

Session 6: Consumer behavior theory (framing, schemata, BDT)

- **Customer analysis from other sessions**
 - customer lifetime value (analytics)
 - voice of the customer (product development)
 - pricing (in H2)
 - EVIU (expected value in use),
 - EVC (expected value to channel)
 - conjoint analysis

Session 6: Consumer behavior theory (framing, schemata, BDT)

- **Customer analysis from earlier sessions**
 - customer lifetime value (analytics)
 - voice of the customer (product development)
 - pricing
 - EVIU (expected value in use),
 - EVC (expected value to channel)
 - conjoint analysis
- **Today: consumer behavior theory (sampling)**
 - framing
 - memory schemata
 - behavioral decision theory



Brita Hints

1. The Brita case explores both qualitative insights and marketing analytics.
2. Use strategic positioning to understand the qualitative insights. For example, use the case descriptions to decide what various segments (if there are more than one segment) of customers want? Think carefully about the strategic (long-run) implications.
3. The case contains data from a laboratory test market. Analyzing these data help you to determine whether to launch a faucet filter and, if it is launched, what marketing tactics to use during launch.





Blackberries



100 lbs



99% water



?? lbs



98% water

Images © unknown. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

Nails puzzle

- **Take six ordinary nails and balance them on the head of a seventh nail. No strings, glue, magnetism, etc. allowed. Just the nails.**
- **Reframing next period.**



Image © unknown. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

Simple example of framing



1% Distortion
\$1,000



5% Distortion
\$800

Images © unknown. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

Framing example

A



- **\$3.60 per gallon**
- **10¢ a gallon surcharge for using a credit card**

B



- **\$3.70 per gallon**
- **10¢ a gallon discount for using cash.**

Images of Shell gas station © unknown. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

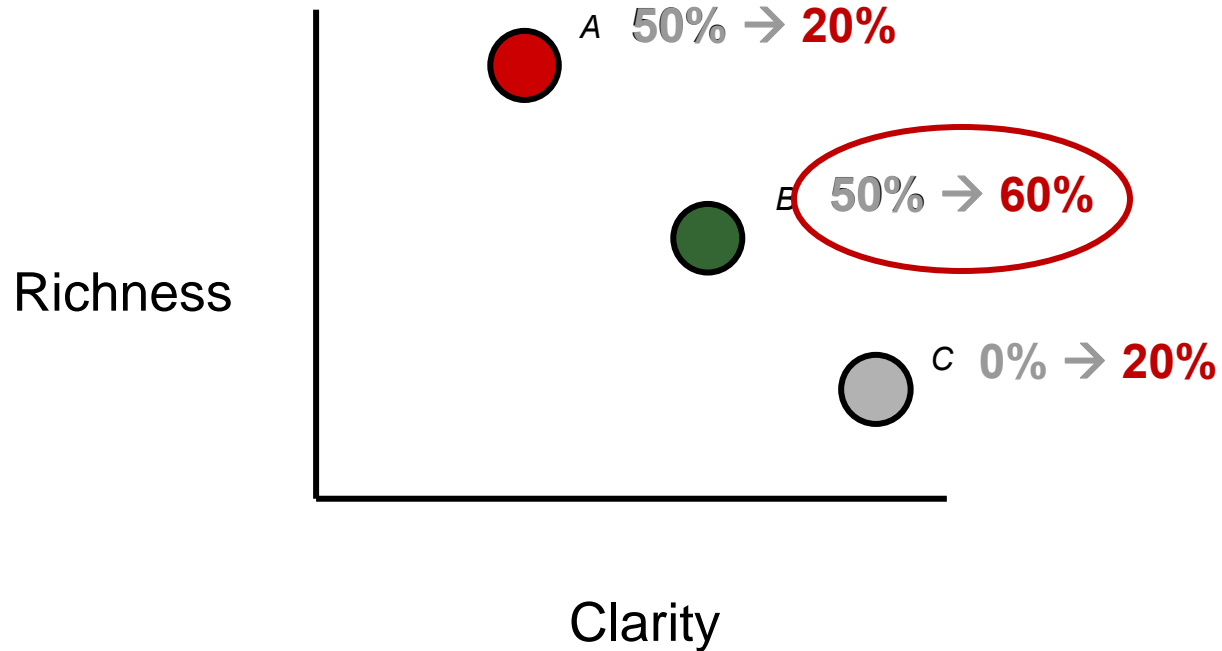
Framing (classic example)

- **Selective influence over the consumer's perception of the meanings attributed to words, images, and products. Limiting mental representations, interpretations, and simplifications of focus. Equivalence frames represent logically equivalent alternatives portrayed in different ways. Emphasis frames focus on a subset of relevant perspectives.**
- **Prototypical Example (from Tversky and Kahneman, *Science*, 1981)**
 - Between groups
 - Outbreak of an unusual flu this season. Expected that 600 people will die if untreated.
 - A: 200 people will be saved
 - B: 1/3 probability that 600 are saved, 2/3 that no one is saved
 - vs.
 - C: 400 people will die.
 - D: 1/3 probability that no one will die, 2/3 that 600 will die.
 - A > B by 72%, but D > C by 78%
 - Within group?



