Measuring preferences is central to market research:

- Do consumers prefer glass bottles or plastic bottles?
- Would consumers pay 35 cents more for a plastic bottle?
- What is "more important" in yogurt: taste or texture?
- What proportion of consumers would be willing to have the weight of their laptop increased by 50% in order to double the processing speed?
- How much more would a person be willing to pay for an acrylic aquariums if it were scratch proof ? If it were algae resistant? If it were 25% lighter? 40% stronger? If it had curved corners?
- Would the customer's value of this feature justify the cost of producing it?

Consumer research

Examples from your experience?

Many different methods for measuring values/preferences.

- **choice**
- **graded choice**
- **ranking**
- **matching**
- **pricing**
- **rating**
- **purchase likelihood**

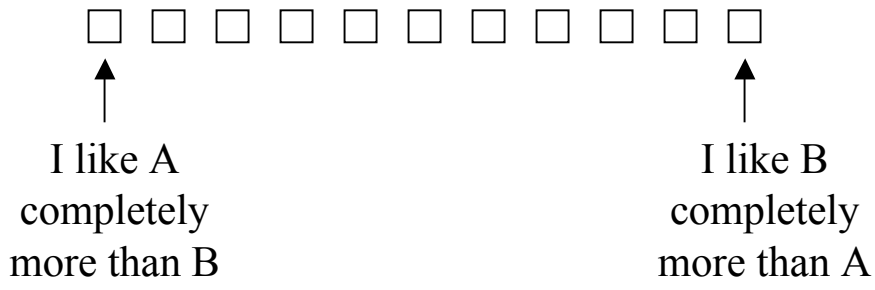
Choice

○	○
Brand: *Sunbeam* Price: $75 Speed: 4 minutes Self cleaning: Yes Auto shut off: No	Brand: *Toastmaster* Price: $95 Speed: 4 minutes Self cleaning: No Auto shut off: Yes

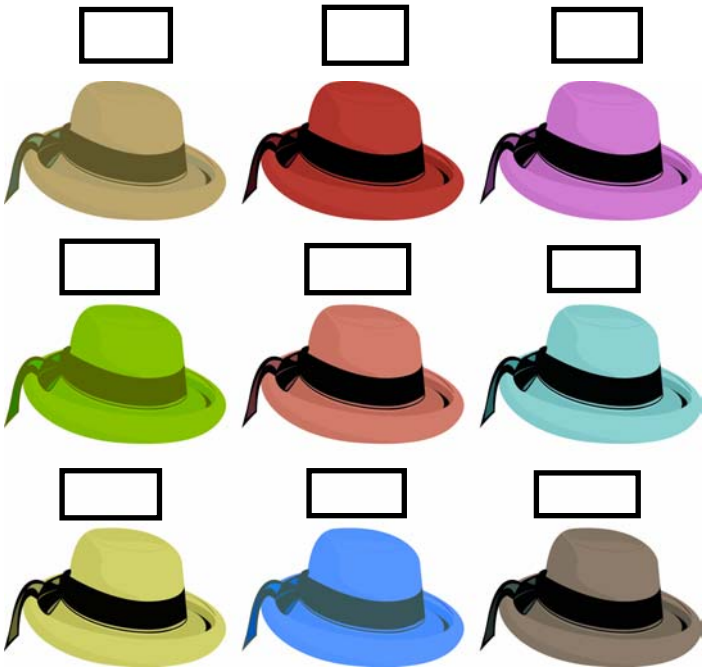
Graded Choice

Click on a square to tell us how much you like one camera compared to the other.

Features	**Camera A**	**Camera B**
Price	$35.00	$25.00
Picture Quality	Option A	Option B
Picture Taking	2 Step	1 Step
Styling Covers	Can be changed	Permanent



Ranking

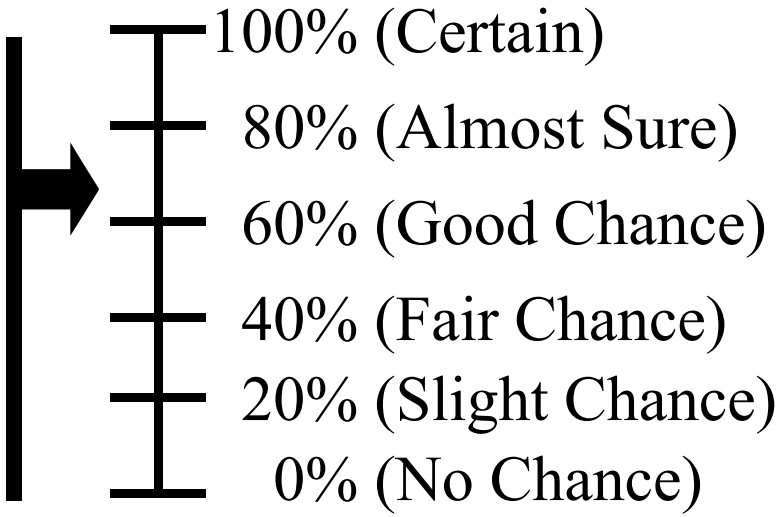


Matching

	Square feet	Cost
Condo X:	500	$350,000
Condo Y:	1100	$_____

Likelihood of Purchase

From what you now know about the *Acura*, what is the probability that you would purchase it within the next 3 years?



Pricing

(1) What is the most you would be willing to pay to save the Hawaiian subspecies of ***humpback whales*** from extinction?

