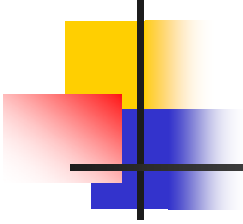


Review

- Perception bias
- Weber-Fechner Law
- Status-quo bias

Summary



- Why do you see so many price tags ending with nines in various retail outlet (Supermarket, convenience store, etc)?

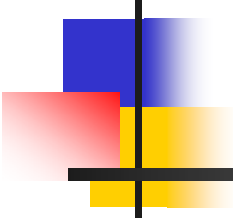
Perception bias

- Why is it not a good idea to trade in your old car when you are buying a new car?

Weber-Fechner Law

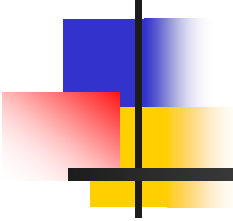
- Rationale behind free-trial offers?

Status-quo bias



Lecture 2

Psychologies of Pricing II



Prospect Theory

Prospect Theory



20" iMac MA876LL/A

\$1,199.99

with \$200 mail-in rebate (Option A)

Why don't simply price it at \$999.99? (Option B)

Motivation

- Mr. A was given tickets to lotteries involving the World Series. He won \$50 in one lottery and \$25 in another.
- Mr. B was given a ticket to a single, larger World Series lottery. He won \$75.

Who was happier?

A _____ B _____ No difference _____

Motivation

- Mr. A received a letter from the IRS saying that he made a minor arithmetical mistake on his tax return and owed \$100. He received a similar letter the same day from his state income tax authority saying he owed \$50. There were no other repercussions from either mistake.
- Mr. B received a letter from the IRS saying that he made a minor arithmetical mistake on his tax return and owed \$150. There were no other repercussions from his mistake.

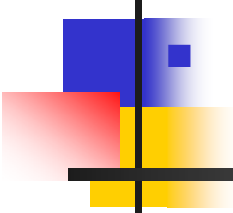
Who was more upset?

A _____

B _____

No difference _____

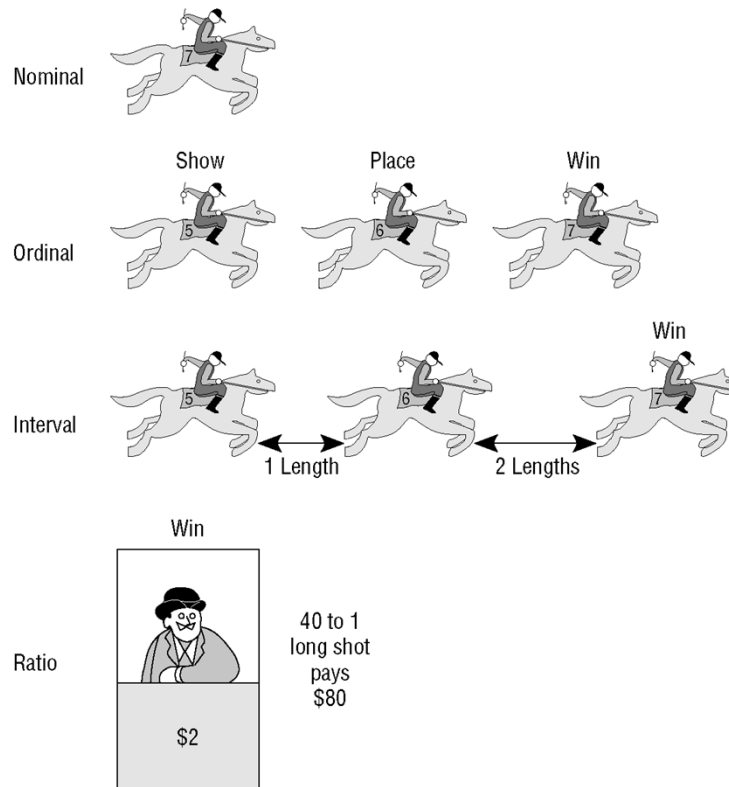
Prospect Theory

- 
- Consumers evaluate purchases as gains and losses relative to reference price
 - Gains and losses have a _____ effect as they grow larger
 - Consumers are _____ sensitive to losses than to gains
 - Utility is a convenient, mathematical abstraction for consumers' preferences.

