

## 1 ☐ Framing effects

### ✓ Limited to *valence framing*

- Frame casts the **same** critical information in either a *positive* or a *negative* light.

### ✓ Three types of framing effects (Levin et al., 1998)

- Risky choice framing (standard form)
- Attribute framing
- Goal framing

## 2 ☐ Risky choice framing

### ✓ When literature or texts describe “the” framing effect, they are usually referring to this type.

### ✓ Options differ in level of risk are presented in different ways.

- Remember - same choices will be available (between risks), but they will be framed either positively or negatively.

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## 4 ☐ Framing of the question

### ✓ Framing Effects

- Framing effects are observed when the same problem is presented either as loss or gain

## 5 ☐ Positive frame

### ✓ You start with \$0.

### ✓ Would you rather

- a) have a 80% chance of winning \$45 and a 20% chance of winning nothing

- b) with certainty win \$30
- Expected value is \$36 vs. \$30, but most Ss choose **b**.

## 6 ☐ Negative frame

✓ I give you \$45

✓ Would you rather

- a) have a 80% chance of losing nothing and a 20% chance of losing it all
- b) with certainty lose \$15
- Now most Ss choose **a**.

✓ Note - same choices in both cases, framing differs, and preference shifts.

## 7 ☐ A Medical example

✓ Problem 1:

- Program A adopted, 200 people will be saved
- Program B adopted, 1/3 prob of 600 saved, 2/3 prob no people are saved
- 72% of Ss prefer A

✓ Problem 2:

- Program A adopted, 400 people will die
- Program B adopted, 1/3 probability nobody will die, 2/3 prob. 600 will die
- 78% prefer Program B!

## 8 ☐ Why?

✓ Difference between 200 saved and 600 saved is subjectively smaller than between 400 dead and 0 dead.

✓ Framing effects are especially strong in decisions regarding life and death.

9 ☐ Another medical example

- ✓ You have been diagnosed with cancer, which treatment do you prefer:
  - **Surgery:** Of 100 people having surgery for this condition, 90 live through postop, 68 are alive 1 year later, and 34 are alive 5 years later.
  - **Radiation Therapy:** Of 100 people having radiation therapy for this condition, all live through treatment, 77 are alive 1 year later, and 22 are alive 5 years later.
  - **Only 18% chose radiation.**

10 ☐ Example continued...

- ✓ You have been diagnosed with cancer, which treatment do you prefer:
  - **Surgery:** Of 100 people having surgery for this condition, 10 die during surgery or in postop, 32 die within 1 year, and 66 die within 5 years.
  - **Radiation Therapy:** Of 100 people having radiation therapy for this condition, none die during treatment, 23 die within the first 1 year, and 78 die within 5 years .
  - **44% chose radiation**

11 ☐ Why?

- ✓ The immediate prospects of dying are emphasized in the second framing.
- ✓ The framing effect was clear for physicians, medical students, patients, and college students!
- ✓ So, what to do?
  - McNeil et al (1982) suggest that physicians offer the decisions in a graph to avoid biasing decision making using one frame or another.

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### 13 ☐ A caveat

- ✓ All of these examples involve a one-shot decision.
- ✓ When people are allowed to make a series of decisions, they are *more* optimal..
  - Example, Read et al. (1999)
    - Over 5 days, can either choose (a) 50/50 losing \$25 or winning \$40 or (b) not gamble
    - When decision is made one gamble permitted, only 32% choose to gamble on first day.
    - When allowed to choose all five gambles on first day, 50% gambled.

### 14 ☐ Making behavior more normative

- ✓ So, can we make people more normative by presenting decisions as repeated?
- ✓ Slovic et al. (1978) on seat belt use
  - Presented one group with probability of getting into an accident each time you drive.
  - Presented second group with probability of getting into an accident the 40,000 trips in a typical life span.
  - When asked to endorse seat belt laws, <10% in first group did so, 39% in second group.

### 15 ☐ Summary of risky choice framing

- ✓ People prefer certainty in the face of gains and uncertainty in the face of loss.
- ✓ People exhibit **RISK TAKING** in the face of losses and **RISK AVOIDANCE** in the face of gain.
- ✓ *Exception*
  - When subjects are asked to provide a *rationale* for their

choice, the framing effect is either reduced or eliminated (Larrick et al., 1992; Miller & Fagley, 1991).

16 ☐ Explanation of risky choice framing

- ✓ Losses loom larger than gains.
- ✓ Best explanation of risky choice framing comes from *prospect theory*.

17 ☐ Attribute framing

- ✓ Simplest form of framing
- ✓ A single attribute is the basis of an *evaluation*, but the way in which this attribute is framed is either *positive* or *negative*.
  - This differs from risky choice framing where the dependent variable is choice preference.