$ _____

(2) What is the most you would be willing to pay to save the Hawaiian subspecies of ***monk seals*** from extinction?

$ _____

Pricing

1. What is the most you would be willing to pay for **12** rolls of *Charmin* toilet paper?

$ _____

2. What is the most you would be willing to pay for **4** rolls of *Charmin* toilet paper?

$ _____

Which is the "best" method?

Criteria of goodness

- efficiency
- ease of responding
- depth of engagement
- absence of "demand effects"
- ecological validity
- internal coherence
- sensitive to relevant factors
- *in*sensitive to *ir*relevant factors

Conjoint Analysis

- products can be broken down into attributes
- marketers want to know relative importances
- difficult to express utility functions directly
- easier to choose between products or rate them
- attribute weights can be inferred from choices,
- these inferred attribute weights can then be used to assign utilities to various products and to predict consumer preferences (& to segment markets)

Tradeoff Matrix

Years of Warrantee

Price	**one**	**two**	**three**
$11,000	**a**	**b**	**c**
$12,000	**d**	**e**	**f**
$13,000	**g**	**h**	**i**

Tradeoff Matrix

Price	Years of Warrantee: one	two	three
$11,000	6th	2nd	1st
$12,000	8th	4th	3rd
$13,000	9th	7th	5th

Tradeoff Matrix

MPG

Acceleration (0 to 60)	20	25	30
8 sec			
7 sec			
6 sec			

Tradeoff Matrix

Acceleration (0 to 60) \ MPG	**20**	**25**	**30**
8 sec	9	8	7
7 sec	6	5	4
6 sec	3	2	1

Full Profile Rating of Potential Dates

Alan

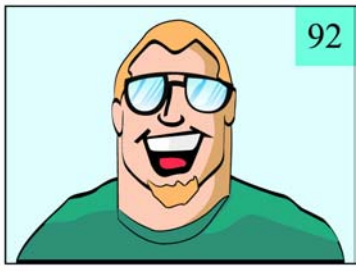
SAT: 1300

No Accent

Bob

SAT: 1400

British Accent



Chuck

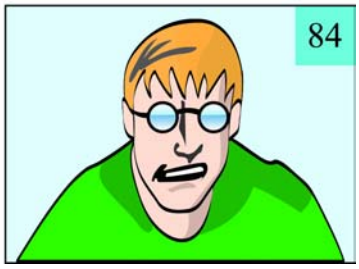
SAT: 1200

No Accent

David

SAT: 1100

British Accent



Conjoint Analysis: conceptual & operational problems

- Sometimes difficult to decompose products into more elementary attributes
- The task is not "ecologically valid"
- The attribute combinations are not believeable
- Task is tedious and boring
- People don’t understand what the *attributes* or attribute levels refer to (e.g.,"Total Harmonic Distortion" = "5"?)
- results are sensitive to how many attributes are used, how many levels are used, whether rating or ranking tasks are used, and a whole bunch of other things
- self explicated importance ratings can be ambiguous for continuous variables

Which is the more important attribute?

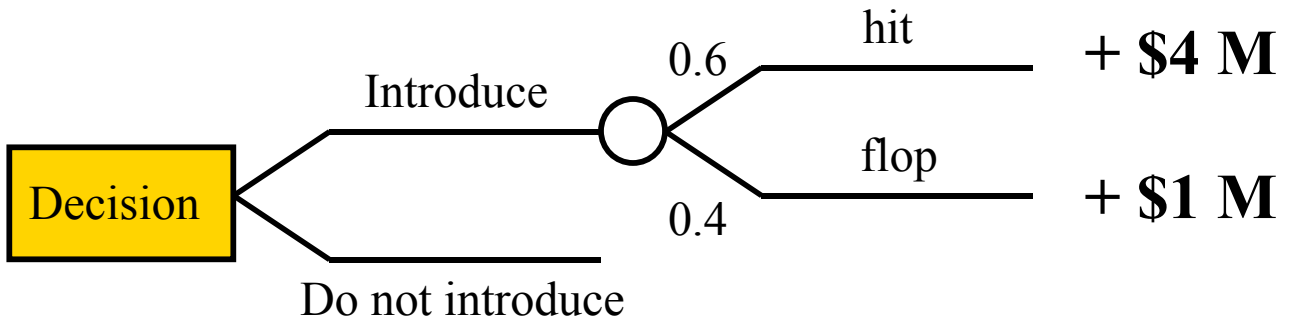
Domain:	**Attribute A**	**Attribute B**
Baseball Players	Home Runs	Batting Average
Linebackers	Speed	Intelligence
Laptops	Speed	Weight
Automobile Tires	Price	Tread Life

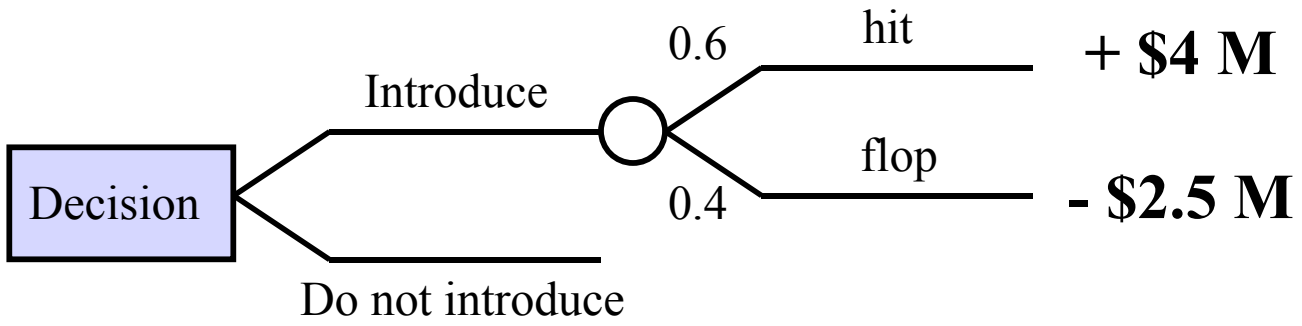
Which is more important?:
Price or Tread Life?

