Lecture 3: Predictably Irrational Decision Making

Political Psychology

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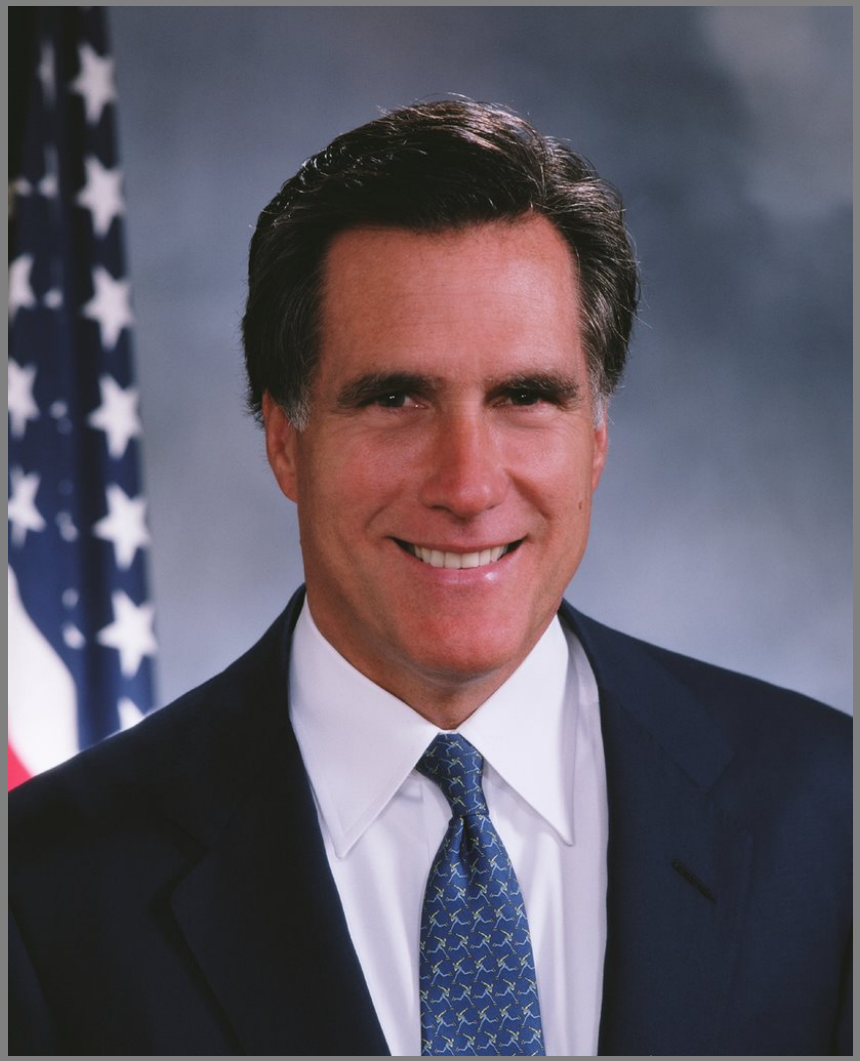
pop quiz!

