and 7= “very abnormal”, (4) 1= “not at all acceptable” and 7= “acceptable” (R), and (5) 1= “low deviation from initial price” and 7= “high deviation from initial price.” It is worthy to be mentioned here that the standard scales for Price Perceptions are quite different from the one that is used here. Most researches32 use polar opposites such as “cheap / expensive” or “very low / very

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32 The earliest of the Price Perception scale (as in Cooper, 1969) uses a simple 7-point one item scale with anchors expensive and cheap, and still remains the top-of-the-mind measure of Price Perception. However, there are multitude of studies that use diverse other items. For instance, Herrmann, Xia, Monroe and Huber (2007) use item ‘value for money’, ‘meeting expectations’ and ‘appropriateness’; Maxwell (2005) measures Price Perception in a single item scale similar to that of Cooper, 1969, but is not an independent measure of price but a comparative one with another price: that is, it is actually
high”, since they measure price perceptions consequent to a two-way shift (one positive and the other negative from a reference price). We opine that these scales may not be used as such since the subject deals with just one-way shift and that too negative. The 5-item price perception scale has high reliability indicated by Cronbach’s Alpha = 0.9130. A confirmatory factor analysis revealed that the scale items load to just one factor with a high 75.8% of the variance being explained by that one factor. Lastly, the participants indicated their willingness to buy on a 7-point, 1-item scale anchored 1= “extremely unlikely” and 7= “extremely likely”.

3.3.3 Check Measures

Next, the participants rated the perceived typicality of the scenarios on a 7-point, 2-item scale anchored by “usual / unusual” and “typical / novel”. The scale has a reliability Cronbach’s Alpha = .9294 and the values are significantly less than the mid-point of the scale (t= -13.566, df 392, p < 0.000 and t= -11.078, df 392, p <0.000 respectively). Next, the participants were asked for their (1) age, (2) gender and (3) average monthly expenses after accounting for tuition, books and mess-bill. The last is used as a proxy for monthly student income.

3.4 Analysis, Results and Discussion

Since the two dependent measures, PPF and price perceptions are conceptually related, we expect them to be statistically correlated. The two dependent variables are significantly correlated (r= -.725). Therefore, a 2x3x2 full factorial MANCOVA, with age, income and gender as covariates was performed. All analysis in this study are at significance level of α = 5%

The three dependent measures (including Purchase Intention) are multivariate normal. Skewness = 0.123; z-score = -0.319 and p > 0.750; Kurtosis = 15.684; z-score = 1.337 and p > 0.181; and Skewness and Kurtosis $\chi^2 = 1.889; p > 0.389$.

‘cheaper’ or ‘more expensive’; Oh and Jeong (2004) additionally use items such as “low/high” and “not at all pricey / very pricey”; Oh (2003) additionally uses an item “a real rip-off / a real bargain”; Varki (2001) uses polar opposites “poor / excellent” as reflections of Price Perceptions for a given price. It is to be mentioned here that, except the first item, all the other items used for measuring the construct “Price Perceptions” in this study are found in some of the most prominent pricing researches, e.g. Monroe (1973).
Box’s Test of equality of Covariance Matrices for the full factorial MANCOVA, testing the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups, shows that one may not reject the null; Box’s M = 15.805; F (33, 300682) =0.467; p > 0.996. Levene's Test of Equality of Error Variance, testing the null hypothesis that the error variances of the dependent variables are equal across groups, shows that one may not reject the null in both the cases; for Price Perceptions F(11, 381) = 0.741, p > 0.699; and for PPF F(11,481) = 1.561, p > 0.108.

Multivariate Tests MANCOVA reveals several of the hypothesized effects are significant. See Annexure 2 for complete details. The results also suggest further analysis using ANCOVA for each of the dependent variables. The results of tests of between the subjects using ANCOVA are displayed in Table 1.