	Price	Tread Life
Tire X:	$130	22,000 miles
Tire Y:	$ 44	21,400 miles

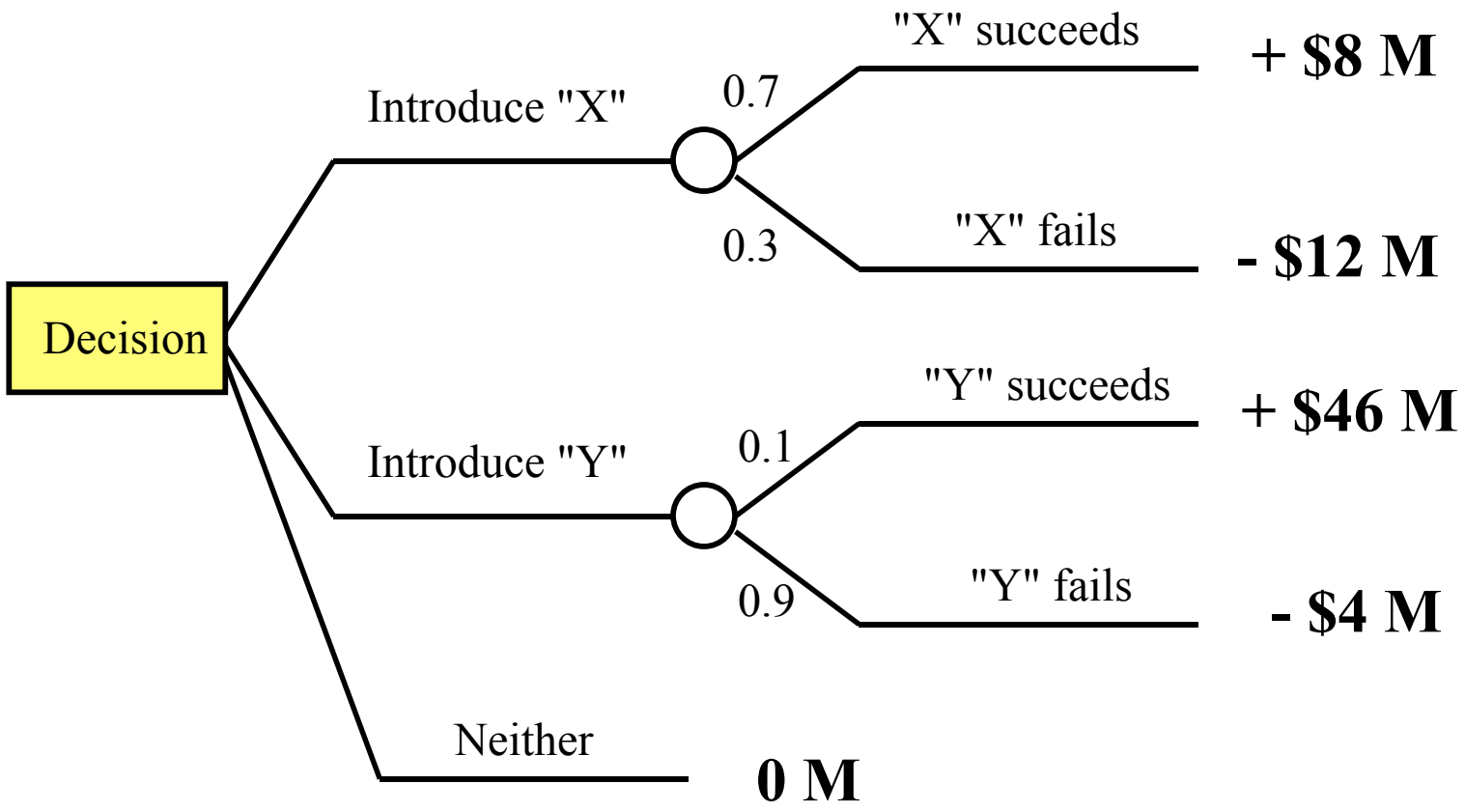
	Price	Tread Life
Tire A:	$130	22,000 miles
Tire B:	$126	3,100 miles