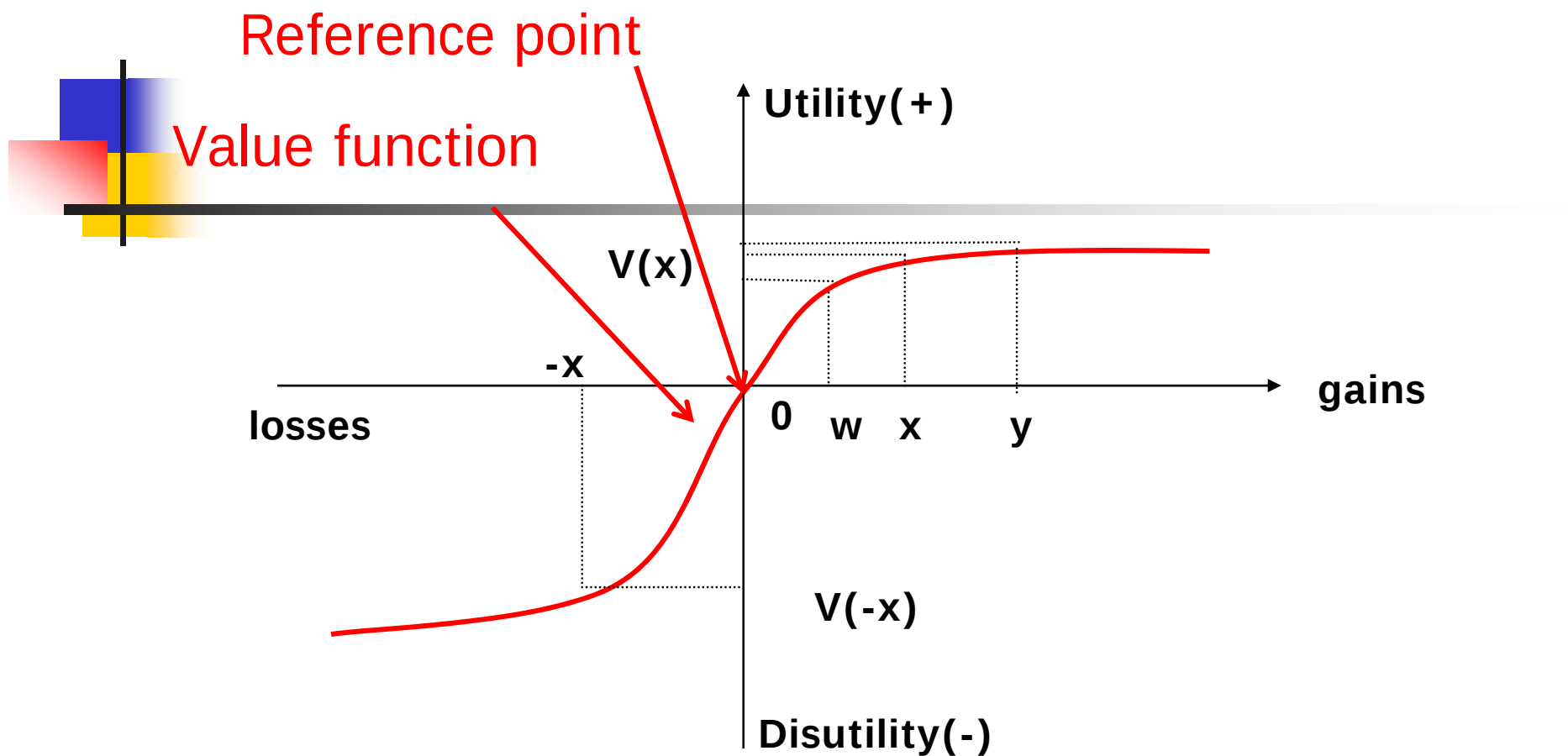
Utility in Prospect Theory

Nominal, Ordinal, Interval, and Ratio Scales
Provide Different Information

Utility is an interval scale, not a ratio scale (only differences in utilities matter). The absolute value is dependent on the choice of the reference point.