Framing through context

(perceptual map now in perceptual dimensions)



Framing example

Regular

\$3.55⁹

Mid-grade

\$3.89⁹

Super

\$3.99⁹

Octane
87

Octane
89






Octane
93

Another framing example



Short

Framing by paradigms

- We see the world through accepted “paradigms.”
- We all have “referent bins” in memory.
- Fracture the paradigm
 - Buy music in albums on hard media (records, tapes, CDs) 
 - The web is all about information.   
 - Cellphone service providers need contracts to get a return on upfront subsidies. 

Cadillac

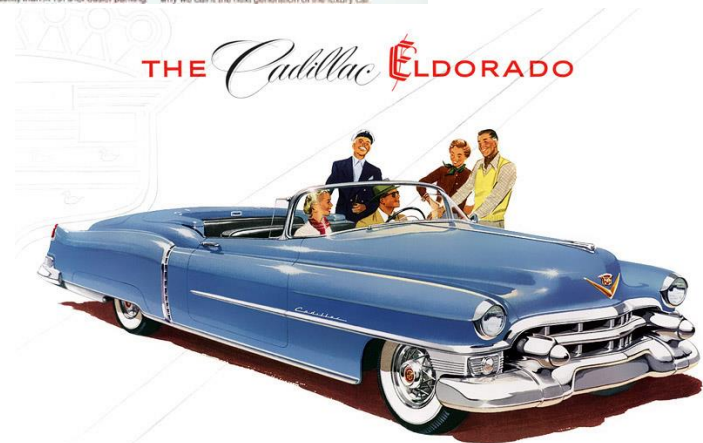
- Perceived as luxury
- Your parents' car
- Loyal customers are literally dying off
- How do you reframe the referent bin?



Leave it to Cadillac to lead the way.

...with the next generation of the luxury car. Fleetwood Brougham. Coupe deVille. Sedan deVille. Designed and engineered for a changing world. Retaining the things that have made Cadillac America's most popular luxury car. ... Roominess. Elegance. Security. And adding to it with more maneuverability than in 1976 for easier parking.

More rear legroom and headroom in the DeVilles. More extensive measures to help fight corrosion. Even more comfort and convenience. Small wonder Cadillac 1977 has received such fantastic acceptance in the marketplace. But you must drive it. You must drive it to know why we call it the next generation of the luxury car.