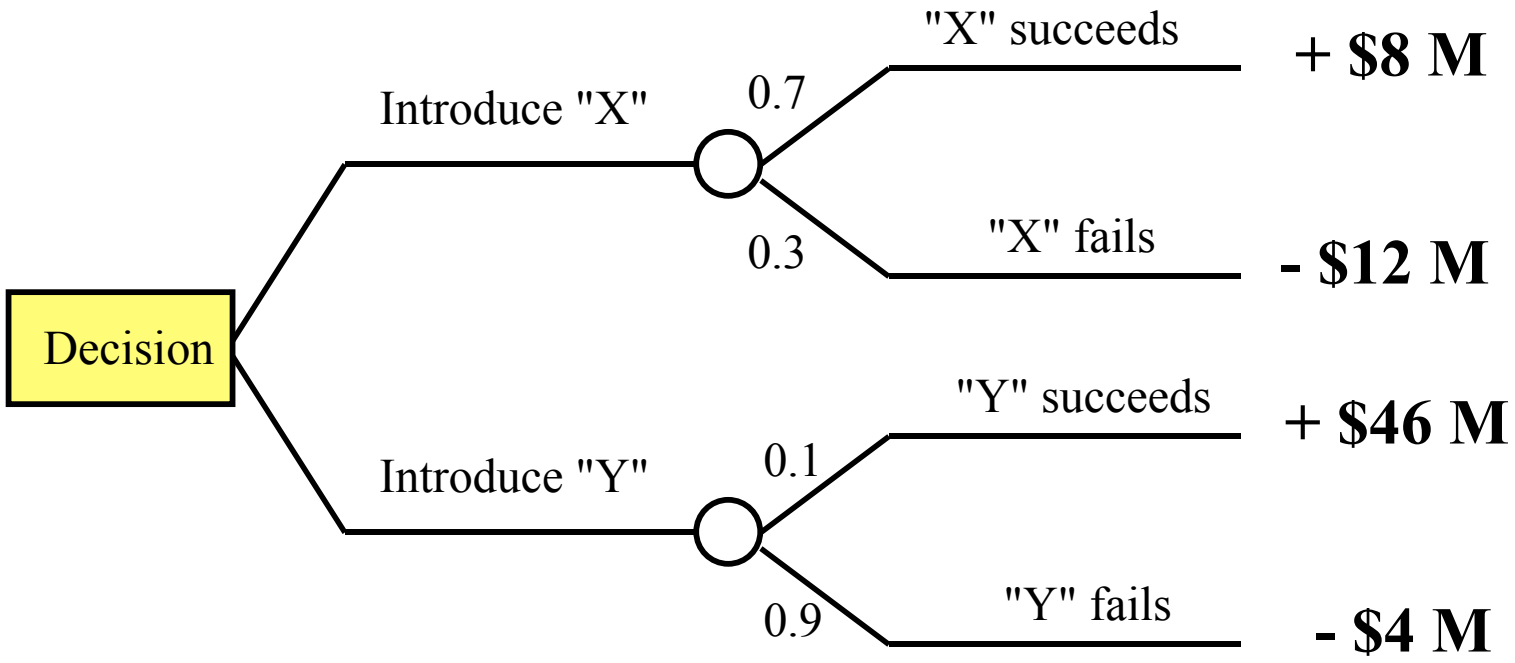
calculating expected value & expected value of perfect information (EVPI)





A more complicated example





.7 * $8 =(**5.6**) + .3 *.1 * $46 =(**1.38**) + .3 * .9 * -$4 =(**-1.08**) = **5.9**