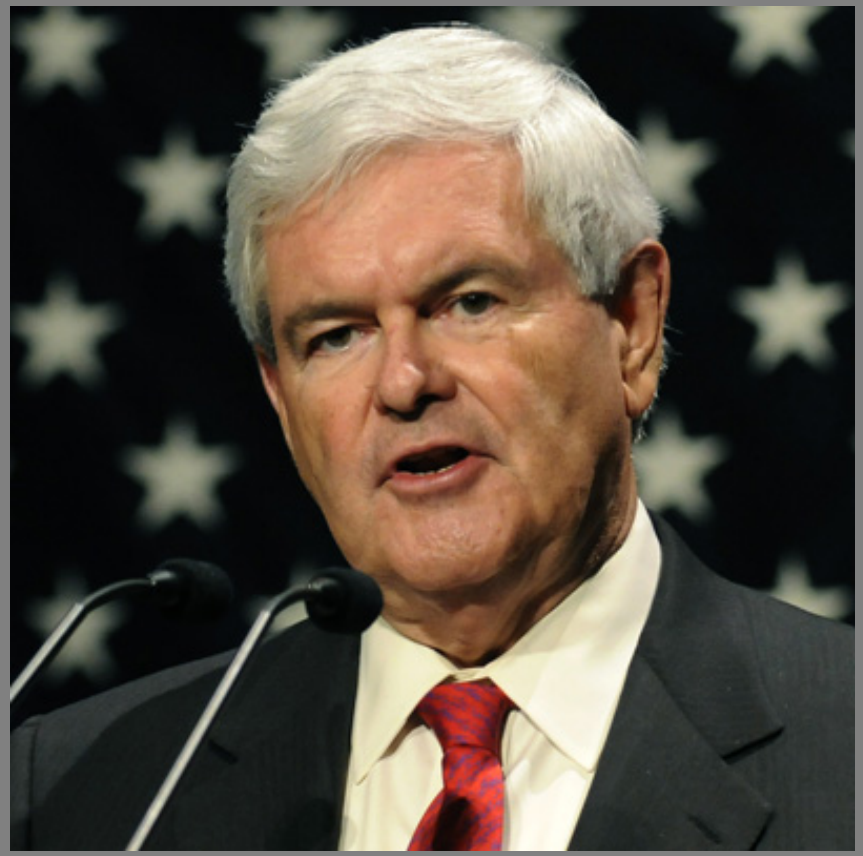
A bat and ball cost $1.10.

The bat costs one dollar more than the ball.

How much does the ball cost?

Alternatives. . .





Rational Choice

Rationality Assumption

1. Individuals form (on average) correct beliefs about events and other people's behavior.
2. Given these beliefs, individuals choose the action that best satisfies their preferences.

Kahneman and Tversky v Classical Economics

(Kahneman, 2003)

What if we don't *choose*?

Rationality Assumption

1. Individuals form (on average) correct beliefs about events and other people's behavior.
2. ~~Given these beliefs, individuals choose the action that best satisfies their preferences.~~

two system model

System 1 (Intuition)

- Fast
- Parallel
- Automatic
- Effortless
- Associative
- Slow-learning
- Emotional

System 2 (Reasoning)

- Slow
- Serial
- Controlled
- Effortful
- Rule-governed
- Flexible
- Neutral

System 1 and System 2 and alternatives?

Should I enroll in this course?

System 1

System 2

System 1 and System 2 and alternatives?

Should I enroll in this course?

System 1

- suit (stuffy)
- does/does not look like me (comforting/discomforting)
- tall (intelligent/authoritative)

System 2

System 1 and System 2 and alternatives?

Should I enroll in this course?

System 1

- suit (stuffy)
- does/does not look like me (comforting/discomforting)
- tall (intelligent/authoritative)

System 2

$$U^{\text{You}}_{\text{enroll}} = \text{interesting} + \text{important} - \text{reading} - \text{assignments} - \text{far} - \text{early}$$

System 1 System 2

System 2 has (at least) two "choices" for monitoring:

- endorse system 1
- correct system 1

System 2

(Kahneman, 2003)

- System 2 is the "lazy controller" (Kahneman, 2011)

pop quiz!

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How much does the ball cost?

pop quiz!

A bat and ball cost $1.10.

The bat costs one dollar more than the ball.

How much does the ball cost?

answer = $.05

System 2

(Kahneman, 2003)

- System 2 is the "lazy controller" (Kahneman, 2011)

System 2

(Kahneman, 2003)

- System 2 is the "lazy controller" (Kahneman, 2011)
- System 2 is the "gluttonous controller" (Enos, 2012)

System 2

www.howisitmade.org

- System 2 is the "lazy controller" (Kahneman, 2011)
- System 2 is the "gluttonous controller" (Enos, 2012)