THE Cadillac ELDERADO

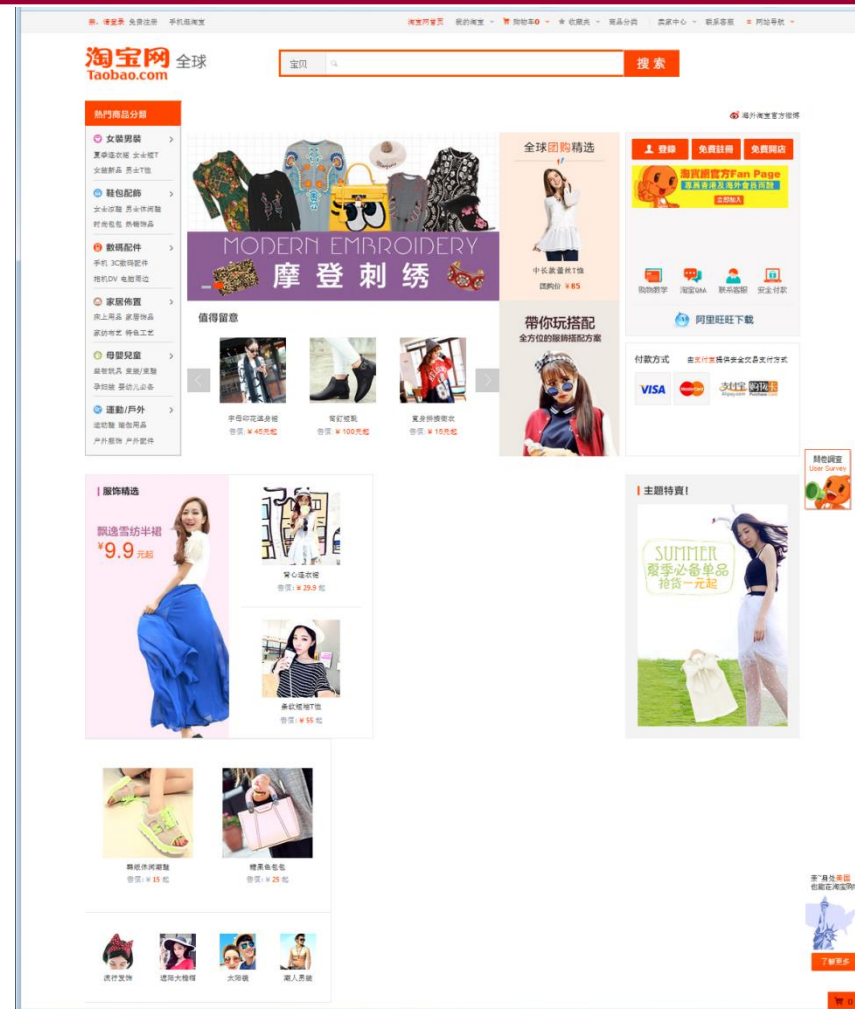


Honda's frame

- **Goal: get R&D experience and consumer feedback**
 - What size robot do you make?
 - How do you control the image?
 - What tasks do you assign to the robot?

Alibaba Taobao

- Taobao (eBay folded)
- But, unlike in the US
 - culture of bargaining
 - personal relationships are important to assess trust (affect and cognition)
 - crowded vs. sparse feel
- Designed for cultural frames
 - mimic Chinese department store
 - Taobao sellers register with details
 - separate reputation as seller from reputation as buyer
 - Alipay escrow service to eliminate settlement risk
 - embedded IM service to facilitate bargaining



Memory schemata drive framing

Schema (plural is schemata)

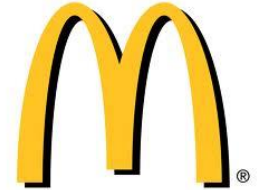
- organized pattern of thought or behavior
- mental structure encapsulates experience and ideas
- system to organize and process new information

Implications

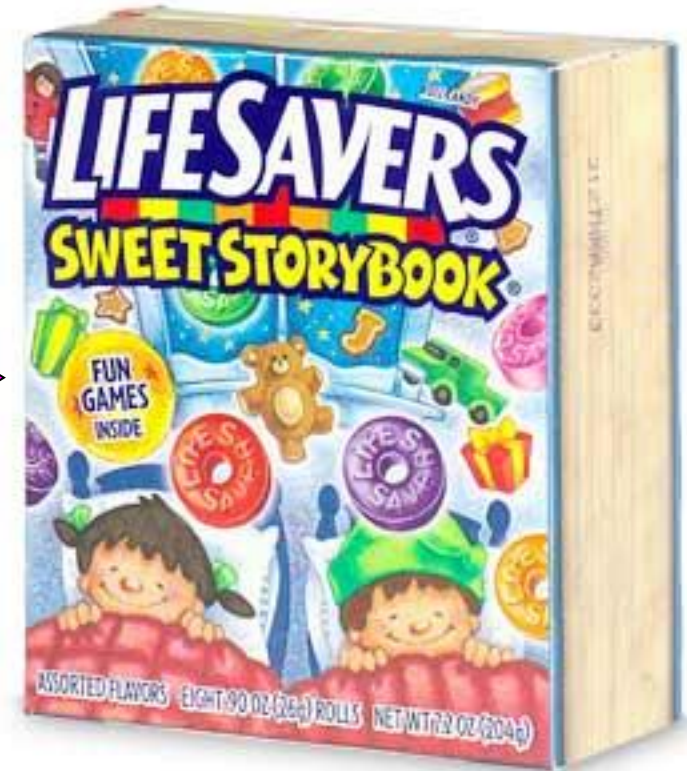
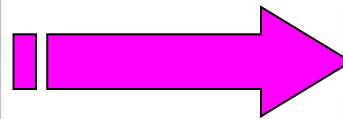
- influence attention and accept new information
- consumers notice features that fit their schemata
- consumers reorganize information to fit schemata

Relationship to Framing

- framing draws on existing schema
- new frames force schemata reorganization



What schemata are consistent with the Lifesavers brand?



Lifesavers images © WM. Wrigley Jr. Company. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