<table>
<thead>
<tr>
<th>Covariate / Effect / df / Type of Justification</th>
<th>Perception of Price Fairness</th>
<th>Price Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariate - Income 1 / 0.419 / 0.518</td>
<td>Covariate - Age 1 / 544.845 / 0.000</td>
<td></td>
</tr>
<tr>
<td>Covariate - Gender 1 / 0.529 / 0.467</td>
<td>Covariate - Gender 1 / 42.624 / 0.000</td>
<td></td>
</tr>
<tr>
<td>Type of Justification 2 / 133.750 / 0.000</td>
<td>Type of Justification 2 / 0.244 / 0.784</td>
<td></td>
</tr>
<tr>
<td>Magnitude of Price Increase 1 / 1206.819 / 0.000</td>
<td>Magnitude of Price Increase 1 / 906.368 / 0.000</td>
<td></td>
</tr>
<tr>
<td>Presence / Absence of Discount 1 / 84.798 / 0.000</td>
<td>Presence / Absence of Discount 1 / 68.515 / 0.000</td>
<td></td>
</tr>
<tr>
<td>Type of Justification * Mag. Of Price Increase 2 / 43.561 / 0.000</td>
<td>Type of Justification * Mag. Of Price Increase 2 / 0.549 / 0.578</td>
<td></td>
</tr>
<tr>
<td>Type of Justification * Presence / Absence of Discount 2 / 0.989 / 0.373</td>
<td>Type of Justification * Presence / Absence of Discount 2 / 0.462 / 0.630</td>
<td></td>
</tr>
<tr>
<td>Mag. Of Price Increase * Presence / Absence of Discount 1 / 0.000 / 0.991</td>
<td>Mag. Of Price Increase * Presence / Absence of Discount 1 / 8.070 / 0.005</td>
<td></td>
</tr>
<tr>
<td>Type of Justification * Magnitude of Price Increase * Presence / Absence of Discount 2 / 1.639 / 0.196</td>
<td>Type of Justification * Magnitude of Price Increase * Presence / Absence of Discount 2 / 1.229 / 0.294</td>
<td></td>
</tr>
<tr>
<td>Error 378 / 392</td>
<td>Error 378 / 392</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Analysis of Covariance Results

As predicted, Magnitude of Price Increase (MPI) significantly impacts Perceptions of Price (F(1,378) = 906.368; p < 0.000). When the MPI is low the Price is Perceived to be significantly lower than when the MPI is high (MPI Low = 2.63 vs. MPI High = 5.20), thus validating H1. Similarly, MPI significantly impacts Perceptions of Price
Fairness (F(1,378) = 1206.819; p < 0.000). When the MPI is low the Price is Perceived to be significantly Fairer than when MPI is high (MPI Low = 4.80 vs. MPI High = 2.85), thus validating H2. It is important to note here that respondents are tolerant of low price increases such that they extend the same perceptions they would have as if the price was not increased. While there was no control group to be compared with, the foregoing conclusion is evident from the absolute levels of Price Perceptions and Perceptions of Price Fairness. When the MPI is low, respondents consider the final price to be about the same as the initial price is evident from the mean Price Perception value of 2.63 that is way below the mid-point of the scale (t (1,198) = 293.15; p < 0.000). Further, PPF, when MPI is low, is also in the expected direction: well above the mid-point of the scale and at 4.80 (t (1,198) = 147.40; p < 0.000). On the other hand, when MPI is high, Price Perception is significantly higher than the mid-point of the scale (t (1,191) = 223.689; p < 0.000) and so is Perception Price Fairness lower than the mid-point of the scale (t (1,191) = 206.355; p < 0.000).

The inevitable conclusion is that respondents do not consider all price increases to be unfair; especially price increases of low magnitude are tolerated and only when price increase are way beyond the acceptable range of prices do respondents consider issue of fairness. Perceptions of inequity and injustice, reflected in low PPF, are evident when the magnitude of price increase is high.

Type of Justification significantly impacts Perceptions of Price Fairness (F(2,378) = 133.750; p < 0.000). When Type of Justification is Absent vs. Placebic vs. Relevant, the mean PPF is 3.30, 3.83 and 4.40 respectively. Post-hoc tests reveal differences among means are significant; the mean difference between No Justification and Placebic is 0.53 (p < 0.002) and between Placebic and Relevant is 1.09 (p < 0.000). Therefore, in general, Justification matters thus validating H3. It is also evident that as quality of justification improves, PPF about price increases also improves.

In line with the hypothesis, there is a significant interaction effect of MPI and Type of Justification on PPF (F (2,378) = 43.561; p < 0.000). Contrast analysis using planned, orthogonal comparisons was performed. The contrast analyses that were performed set the price increase of low magnitude / Placebic-justification group and the price increase of low magnitude / relevant-justification group as equal to each other but distinct from the price increase of low magnitude / no-justification group; the price
increase of high magnitude / relevant-justification group was contrasted with the price increase of high magnitude / Placebic-justification group and the price increase of high magnitude / no-justification group.