The lazy (and gluttonous) controller

System 2

1. has to be lazy

The lazy (and gluttonous) controller

System 2

1. has to be lazy
    1. energy conservation

The lazy (and gluttonous) controller

System 2

1. has to be lazy
    1. energy conservation
    2. efficiency

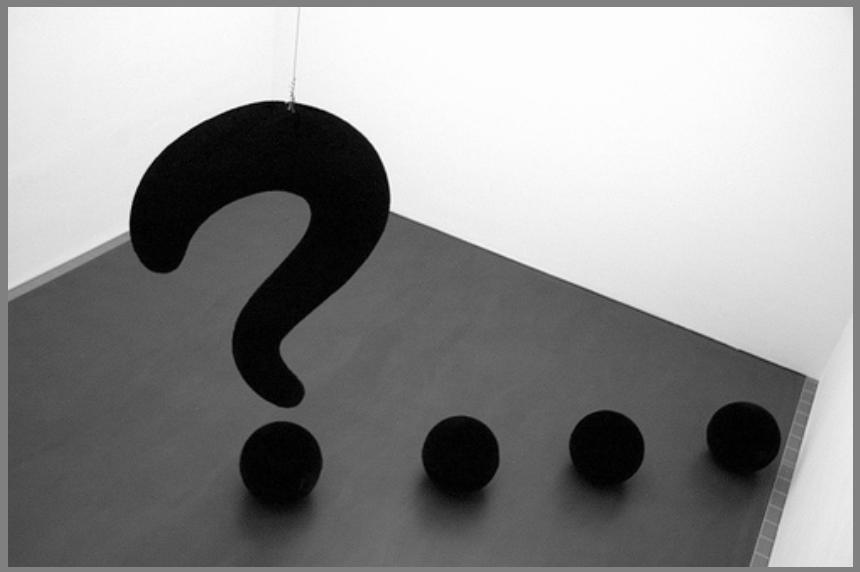
The lazy (and gluttonous) controller

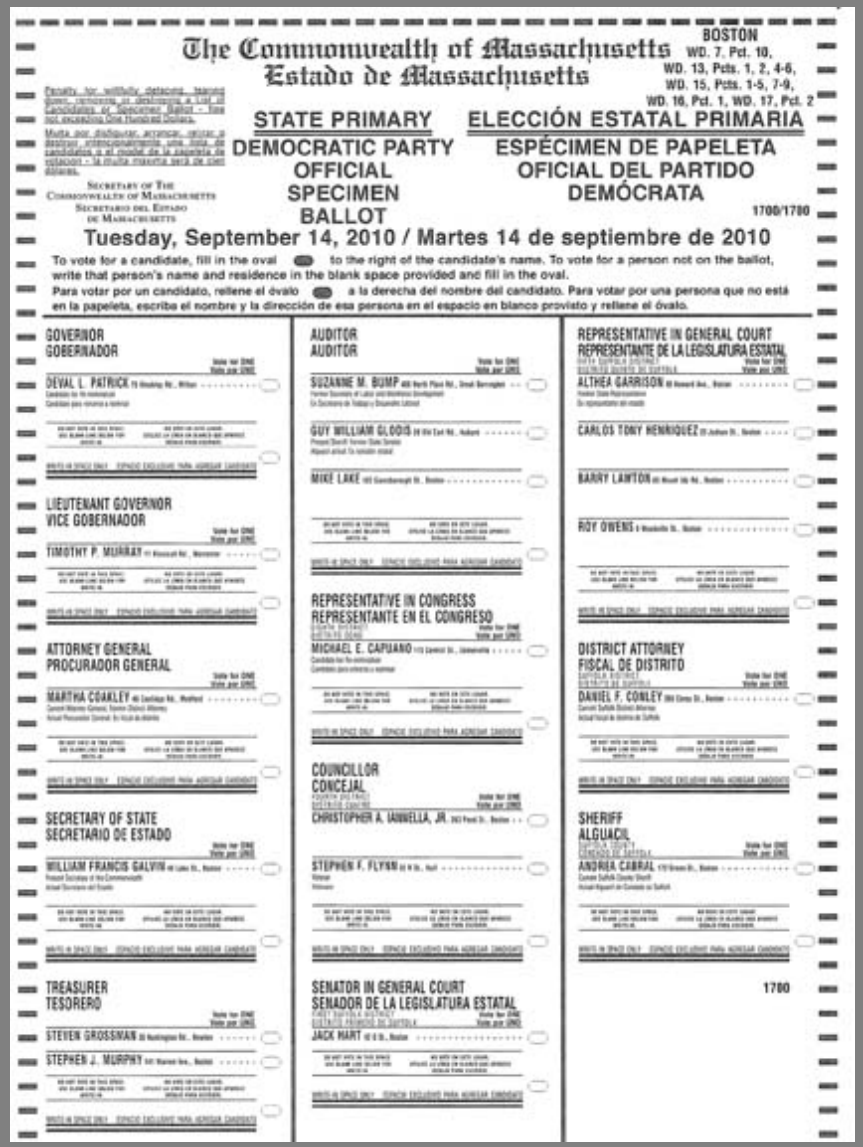
System 2

1. has to be lazy
    1. energy conservation
    2. efficiency
2. can afford to be lazy (system 1 usually makes very good decisions)

Which system rules in politics?

System 1 v system 2 in a democracy?





The Commonwealth of Massachusetts
Estado de Massachusetts

BOSTON
WD. 7, Pct. 10,
WD. 13, Pcts. 1, 2, 4-6,
WD. 15, Pcts. 1-5, 7-9,
WD. 16, Pct. 1, WD. 17, Pct. 2

Penalty for willfully defacing, tearing down, removing or destroying a List of Candidates or Specimen Ballot - fine not exceeding One Hundred Dollars.

Multa por dañar, arrancar, retirar o destruir intencionalmente una lista de candidatos o el modelo de la papeleta de votación - la multa máxima será de cien dólares.

SECRETARY OF THE COMMONWEALTH OF MASSACHUSETTS
SECRETARIO DEL ESTADO DE MASSACHUSETTS

STATE PRIMARY
DEMOCRATIC PARTY
OFFICIAL SPECIMEN BALLOT

ELECCIÓN ESTATAL PRIMARIA
ESPÉCIMEN DE PAPELETA OFICIAL DEL PARTIDO DEMÓCRATA

1700/1780

Tuesday, September 14, 2010 / Martes 14 de septiembre de 2010