Memory schemata



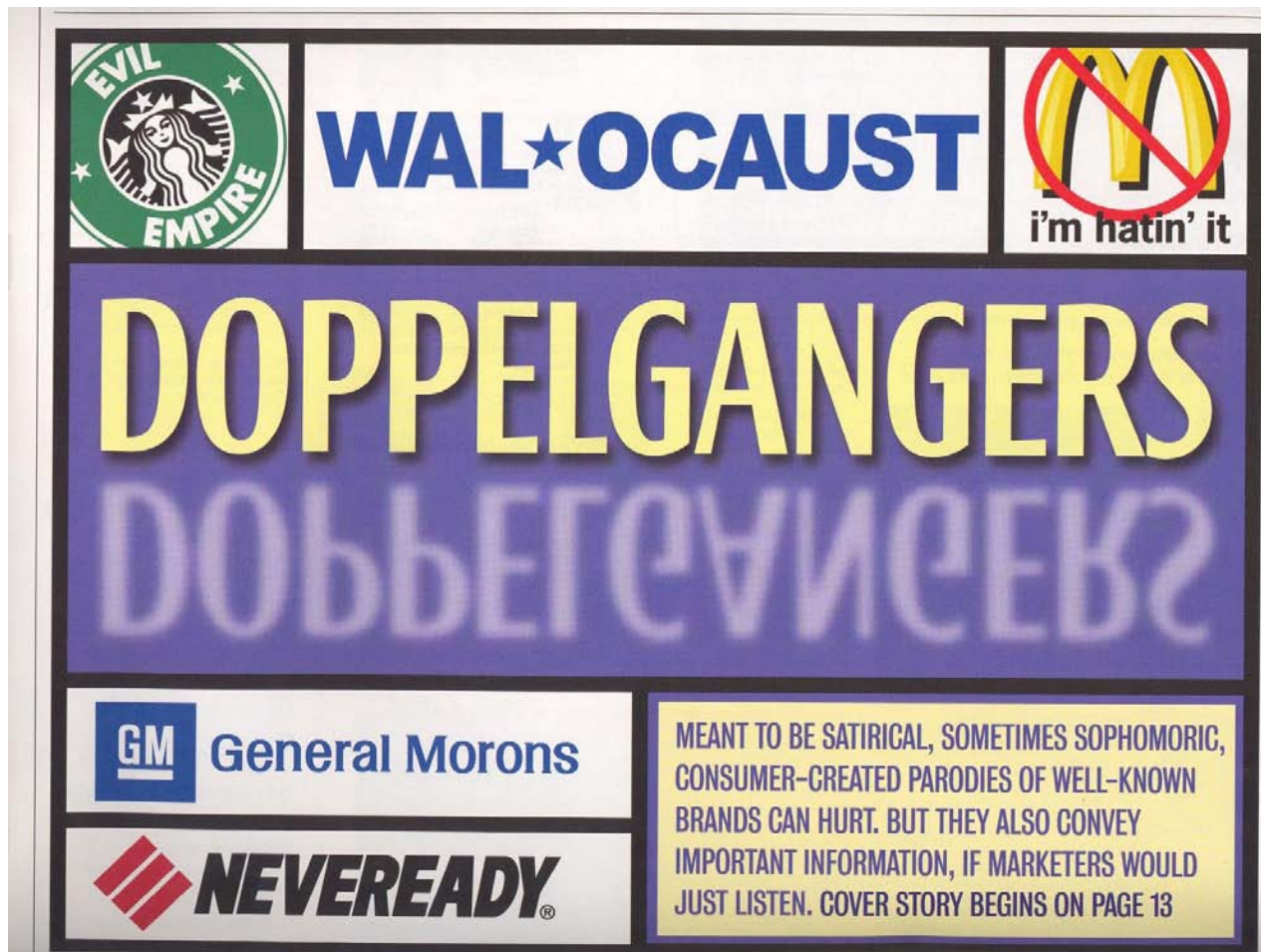
Examples of schema explanations

- **Snapple – Wendy**
- **Tylenol – poisoning**
 - Cyanide in capsules
 - But not due to any action by Johnson & Johnson
 - Off the market for a year
- **Audi 5000 – sudden acceleration**
 - Sales dropped 81% after a 60 Minutes' video aired
 - Subsequently vindicated, but damage was done
 - More recently Toyota had similar issues

Safety seal is now mandated as a response to the incident.



Rumors



Doppelganger images of well-known brands © unknown. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

Urban myths can kill sales

- Eating effervescent candy and coke



Images © Pop Rocks; Coca-Cola. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