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19 ☐ Examples

- ✓ Beef quality (Levin & Gaeth, 1988)
  - 75% lean preferred over 25% fat.
- ✓ Basketball player shooting ability (Levin, 1987)
  - 65% success rate versus 35% failure rate.
- ✓ Automobiles (Levin et al., 1996)
  - 80% American workers employed vs. 20% non-American workers employed by company.

20 ☐ “Mirror image” statements (Hippler & Schwarz, 1986)

- ✓ The law should allow public speeches that promote racism.

– 13% agreement

✓ The law should forbid public speeches that promote racism.

– 31% disagree (meaning that 31% believe it should be allowed).

## 21 Forbid versus allow

✓ Substitution of the words "forbid" and "allow" has a predictable effect on the pattern of responses

– Note: forbid and allow are logical opposites

✓ More people are willing to "not allow" something than are willing to "forbid" it.

## 22 Explanation of attribute framing

✓ Positive framing primes or retrieves positive associations (opposite for negative framing).

– “Lean” has positive associations, “Fat” negative associations.

## 23 Goal framing

✓ Focus is on changing the rate of a behavior by stressing obtaining the positive consequence or stressing avoiding the negative consequence of this behavior.

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## 25 Examples

✓ Meyerowitz & Chaiken (1987)

– Women more likely to engage in breast self-examination (BSE) when decreased chances of detection are stressed rather than increased chances of detection.

✓ Thaler (1980)

- People more willing to forego credit card “bonuses” than to accept credit card surcharge.

✓ Homer & Yoon (1992)

- More likely to buy mouthwash when shown pics of “bad” mouth than when shown pics of “good” mouth.

✓ Endowment effects - goal framing

26 ☐ **Summary**

✓ Three types of framing effects

- Risky choice, attribute, and goal.

✓ All share the issue of positive versus negative framing (it’s a valence issue).

✓ They are not all explained by the same mechanism.

- Risky choice: prospect theory (loss curves steeper)
- Attribute: priming effects (primes pos/neg associates)
- Goal: negative information is more salient than positive information (Fiske & Taylor, 1991).

27 ☐ **What about insurance?**

✓ If people prefer to take risks in the face of losses, why do they so readily buy insurance?

- The huge losses that are faced more than offset the sure losses of paying (relatively small) premiums.

28 ☐ **But, the framing effect still looms...**

✓ Factoid 1:

- Lots of people don’t carry insurance unless required to.
- House and car insurance is required when you have a loan on the property (otherwise, many would forego).

✓ Factoid 2:

- Likelihood of carrying collision on an auto decreases

significantly once the value decreases to a “manageable” loss.

29 ☐ More factoids...

✓ Factoid 3:

– Many who can afford health insurance don’t carry any.

✓ Factoid 4:

– Insurance industry offers “universal life” or “whole life” policies

- Plays to the bias against a sure loss.
- People prefer to believe that they are “investing” - it’s perceived as a gain!!!

30 ☐ And more...

✓ Also, modern health care plans play on the gain side

– They pitch plans in which you “gain” money at every office visit – you’re “buying” something.

- Low deductible

✓ In fact, the “riskier” plans (e.g., major medical) are much more cost effective for you than the ones that pay out for every office visit.

31 ☐ *Example: A Cornell study of the Dannon company.*

✓ Employees were offered two insurance plans

– Plan A – Premium was \$80/mo for an individual, 20% deductible for a maximum of \$2000 out of pocket.

– Plan B – Premium was \$231/mo for an individual, 0% deductible.

32 ☐ How much would each cost you?

✓ *Plan A*

–  $\$80 * 12 = \$960 + \$0 \text{ to } \$2000, \text{ or } \$960 \text{ to } \$2960$

✓ *Plan B*

–  $\$231 * 12 = \$2772 \text{ guaranteed}$

✓ 23% chose plan A, 77% plan B

✓ So, who made the wise choice?

– 84% of those on plan A saved money

– 37% of those on plan B saved money

33 ☐ Ditto for low deductibles for all kinds of insurance

✓ Agents pose these plans as allowing you to get a greater gain from the company when you have a loss.

34 ☐ Bottom line on insurance

✓ Carry it, but insure yourself for major losses (if you have that option)

– *Major medical.*

– *Expensive cars*

– *A house.*

✓ DON'T use insurance to avoid smaller losses (i.e., “immediate gains”).

35 ☐ What about the lottery?

✓ If people prefer to avoid risks in the face of gain, why do they play the lottery, slots, etc.?

– The utility of the large payoff looms larger than the sure gain of having the few extra dollars in your pocket.

– Gambling also plays on other psychological shortcomings that we'll discuss later.

## 36 ☐ Personal application

- ✓ When risky choice...
  - Compute expected value/utility
- ✓ Base decisions on long-run probabilities
  - Read et al. (1999): choice bracketing (broad vs. narrow)
- ✓ Recognize the effects of framing (80% lean) and either consider both frames or choose a neutral one (if possible).
- ✓ If you want to influence outcomes, use framing to your advantage.
  - Manipulating others...or yourself!