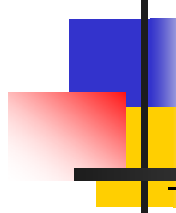
Shape of the Value Function (According to Prospect Theory)



**Option B: Straight
\$999.99**

**What is the Utility
for Option B?**

A Numerical Example



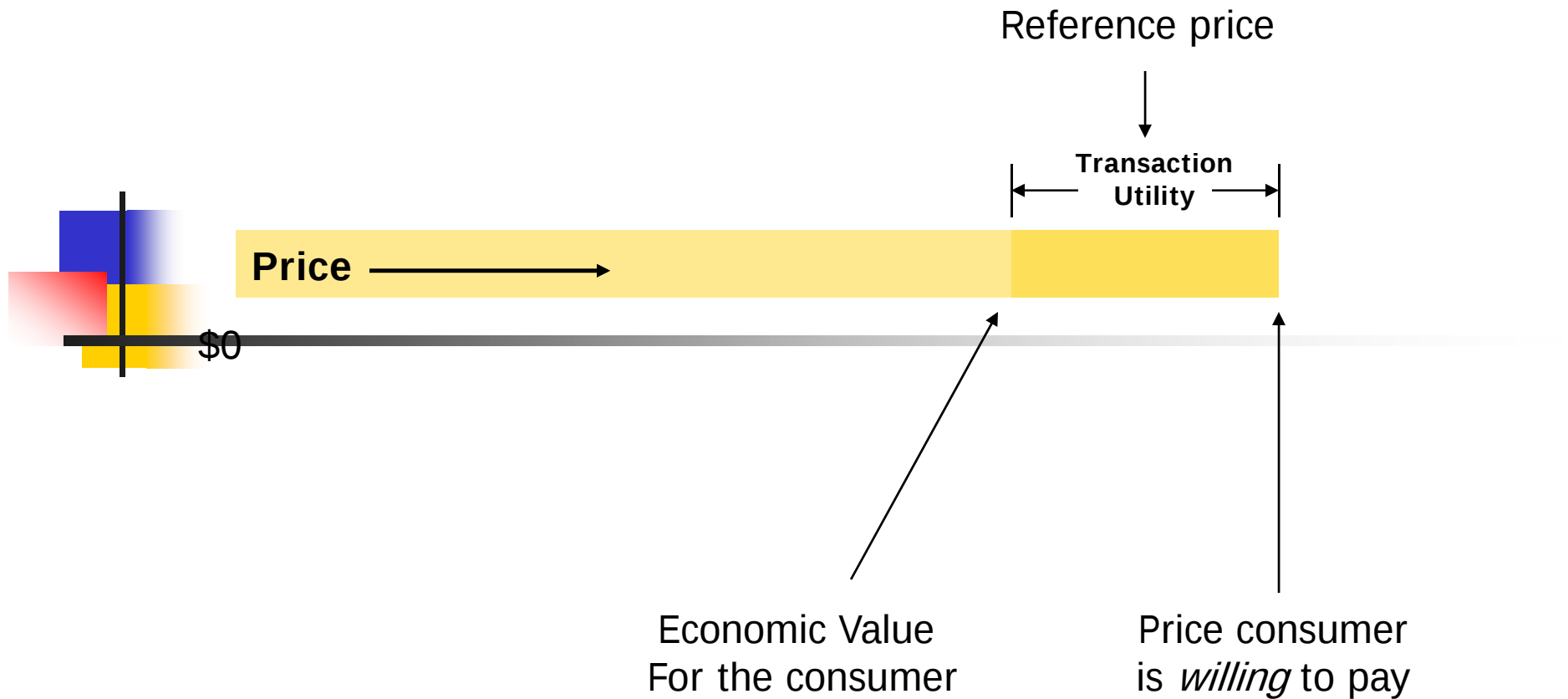
Gain	Change in Utils	Loss	Change in Utils
\$200	+40	\$200	-80
\$400	+30	\$400	-60
\$600	+20	\$600	-40
\$800	+10	\$800	-20
\$1000	+5	\$1000	-10

**Option A: \$1199.99
and \$200 mail-in
rebate**

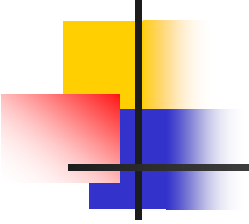
**What is the Utility
for Option A?**

Dr. Yacheng Sun, UC Boulder

Transaction Utility



Implications for Transaction Utility

- 
- Perceived fairness of transaction matters as much as monetary cost.
 - Many “irrational behavior” can be explained by transaction utility.