- Spider eggs at K-mart



Images © unknown. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

P&G Satanism rumor

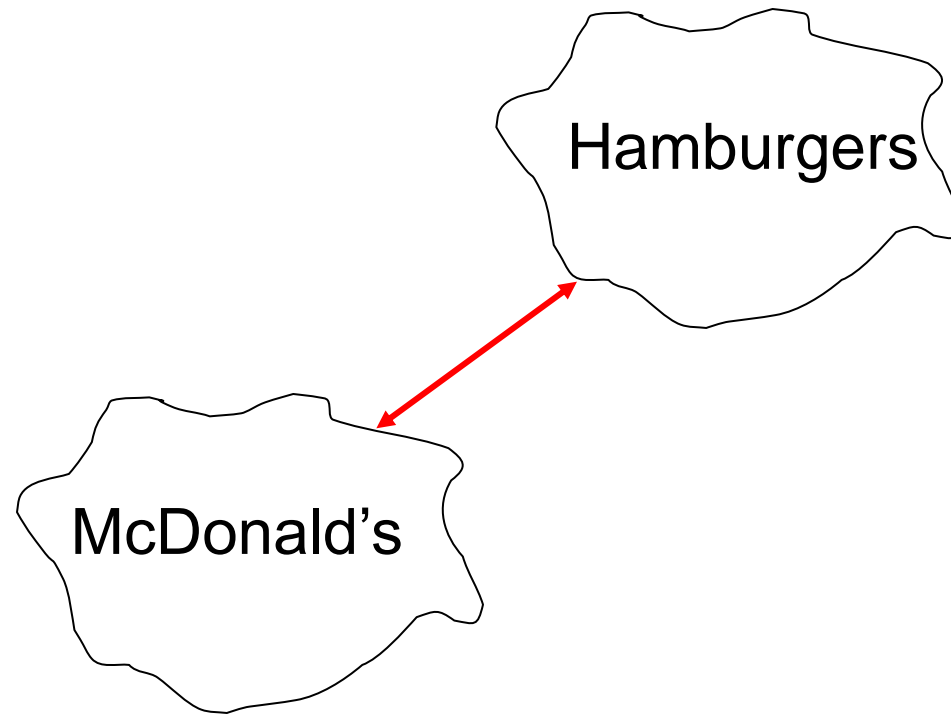
- Logo, appearance on a major talk show



Rumors affect sales

- Choi, Candice. "**Food Safety Scare Puts Dent in McDonald's Sales.**" *Boston Globe (AP)*, Aug. 9, 2015.

Rumor: McDonald's hamburgers are made from worm meat.



Schemata



Framing by cultural norms

- **Coca-Cola's price discrimination**
 - at the supermarket
 - at MIT Sloan (machine, 100 Main St.)
 - at the Bayside Expo
 - at an exclusive bar (e.g., Alibi, Grill 23)
 - on the beach at a resort
- **Why not change the price automatically based on the outside temperature?**



Images © Coca-Cola, Inc. All rights reserved.
This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

Pricing norms are critical to resource conservation.



STREET PRICES

SHOULD PARKING METERS cost \$17 an hour? Donald Shoup thinks that's fine—if the rate drops when demand falls. The University of California at Los Angeles urban planning prof wants to end wasteful trolling for empty meters by charging market prices on smart meters. "It's like Goldilocks," he says. "The price is too low if there are no spaces open, and too high if there are a lot of spaces open." **Drivers should pay up at peak times and get a break when demand ebbs, he argues.** Chicago, where an hour in a downtown lot can cost \$17, is studying the idea. And in February, Redwood City, Calif., will adjust meter rates—every three months—to assure 15% vacancies. —Joseph Weber

- Pay more to use a road during rush hour?
- Pay more for more data?
- Carbon footprint?

More framing examples

- **Luxury boxes**
 - expensive and further from field, but
 - sushi, special meals
 - special elevator
- **You can charge more in a movie theater for popcorn – economic argument of price discrimination.**
- **But why are the sodas and popcorn so large?**

What do you notice about the prices?

United States | Gift Cards | Email Signup | Login/Sign Up | Call 866-870-1743

Reebok SHOP | Search shoes, apparel, accessories... | Free Shipping & Returns (excludes custom shoes) | 0 \$0.00 | Checkout

Men Women Boys Girls Sports Classics | Design Your Own | ZIGLITE SMOOTH-FLEX REALFLEX

Home | Classic Leather

FREE Shipping & Returns (Excludes Custom shoes)

Classic Leather
Men Casual
★★★★★ Read all 32 reviews | Submit a review

\$67.99 Qty 1 | Add To Cart | Add to Wish List

Color: White/White/Lt Grey (9771)

7	7.5	8	9
9.5	10	11	12
13			

View Sizing Guide

OR DESIGN YOUR OWN | Start Designing

You May Also Like

- BB4600 Mid \$54.99
- BB4600 Mid \$59.99
- Classic Nylon \$54.99
- Ex-O-Fit Hi Clean Logo ~~\$79.99~~ \$74.99
- Ex-O-Fit Hi Clean Logo \$74.99

Images © Reebok. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

A bit more upscale

OFF BALANCE

THE NEW WAL-MART *By Bruce McCall*

...Wal-Mart hopes to prove it can reach affluent consumers... -AP, Mar. 22, 2006



BESPOKE BOND ST. MEN'S SUITS

FREE vest & 2 pr. pants to 1st 500 Customers!

From **2,999⁹⁷**

SAT-SUN ONLY

ASST. MGR SPECIAL



From Russia, With Markdowns

Fabergé EGG In Handy Blister Pak

All sizes & colors

99,999⁸⁸ ea.



😊 ROLLEBACK

Kentucky Derby-Type THOROBRED RACEHORSE

Includes 1-Yr. Oat Supply

Was 4,299,999.38

3,999,999⁸⁸



OVERSTOCK BLOWOUT!

Calling All Budget-Minded Execs

Ready-to-Go 2006 8-pass. LEARJET*

*Pilot not incl.

Wal-Mart's Price

2 for 15,999,999⁹⁸

Don't Wait!