5.9 (with research) – 2 (without research) = 3.9

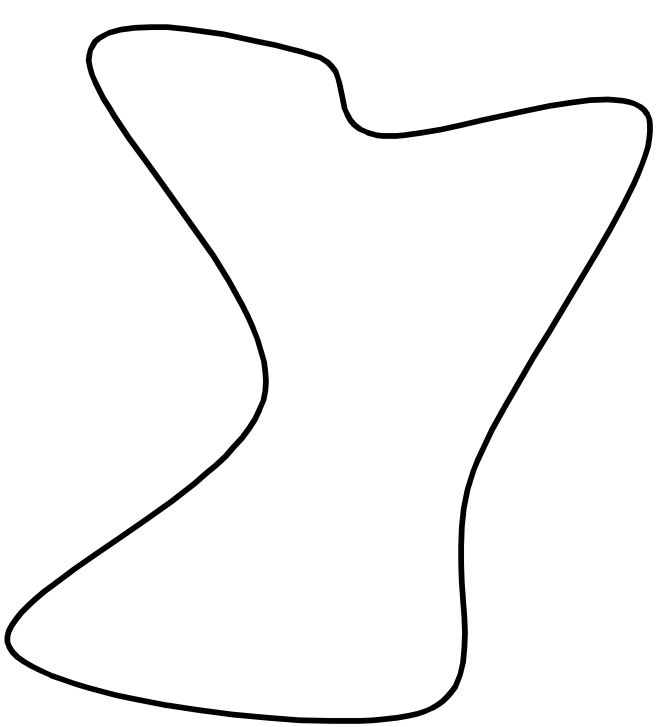
Marketing trivia

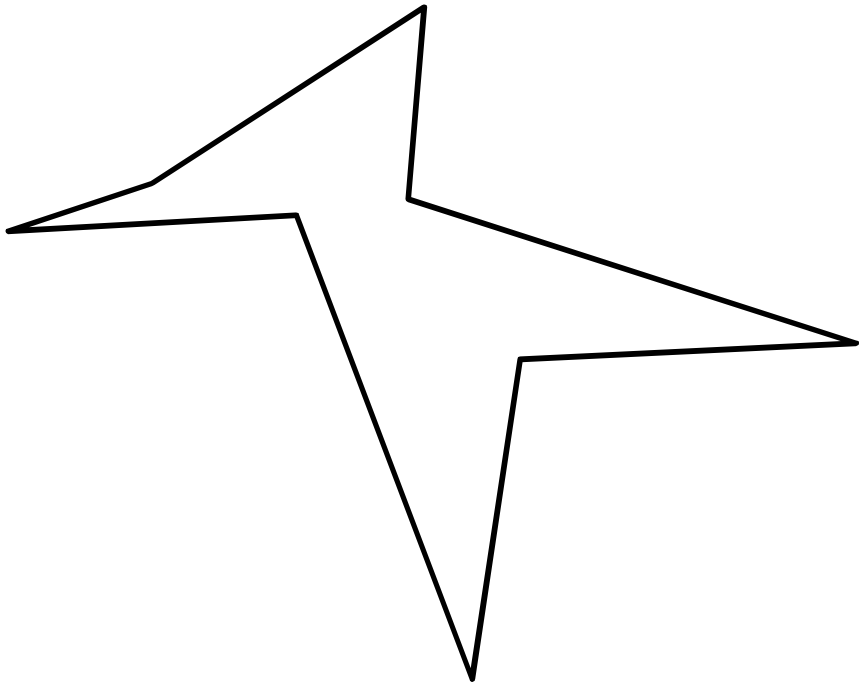
- % of males who put their pants on left leg first _____
- % of females who put their pants on left leg first _____
- % chance that if you send a husband and wife to the store to buy beer, they will return with different brands? _____ %
- % of people who agree with the statement: "Frozen pizza will never taste good, and there is nothing that technology can do about it" _____
- % of consumers who prefer their toilet paper to unwind from under the spool, rather than above it. _____
- % of people using a toothbrush that is more than 6 months old ____
- % of people who don't wet their toothbrush before brushing ____

Marketing trivia

- % of people who believe that money can buy happiness? _____
- % who spend more time thinking about money than sex _____
- % of people who re-use tinfoil _____
- % of people who re-use wrapping paper _____
- % who re-use tea bags _____
- % who meld the last sliver of soap into the new bar _____
- % who would live for a year on a deserted island for $1 mil _____
- % who would murder for $10,000,000 _____
- % of pet owners who buy Christmas presents for their pet _____

Which one is "Takiti" and which one is "Maluma"





Self explicated importance

If two new cars you were considering except for the SINGLE DIFFERENCE shown below, how important would THAT DIFFERENCE be?

A: Made in USA

B: Made in Japan

4 = Extremely (I could not accept B, even if perfect in every other way)

3 = Very (B would have to be outstanding in other ways)

2 = Somewhat (But I would not base my decision on this)

1 = Not important at all

4 Attributes: Acceleration, MPG, Price, Warrantee

How many attribute **pairs**?