Reference Price

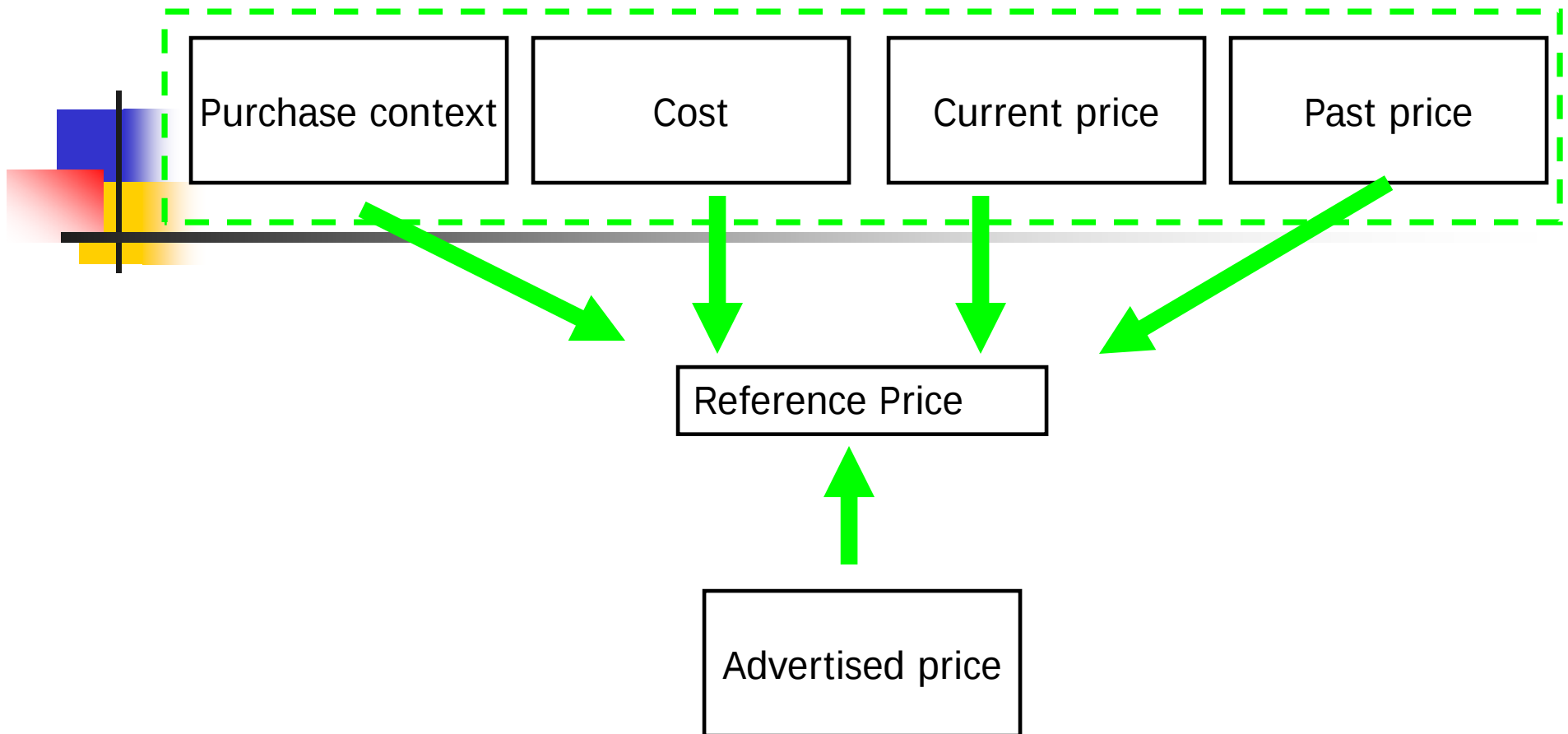
- Theory

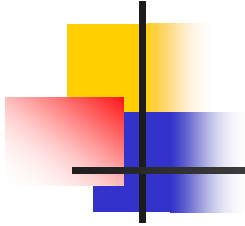
- Reference price: a price against which consumers compare with to assess the “fairness”.
-

- How are the reference prices formed?