We have hypothesized that when MPI is low, the means of PPF when Justification is Absent will be significantly lower than when Justification is Placebic or Relevant (H4) and there will be no significant difference between means for Justification Placebic and Relevant (H5). When MPI is low, the mean PPF for Absent is 4.10, for Placebic is 5.12 and for Relevant is 5.18. Further, post-hoc LSD test reveals that there is a significant difference between mean PPF when Justification is Absent and Placebic (mean difference between Absent and Placebic = 1.01; p < 0.000); similar tests also reveals that the difference between mean PPF when Justification is Absent and Relevant is significant (mean difference between Absent and Relevant = 1.08; p < 0.000) thus lending support to H4. Post-hoc LSD test also reveals that when MPI is low, there is no significant difference in the mean for Justification of the type Placebic and Relevant (mean difference = 0.06; p > 0.708), thus lending support to H5. The
means of PPF are displayed in Figure 6 in page 66. Further, planned contrasts using estimated means, including Age, Income and Gender reveal exactly the same results.

It is evident from the results that when magnitude of price increase is low, i.e. when the final price is within the range of acceptable prices, or when the deviation from the base or reference price is acceptable, then respondents engage in ‘mindless processing’ of subsequent justification information. It is amply clear that respondents do look for statements of ‘justification.’ Absence of justification renders price increase of even low magnitude unfair; mean PPF when magnitude of price increase is low and absence of justification equal to 4.1 may not be above even the scale-mid point (t (1,65) = 0.8642; p > 0.195). While seeking justification consumers appear to merely ‘look’ for one and content appears to hardly matter: i.e., even Placebic justification works. Respondents do process justification information effortlessly or mindlessly and a mere recognition of the cue of justification appears enough for the respondents, as if to suggest that there is relevant justification.

We have hypothesized that when MPI is high, the means of PPF when Justification is Absent and Placebic will be significantly lower than when Justification is Relevant (H6) and there will be no significant difference between means for Justification Absent and Placebic (H7). When MPI is high, the mean PPF for Absent is 2.48, for Placebic is 2.46 and for Relevant is 3.60. Further, post-hoc LSD test reveals that there is a significant difference between mean PPF when Justification is Absent and Relevant (mean difference between Absent and Relevant = 1.12; p < 0.000). Similarly, the difference in the mean for Justification is Placebic and Relevant is also significant (mean difference between Placebic and Relevant = 1.14; p < 0.000). These results support H6. Post-hoc LSD test also reveals that when MPI is high, there is no significant difference in the mean for Justification of the Absent and Placebic (mean difference = 0.02; p > 0.919), thus lending support to H7. The means of PPF are displayed in Figure 7 in page 68. Further, planned contrasts using estimated means, including Age, Income and Gender reveal similar results.
It is evident from the results that when the price increase is of high magnitude, due to effortful processing of incoming information, Placebic justification works no better than no justification, i.e. thoughtful processing takes the place of mindless processing. Under such circumstances, only relevant justification may work; obviously, System 2 is at work rather than System 1.

As hypothesized in H8, Types of Justification does not have any impact on Price Perceptions (F (2,378) = 0.244; p > 0.784). In the same vein the interaction effects of MPI and Type of Justification on Price Perceptions are also insignificant (F (2, 378) = 0.549; p > 0.578) thereby lending support to H9. The results throw significant support to why justifications may not impact Perceptions of Price. Clearly, Justifications may impact fairness perceptions, however, that a price, after an increase, may be considered expensive regardless of fairness perceptions.

Presence or Absence of Discount cue has significant main effects on both PPF (F (1, 378) = 84.798; p < 0.000) and Price Perceptions (F (1, 378) = 68.515; p < 0.000) lending support to both the hypotheses H10 and H11. The means of Price Perception are significantly different (Absent = 4.26 vs. Present = 3.52). Likewise, the means of
PPF are also significantly different (Absent = 3.60 vs. Present = 4.09). Recall, the case is of a pseudo discount. That is, in objective terms the final prices are same for the case no-discount and pseudo-discount. Yet, respondents value such pseudo-discounts.