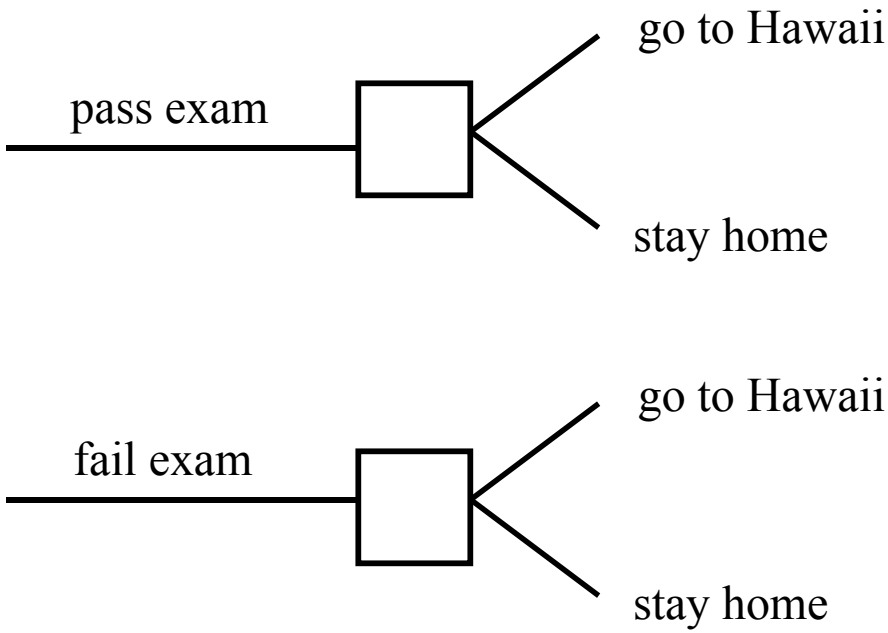
$$4(2) = 4! \div [(4-2)!]\,(2!)$$

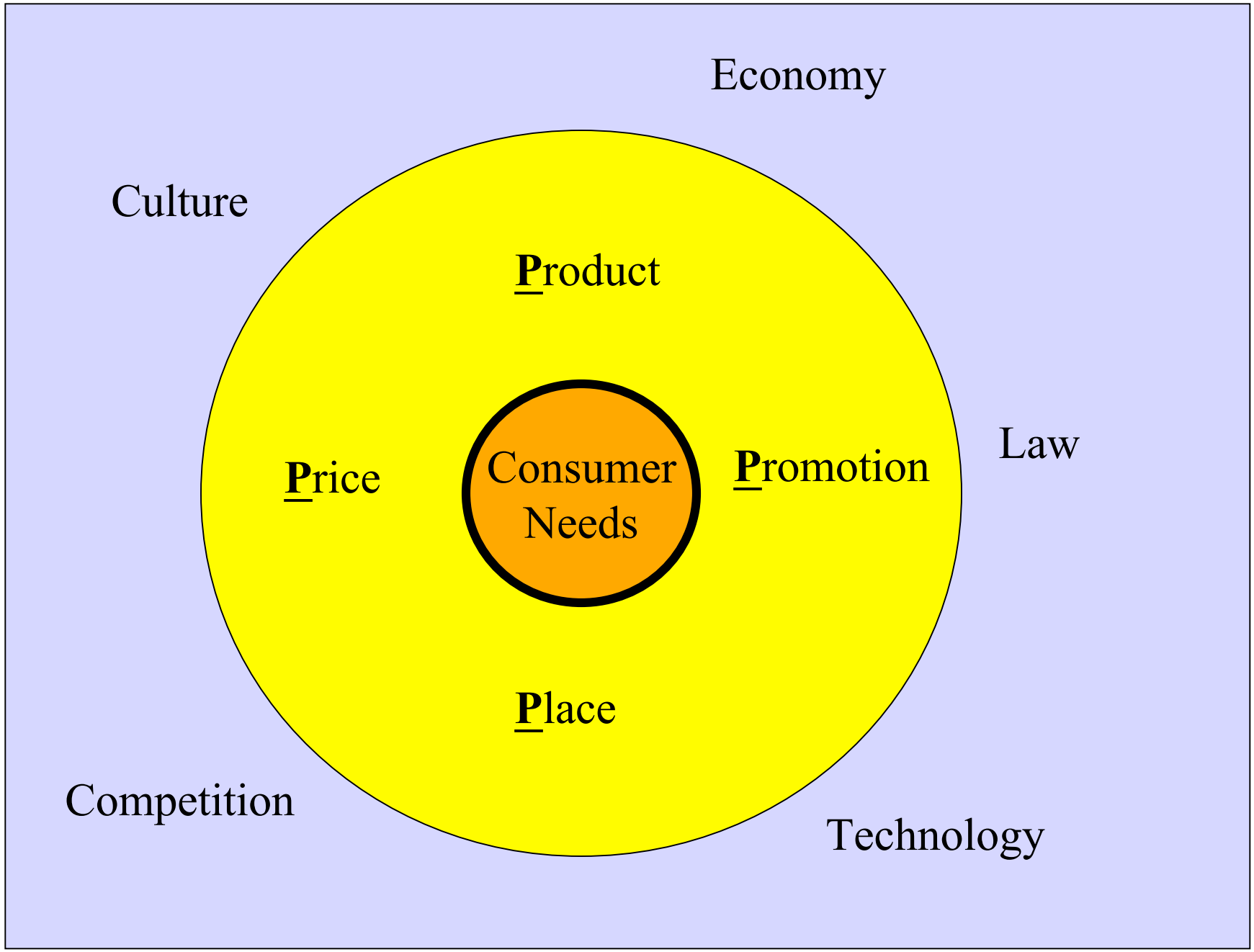
$$4(2) = \frac{4*3*2*1}{(2*1)\,(2*1)}$$

$$52(5) = 52! \div [(52-5)!]\,(5!)$$

$$52(5) = \frac{52*51*50*49*48*47*\ldots\ldots\ldots*1}{(47*\ldots\ldots\ldots*1)\;\;(5*4*3*2*1)}$$

The sure-thing principle




Economy
Culture
Product
Price
Consumer Needs
Promotion
Law
Place
Competition
Technology

Focus on two procedures: Choice & Matching

Choice

	Square feet	Cost
Condo X:	500	$350,000
Condo Y:	1100	$440,000

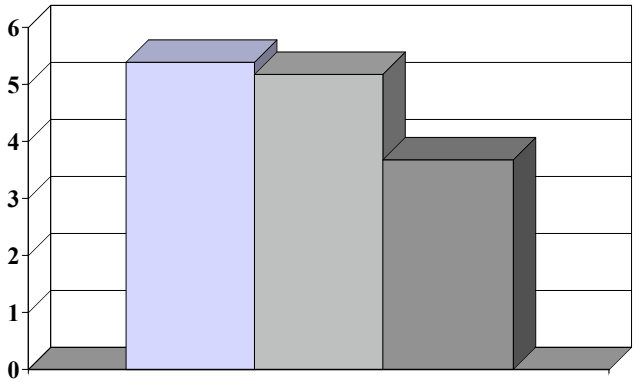
Matching

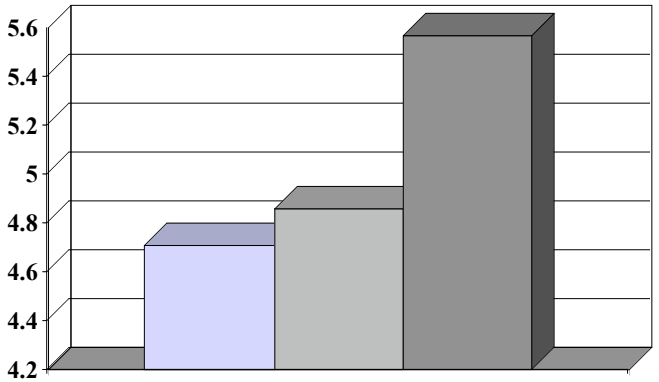
	Square feet	Cost
Condo X:	500	$350,000
Condo Y:	1100	$*410,000*

Criteria of goodness	Choice	Matching
• efficiency		X
• ease of responding	X	
• depth of engagement		X
• neutrality		X
• ecological validity	X	
• sensitivity to relevant factors	?	?