- Internal: purchase context, cost, current prices of similar products, past prices.
- External: advertised prices

Formation of Reference Price

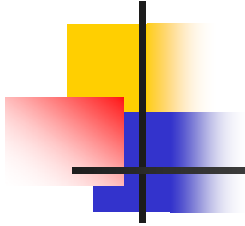




■ Scenario #1



Average WTP:

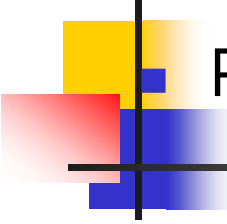


■ Scenario #2



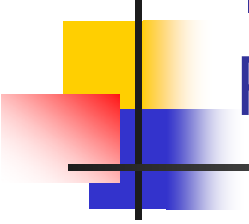
Average WTP:

Formulation of Reference Prices



Purchase Context

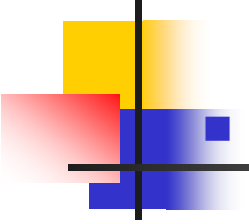
- Purchase context has an extremely important impact on consumer reference price.
- Marketing issues such as where the product is distributed, how the product is distributed, how the product is used, why the product is being used, when the product is being used, and so on, affect the price a consumer is willing to pay for a good or service.
- A marketing manager you need to be keenly aware of the contextual issues that affect price for the products and services in your product line.



Implication of Purchase Context on Reference Price

- When your price is low, facilitate favorable comparisons by highlighting the “core value” of the product or service.
- When your price is high, Avoid unfavorable comparisons by highlighting the differentiation of the product or service.

Formulation of Reference Prices

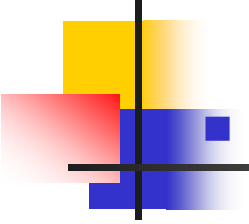


■ Cost

■ Scenario 1

A grocery store has no peanut butter in stock, but is about to receive a new shipment. Prior to delivery, the owner finds out that the wholesale price of peanut butter has increased 20% and will affect this new shipment. The owner decides to increase the price of the new peanut butter by 20%. Is this retailer's action fair or unfair?

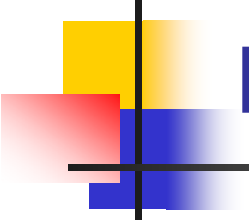
Formulation of Reference Prices



- Cost

- Scenario 2

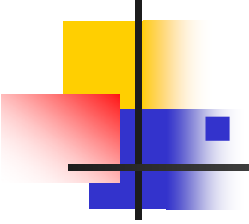
A grocery store has one week supply of peanut butter in stock and is due to receive a new shipment. Prior to delivery, the owner finds out that the wholesale price of peanut butter has increased 20% and will affect this new shipment. The owner decides to immediately increase the shelf price of his current stock of peanut butter by 20%. Is this retailer's action fair or unfair?



Implications of Cost on Reference Price

- How does Microsoft justify its high price of its software that are produced at such a low marginal price?
- How does producers of cardiac pace-maker communicate the price of its product?

Formulation of Reference Prices



■ Current Price

- Product-line pricing – adjustment of the product line can significantly influence consumers' reservation prices for lower-priced items within the product line.

flanking Brand

- A flanking brand is a new brand introduced into the market by a company that already has an established brand in the same product category.
- A flanking brand can be used to
 - Gain more shelf spaces
 - Capture “brand-switchers”
 - Segment market

Flanking Brand and Reference Price

- FB can also be used strategically to manipulate consumers' reference prices.

Low-end \$1,099



Mid-range \$2,549



High-end \$6,949



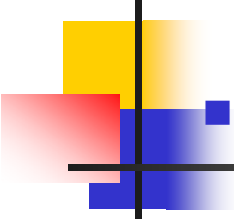
Reference Price Effects of a High-End Product



Microwave Oven Model	Choice %	
	Group 1 (n = 100)	Group 2 (n = 100)
Panasonic II (1.1 cubic feet; regular price \$199.99; sale price 10% off)	--	13
Panasonic I (0.8 cubic feet; regular price \$179.99; sale price 35% off)	43	60
Emerson (0.5 cubic feet; regular price \$109.99; sale price 35% off)	57	27

Source: Itamar Simonson, and Amos Tversky, "Choice in Context: Tradeoff Contrast and Extremeness Aversion," *Journal of Marketing Research*, 29 (August 1992), 281–95.

Formulation of Reference Prices



Current Price

Product-line pricing – adjustment of the product line can significantly influence consumers' reservation prices for lower-priced items within the product line.

flanking Product

- A flanking product is an extra version of product.
- A flanking brand can be used to
 - Segment market
 - Minimize extreme bias (consumers' aversion for going extreme)
 - **Manipulate reference price.**

Example of using flanking product

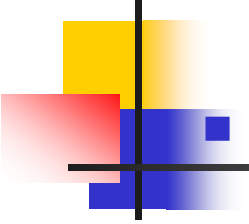


Unit Price

Tall: 12 oz, \$2.75	22.9 cents
Grande: 16 oz, \$3.35	20.9 cents
Venti: 20 oz, \$3.55	17.8 cents

- MORE examples of use of flanking product?