Image © Bruce McCall / Conde Nast. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

What is the reference price?

L.L.Bean

Enter item # or keyword

Search

100% GUARANTEE
NO FINE PRINT | NO RESTRICTIONS Learn more

Shopping Bag

MEN'S WOMEN'S KIDS' FOOTWEAR OUTDOOR GEAR HUNTING & FISHING LUGGAGE HOME SALE

Earn \$10 Coupons with the L.L.Bean Visa Card

What's New

Shop Holiday Gifts

Outerwear Guide

100 Years

L.L.Bean® Visa® Card

L.L.Bean SIGNATURE

L.L.Bean > Sale > Women's > Outerwear

Women's (519)

- Shirts (120)
- Skirts & Dresses (28)
- Pants & Shorts (54)
- Swimwear & Cover-Ups (23)
- Footwear (97)
- Sweaters & Sweatshirts (59)
- Outerwear (82)
 - Jackets & Coats (68)
 - Vests (12)
 - Outerwear Pants (2)
- Sleepwear & Underwear (13)
- Blazers (21)
- Accessories (25)

Filter Results (reset all)

Warmth Rating

- Warm (41)
- Warmer (18)
- Warmest (10)
- Uninsulated (6)
- Blazers/Indoor Jackets (1)

Features

- Water-Resistant (43)
- Wind-Resistant (16)
- Waterproof (15)
- Windproof (27)
- Lined (15)
- Easy-Care (16)
- Insulated (25)

Insulation Type

- Uninsulated (44)
- Down (14)
- PrimaLoft (6)
- Thinsulate (8)
- Synthetic (4)

Fabric

- Wool (8)
- Cotton (2)
- Gore-Tex (2)
- Cotton Blend (1)
- Fleece (17)
- Synthetic (34)
- Corduroy (4)

Women's Outerwear on Sale (82)

View: [Grid] [List]

Jackets & Coats (68)

View all



QUICK VIEW



Women's Corduroy Belted Trench

~~\$99~~ \$39.99

Save \$59.01

★★★★★

Add to Compare



QUICK VIEW



Women's Ascent Jacket with Gore-Tex

~~\$299~~ \$149

Save \$150

★★★★★

Add to Compare



QUICK VIEW



Women's Goose Down Jacket

~~\$79-\$88~~ \$59.99-\$69.99

Save \$19.01

★★★★★

Add to Compare



QUICK VIEW



Women's Bean's Boiled Wool Jacket

~~\$149-\$159~~ \$104-\$109

Save up to \$50

★★★★★

Add to Compare



QUICK VIEW



Baxter State Parka

~~\$229-\$249~~ \$159-\$164

Save up to \$85

★★★★★

Add to Compare



QUICK VIEW



Harvest Wool Peacoat, Textured

~~\$159~~ \$69.99

Save \$89.01

★★★★★

Add to Compare



QUICK VIEW



Adirondack Barn Coat, Corduroy Flannel-Lined

~~\$99-\$109~~ \$89.99-\$99.99

Save \$9.01

★★★★★

Add to Compare



QUICK VIEW



Women's Wind Challenger Fleece, Hooded Jacket

~~\$99-\$109~~ \$49.99-\$54.99

Save up to \$54.01

★★★★★

Add to Compare

Viewing 1 - 8 of 68

© L.L. Bean. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

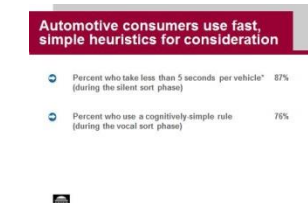
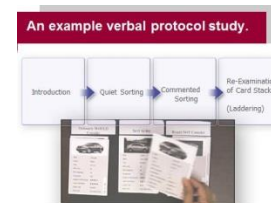
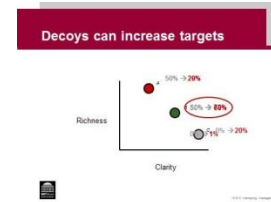


Summary

- **Framing**
 - select mental focus
 - change mental representations
 - switch among equivalence frames
 - context is important
- **Schema**
 - consumer's mental structure
 - influence attention and emotion
 - reaction to product and communication depends on existing schemata
 - path by which much framing occurs

The tip of the iceberg

- **Formal models of framing**
 - prospect theory – gains vs. losses
 - mental accounting – separate “mental accounts” for gains and losses
- **Ecological rationality affects marketing**
 - free implies low value
 - anchoring and adjustment
 - decoy effect can increase share
 - conjunctive fallacy helps advertising
- **Cognitive simplicity**
 - heuristic decision and search rules
 - primarily in consideration decisions



Behavioral decision theory (cognitive simplicity) examples

- **We are unlikely to have time in class to cover all of behavioral decision theory, but if you are interested, many theories are covered in 15.847, Consumer Behavior.**
- **Framing and schemata are relevant in 15.846, Branding.**
- **The following marketing examples illustrate some of the established results from behavioral decision theory. I've provided them in the handouts for students who are interested.**

Paradigm: If it's free it may not be high quality.