We had hypothesized an interactive effect of Presence / Absence of Discount and MPI on PPF. The hypothesis was that a Low Magnitude Price Increase coupled with Presence of a Discount Cue may render the Price all the more fair as opposed to a Price Increase of High Magnitude coupled with no Discount. However, data does not support this hypothesis (F (1, 378) = 0.000; p > 0.991). Therefore, H12 is not supported. This is indeed surprising to us. One reason why this hypothesis could not be supported may have been founded in the way the experiment was conceived. Recall, the base price is Rs. 300/- The four scenarios are (the figures in the parenthesis are the mean values of PPF for that group) (a) Price increase to Rs. 315/- with no discount [4.55], (b) Price increase to Rs. 335/- with Rs. 20/- as discount [5.05], (c) Price increase to Rs. 360/- with no discount [2.59] and (d) Price increase to Rs. 380/- with Rs. 20/- as discount [3.10]. Objectively, (a) and (b) are similar and (c) and (d) are similar. It is quite likely that a discount of Rs. 20/- on the base of Rs. 380 is as salient as a discount of Rs. 20 on the base Rs. 335/-. The interaction effect may have been pronounced if the two prices compared are wider apart than in the experiment (i.e. Rs. 335 and Rs. 380). We point out that in the example of Tversky and Kahneman (1981) cited in page 57 of the thesis, the two prices are $15 and $125; quite a large degree of price difference.

However, there exists an interactive effect of Presence / Absence of Discount and MPI on Price Perceptions (F (1, 378) = 8.070; p < 0.005), thereby lending support to H13. It is fair to mention here that we ought to have encountered similar problems as in the results of H12.

We had hypothesized no significant interactive effect of Type of Justification and Presence or Absence of Discount on both PPF and Price Perceptions. Results for PPF is F (2, 378) = 0.989, p > 0.373 supporting H14 and for Perception of Price is F (2, 378) = 0.402, p > 0.630 supporting H15.
The relationship between Price Perception and PPF is also significant. We hypothesized that lower the price perception higher the PPF. Regression analysis reveals a significant model (\( F(1, 391) = 433.235; p < 0.000 \)) with a high predictive \( r (r = 0.725) \), lending support to H16.

Finally, Purchase Intentions are also significantly impacted by both Price Perceptions and PPF. Regression analysis, revealed main effects of both Price Perception and PPF, however, the interactive effects of PPF and Perception of Price was not supported. The model is significant (\( F(3, 389) = 465.699; p < 0.000; and r = 0.884 \)). The \( \beta \) coefficient for PPF = 0.549 is significant at \( p < 0.000 \) and \( \beta \) coefficient for Perception of Price = - 0.597 is significant at \( p < 0.000 \). These two results lend support to H17 and H18. However, the \( \beta \) coefficient (0.001) for the interactive effects of PPF and Perception of Price is not significant at \( p > 0.944 \), thus not lending support to H19.

In conclusion, of the nineteen hypotheses, seventeen have been supported. Before commencing conclusions and summary, we now turn to analysis of covariates used viz., age, income and gender.

Both income and gender do not significantly impact any of the dependent variables (see Table 1 in page 64). However, age significantly impacts all the dependent variables.

Age impacts the dependent variables in the expected direction of previous researches (Piron and Fernandez, 1995). Relatively older respondents were more tolerant of price increases and perceived them fairer than younger respondents. One reason, why gender may not have had effect was that in the sample, essentially comprising mostly MBA students, there may have been hardly much gender differences. Further, past three studies have arrived at diametrically opposite results. While Beldona & Namasivayam (2006) and Eckel & Grossman (1996) propose that women perceive unfairness relatively lesser than men, Piron & Fernandez (1995) find the opposite results. We add to the confusion by proposing no difference in PPF between genders. That income has not had an impact may have been because of the proxy that was used: the students’ discretionary monthly expenditure. However, past studies with the same sample suffered due to misreporting of (family / personal) income of students.
3.5 Conclusions and Summary

The findings of this chapter enhance understanding the concept of PPF in several significant ways, in relation with Perceptions of Price and Purchase Intentions.

Recall past studies usually include a ‘moral imperative’ twist, such as a seller raising the price of snow shovels the morning after a storm (KKT, 1986a) that render a situation where it may be hard to infer any other perception of price but that of being unfair. However, most often price changes that consumers face are those without such ‘moral imperative’ twists. The study shows the effect of such price change.

Drawing on earlier theoretical concepts such as Weber’s Law (differential thresholds), Adaptation Level Theory and Assimilation Contrast Theory, the study demonstrates that consumers are in general tolerant of price increases of low magnitude and do not consider it unfair. Further, it appears, DE principle may not apply to price changes of low magnitude. It is quite likely that what constitutes a low price increase or increase may depend on various factors such as the product in question, the context and a host of other variables. However, when the price increase is of high magnitude, consumers consider such prices as unfair and perception of price is high. Clearly, when the price increase is of high magnitude, consumers’ perceptions of inequity and injustice renders perception of price unfair.