Formulation of Reference Prices



■ Current Price

- Order Effects – reference prices tend to be greater if a high price is shown to the consumer first.

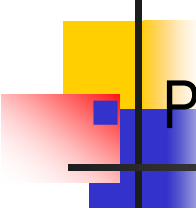
Example: Mail Order Catalogs

Higher priced items are almost always listed first.

This is called _____ – showing a consumer a higher-priced item first rather than the lower-priced item they initially intended to evaluate and/or purchase.

Goal is to reduce the customer's price sensitivity.

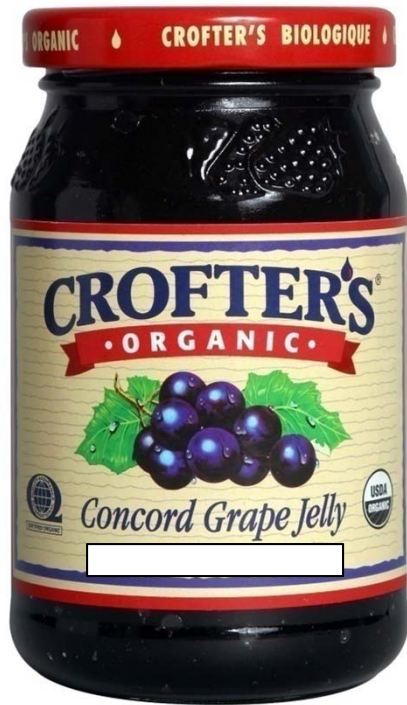
Formulation of Reference Prices



Past price

- The past price of a product can influence a consumer's reference price.
- A new product initially priced very low can have an enduring effect on consumers' reference prices. When product is priced at *regular price*, consumers may perceive the price as being too high or greater than their internally constructed reference price.
- An implication of past prices is that less frequently purchased products and services will be affected more than frequently purchased items.
- Price increases are often the direct result of rising raw material or labor costs, which companies often pass down to consumers in some way.

Implication of past-price effect

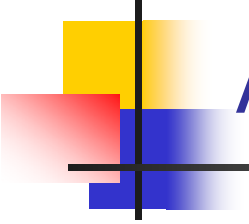




Implication of past-price effect

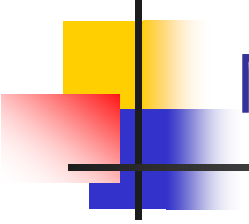
■ How do companies deal with raw material price increases?

- Pass the increase in costs directly to consumer as a higher retail price
- Downsize the product (example: grape jelly price remains at \$2.99, but container is reduced from 12 ounces to 10 ounces – an effective price increase of 20% $[(2.99/10)-(2.99/12))/(2.99/12)]$).
- Alternatively,
 - consider changing the quantity.
 - Redesign product to include fewer attributes
 - Redesign product to include less costly attributes



A Point of Reflection

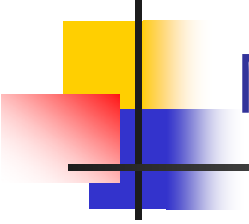
- Consumers' reference price is malleable and dynamic.
- Managers must be careful about how the formation of reference price is influenced by past marketing mixes as well as external factors.



Mind the Reference Price - A Case Study

■ Scenario 1

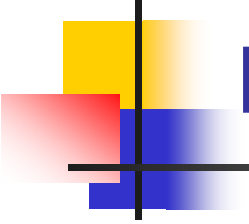
Your favorite sports team has made the playoffs. Its first-round playoff series is a best-of-seven series with four of the possible seven games played on your team's home field. General admission tickets had been priced at \$20 during the regular season. The team decided to raise general admission price to \$40 for these four playoff games. Is this price increase fair or unfair?



Mind the Reference Price - A Case Study

- Scenario 2

Your favorite sports team has made the playoffs. Its first-round playoff series is a best-of-seven series with four of the possible seven games played on your team's home field. General admission tickets had been priced at \$20 during the regular season. General admission tickets were also priced at \$20 for Games 1 and 2 of the playoffs. After Game 2, the team decided to raise prices to \$40 for Games 5 and 7. Is this price increase fair or unfair?



Next Lecture

- Cost-based and Value-based pricing