EvanstonReview



Trial

Reg. Price **28.1%**

50% discount **29.3%**

Free trial **70.6%**

Free + coupon **76.2%**

Control

Free trial lowers repeat purchase

EvanstonReview



Recall BBVA iPad
give-away reduced
some funnel measures.

	Trial	Repeat	Total
Reg. Price	28.1%	32.4%	9.1%
50% discount	29.3%	44.1%	12.9%
Free trial	70.6%	2.8%	2.0%
Free + coupon	76.2%	18.8%	14.3%
Control			9%

Anchor and adjust



- If the Vers Shellcase were offered at a price equal to the last two digits of your SS#, would you buy it?
- How much would you be willing to pay for the Vers Shellcase?
- When tested on students, those with higher SS# digits were willing to pay more!
- But does not replicate well.

© Vers Shellcase. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

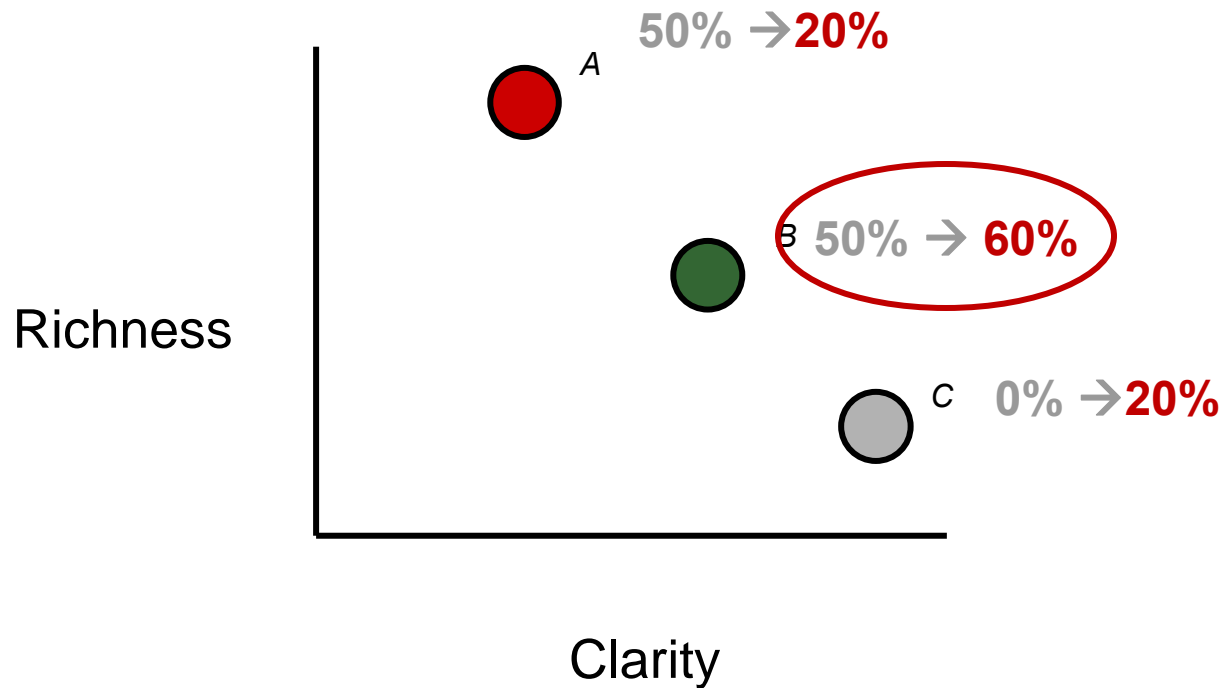
A case and stand in one, the Vers Shellcase brings a warm organic aesthetic to the iPad with steel-reinforced, hand-crafted hardwood or bamboo.

TABLE I
AVERAGE STATED WILLINGNESS-TO-PAY SORTED BY QUINTILE OF THE SAMPLE'S SOCIAL SECURITY NUMBER DISTRIBUTION

Quintile of SS# distribution	Cordless trackball	Cordless keyboard	Average wine	Rare wine	Design book	Belgian chocolates
1	\$ 8.64	\$16.09	\$ 8.64	\$11.73	\$12.82	\$ 9.55
2	\$11.82	\$26.82	\$14.45	\$22.45	\$16.18	\$10.64
3	\$13.45	\$29.27	\$12.55	\$18.09	\$15.82	\$12.45
4	\$21.18	\$34.55	\$15.45	\$24.55	\$19.27	\$13.27
5	\$26.18	\$55.64	\$27.91	\$37.55	\$30.00	\$20.64
Correlations	.415	.516	0.328	.328	0.319	.419
	$p = .0015$	$p < .0001$	$p = .014$	$p = .0153$	$p = .0172$	$p = .0013$

- (Ariely, D., et al. "Coherent arbitrariness: Stable demand curves without stable preferences." *Quarterly Journal of Economics*, 2003, 118, pp. 73-105.)