Lab Studies

Group 1	**Group 2**
"A" = RC Cola	"a" = Coke
"B" = Coke	"b" = Coke
"C" = Shaw's	"c" = Coke





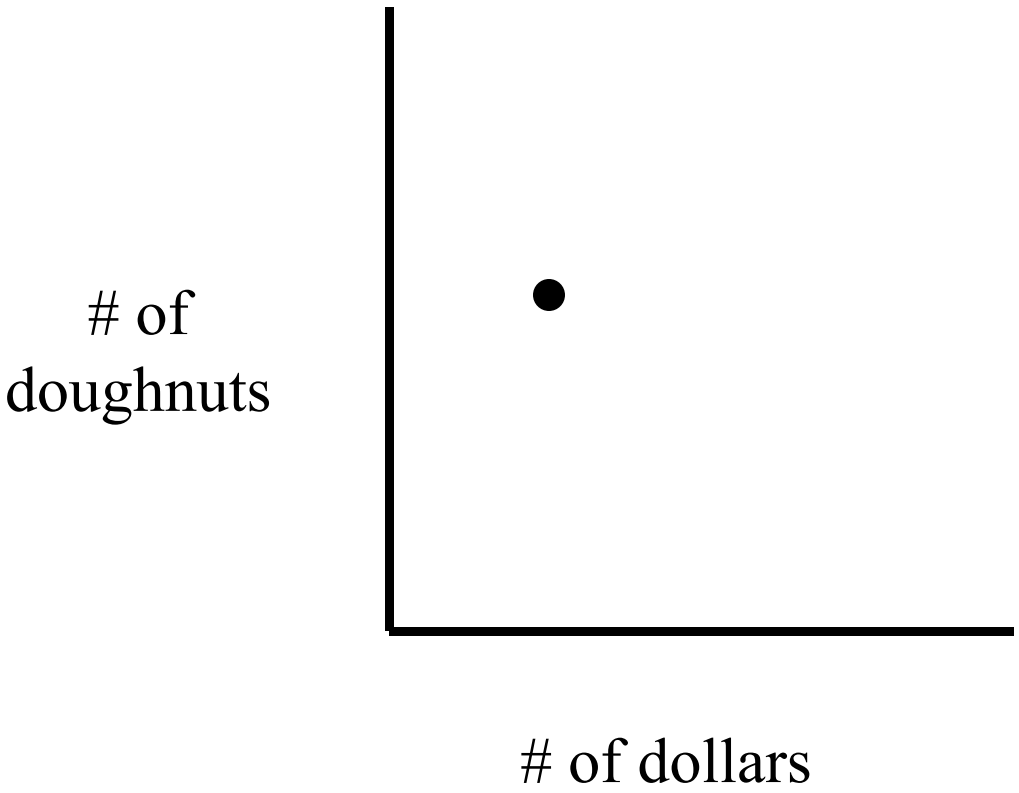
Lecture Overview

- Discuss different types of market research
- Discuss "Conjoint" Analysis

- Video on Advertising Jello

- **E**xpected **V**alue of **P**erfect **I**nformation
- Marketing Trivia Game ($$$)