No price increase, even if of low magnitude, can be rendered fair if not accompanied with justifications or explanations. Attribution theory, when applied to a price change scenario, posits that such situations are usually undesirable and consumers would seek justifications. We believe that we have filled the void in past studies of lack of theoretical reasoning as to why not providing a justification renders the price change unfair. Using Schlenker’s (1980) concept of impression management, the study shows that providing no justification of a price increase is tantamount to an action of the type retreat by the seller and that can be counter-productive. Remedial actions such as provision of relevant justification increases PPF. However, such justifications do not impact price perceptions since consumers considering a price after an increase as expensive may yet consider it fair.

Applying concepts such as System 1 and System 2 type of cognitive processing (Stanovich and West, 2000) and ‘cognitive scripts’ (Abelson, 1976) this study shows
that consumers, when facing price increases of low magnitude, engage in ‘recognition-primed mindless processing’ by accepting even Placebic justifications (i.e. justifications devoid of any quality) as good as relevant justifications. The implication is that small price increases may not be passed on to consumers without a justification; however, uttering a statement that resembles a good justification would suffice. But, when the price increase is of high magnitude, sellers may not be able to get away providing justifications that are not of quality.

Pseudo-discants (seller raising prices and off-setting it with a partial or full discount) work. Drawing from concepts such as discount as a signal (Guadagni and Little, 1983), and related ideas of Prospect Theory (Kahneman and Tversky, 1979), framing (Tversky and Kahneman, 1981), Transaction Utility Theory (Thaler, 1985), we show that providing a sham discount is of value to the consumer and increases PPF. This is so because the increased price shifts the reference price and a provision of a discount reduces the disutility of the price increase at the steeper portion of the curve thereby rendering the net disutility of the price increase to be lower than when the price was increased without a discount.

Finally, PPF impacts purchase intention positively. That is, higher the PPF and lower the perception of price, higher is the intention to purchase. Thus, the data seems to largely support the model proposed in Figure 5 in page 60.

The findings of this study may have Public Policy implications. That a seller may gradually raise prices (lower than jnd), get away with it, just do with providing Placebic justifications for low price increases and / or improve PPF by providing pseudo-discants (i.e. raising prices and off-setting it with full or partial discounts) have clear ramifications of ethics and consequently Public Policy.

3.6 Limitations

There are a few limitations to the study. One is the use of student sample for research. It is now paradigmatic to use student sample in social psychology research. The debate appropriateness of a student sample rages. There are some compelling arguments for and against. Some authors (e.g. Maxwell, 1999) argue that use of student sample raises questions of external validity. One author, Konow (2003),
performing meta-analysis of all justice and fairness related researches confirms adequacy of student sample for at least justice and fairness related researches. A solution to this problem is to replicate the study in a different sample.

Second limitation is the imbalance in the gender ratio across all cells. However, the gender ratio of the sample reflects the overall gender ratio in the campus.

Third limitation is the use of stimuli in the form of scenarios in English language. The natural buyer-seller interactions are not usually in the English language in India. Perhaps, a translation into vernacular language may have been appropriate. However, considering the fact that the student sample is well versed in English language, imagination of the scenario and consequent responses may have been as close to a case where the scenarios are in vernacular. Use of vernacular was difficult considering the multi-cultural background of the student population, with diversity in spoken languages alone being high.

Fourth limitation is the use of scale that measures Perception of Fairness. Recall discussions in chapter one that raises questions whether fairness and unfairness are opposites of the same construct. While many authors consider so, a few authors’ view that it may not be so is gaining credence. We have, taken the minority latter’s view. However, the fact is that there is no proven scale that measures perceptions of fairness / unfairness and we opine that resolution of this issue is beyond the scope of this research.

Fifth limitation is extent of generalization of the results. Consumers are tolerant of low price increases. Therefore, what would be the result if the seller raises the prices, albeit in small magnitude, successively? Would the time perceptions of price be fair, even after a number of iteration of price increases? We have not investigated this issue.

3.7 Suggestions for Future Research

There are several ways in which this stream of research can be furthered.
One is the using a stream of price increases instead of two levels alone. In this manner, a response function can be generated that has a better predictive validity than the current research.

Two is exploring the type of justification in a more detailed manner. We explored only two types: Placebic and Relevant. The research direction can take several steps forward if justification can be manipulated in terms of content size (large / small), content tone (formal / informal), content quality (factual or persuasive), etc.

Three is exploring limits of pseudo-discounts. Clearly, only when the price increase and consequent discounts are seen as credible would there be value to the consumer. Further, differences in perception may exist between High Need for Cognition (NFC) and Low NFC consumers.