Decoys can increase targets



Recent research clarifies the decoy effect

Economist.com

OPINION
WORLD
BUSINESS
FINANCE & ECONOMICS
SCIENCE & TECHNOLOGY
PEOPLE
BOOKS & ARTS
MARKETS & DATA
DIVERSIONS

SUBSCRIPTIONS

Welcome to
The Economist Subscription Centre

Pick your country (If you are subscribing to the print edition, this is the country that your print copies will be delivered to)

United States of America

Pick the type of subscription you want to buy or renew.

Economist.com subscription - US\$ 59.00
One-year subscription to Economist.com. Includes online access to all articles from *The Economist* since 1997.

Print subscription - US\$ 125.00
One-year subscription to the print edition of *The Economist*.

Print & instant free web subscription - US\$ 125.00
One-year subscription to the print edition of *The Economist* and immediate online access.

Continue

Widely reported example, is actually from a hypothetical experiment and does not replicate well.

Direct Replication			
N=2,003	Web	Print	Web/Print
2 choice	75%		25%
3 choice	69%	18%	21%

Prototypical counterexample:



Lesson: Stay tuned. This research is at a turning point. Works well for verbal (web-based) but not necessarily visual (shelf-based) stimuli. Although in the “popular press,” effects are more subtle.

Preference for the complex, the conjunctive fallacy



Pantene makes your hair beautiful.

Pantene makes your hair healthy,
shiny and beautiful.

What is more probable?
HTHH or THTHH

Consumers often use simple decision rules

“I will only consider GPSs with small size, color displays, that float”



Small Size



Color Display



Floats

Images © Garmin. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <http://ocw.mit.edu/help/faq-fair-use/>.

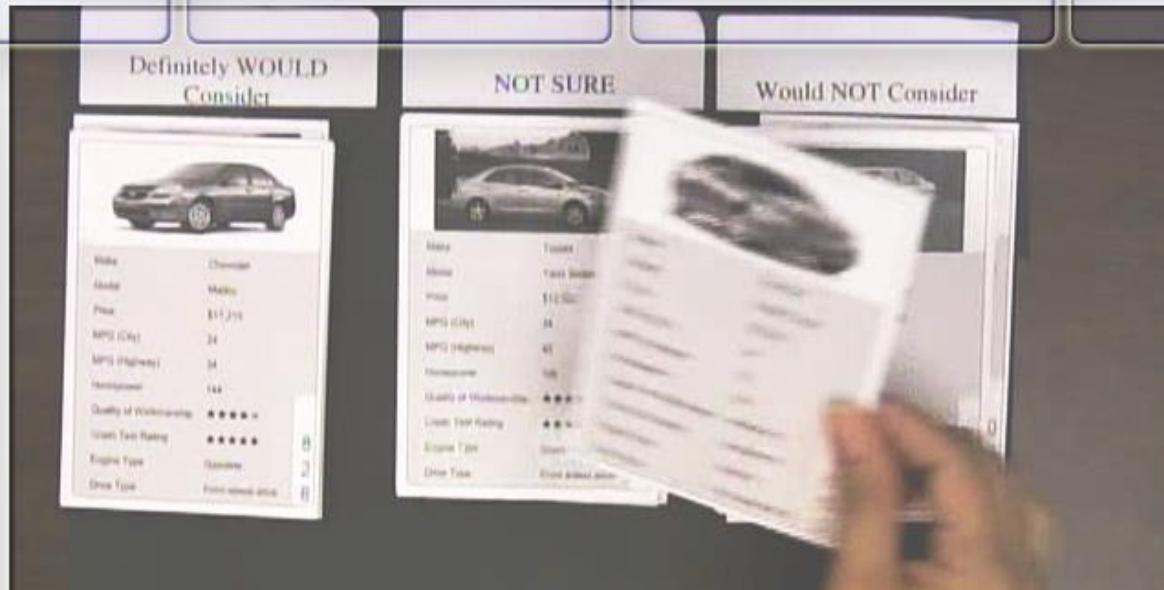
An example verbal protocol study.

Introduction

Quiet Sorting

Commented
Sorting

Re-Examination
of Card Stacks
(Laddering)



Automotive consumers use fast, simple heuristics for consideration

- ➔ **Percent who take less than 5 seconds per vehicle* 87%**
(during the silent sort phase)
- ➔ **Percent who use a cognitively-simple rule 76%**
(during the vocal sort phase)

MIT OpenCourseWare
<http://ocw.mit.edu>

15.810 Marketing Management: Analytics, Frameworks, and Applications
Fall 2015

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.