Directly reporting indifference curves



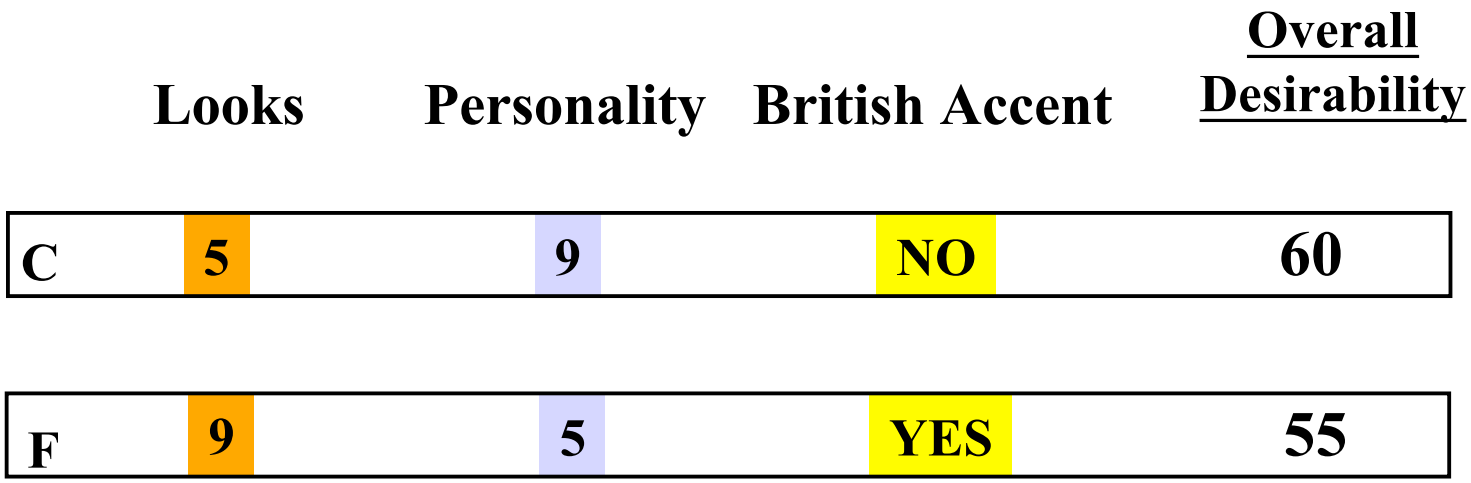
Years of Warrantee

	one	two	three
$11,000	6th	2nd	1st
$12,000	8th	4th	3rd
$13,000	9th	7th	5th

Years of Warrantee

	one	two	three	
$11,000	3	7	8	6
$12,000	1	5	6	4
$13,000	0	2	4	2
	1.33	4.67	6	

Rating potential dates



Conjoint Analysis

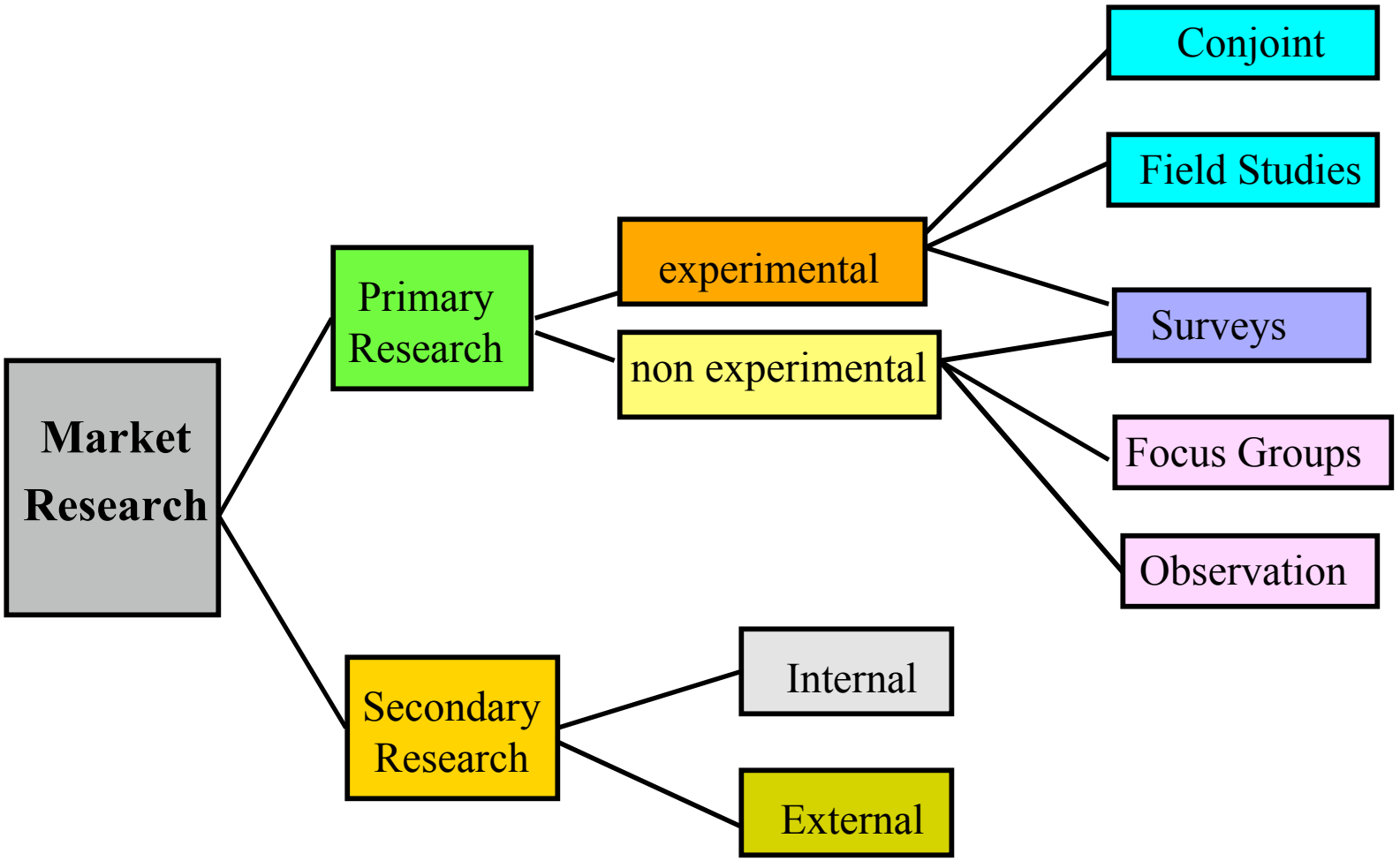
	Looks	Personality	British Accent	Overall Desirability
A	9	9	NO	80
B	9	5	NO	40
C	5	9	NO	60
D	5	5	NO	20
E	9	9	YES	95
F	9	5	YES	55
G	5	9	YES	75
H	5	5	YES	35

Who is better? Pat or Chris

	Looks	Personality	British Accent
Pat	5	8	NO
Chris	9	4	YES

Desirability = -55 + 5(looks) + 10(personality) + 15(British accent)

Types of Market Research



	Shutter	**Durability**
Camera X:	Manual	Waterproof
Camera Y:	Automatic	_____

	Price	**Durability**
Camera X:	$130	Waterproof
Camera Y:	$105	_____

Which is more important?: scratch resistance or algae resistance?

Which aquarium would you prefer?

A	**B**
Scratch proof	Not Scratch Proof
Not algae resistant	algae resistant

Strongly Prefer A 1 ….2….3….4….5….6….7 Strongly Prefer B