To vote for a candidate, fill in the oval to the right of the candidate's name. To vote for a person not on the ballot, write that person's name and residence in the blank space provided and fill in the oval.
Para votar por un candidato, rellene el óvalo a la derecha del nombre del candidato. Para votar por una persona que no está en la papeleta, escriba el nombre y la dirección de esa persona en el espacio en blanco provisto y rellene el óvalo.

GOVERNOR
GOBERNADOR
DEVAL L. PATRICK

LIEUTENANT GOVERNOR
VICE GOBERNADOR
TIMOTHY P. MURRAY

ATTORNEY GENERAL
PROCURADOR GENERAL
MARTHA COAKLEY

SECRETARY OF STATE
SECRETARIO DE ESTADO
WILLIAM FRANCIS GALVIN

TREASURER
TESORERO
STEVEN GROSSMAN
STEPHEN J. MURPHY

AUDITOR
AUDITOR
SUZANNE M. BUMP
GUY WILLIAM GLODIS
MIKE LAKE

REPRESENTATIVE IN CONGRESS
REPRESENTANTE EN EL CONGRESO
MICHAEL E. CAPUANO

COUNCILLOR
CONCEJAL
CHRISTOPHER A. IANNELLA, JR.
STEPHEN F. FLYNN

SENATOR IN GENERAL COURT
SENADOR DE LA LEGISLATURA ESTATAL
JACK HART

REPRESENTATIVE IN GENERAL COURT
REPRESENTANTE DE LA LEGISLATURA ESTATAL
ALTHEA GARRISON
CARLOS TONY HENRIQUEZ
BARRY LAWTON
ROY OWENS

DISTRICT ATTORNEY
FISCAL DE DISTRITO
DANIEL F. CONLEY

SHERIFF
ALGUACIL
ANDREA CABRAL

1780

What if we decide, but we're bad at it?

Rationality Assumption

1. Individuals form (on average) correct beliefs about events and other people's behavior.
2. Given these beliefs, individuals choose the action that best satisfies their preferences.

What if we decide, but we're bad at it?

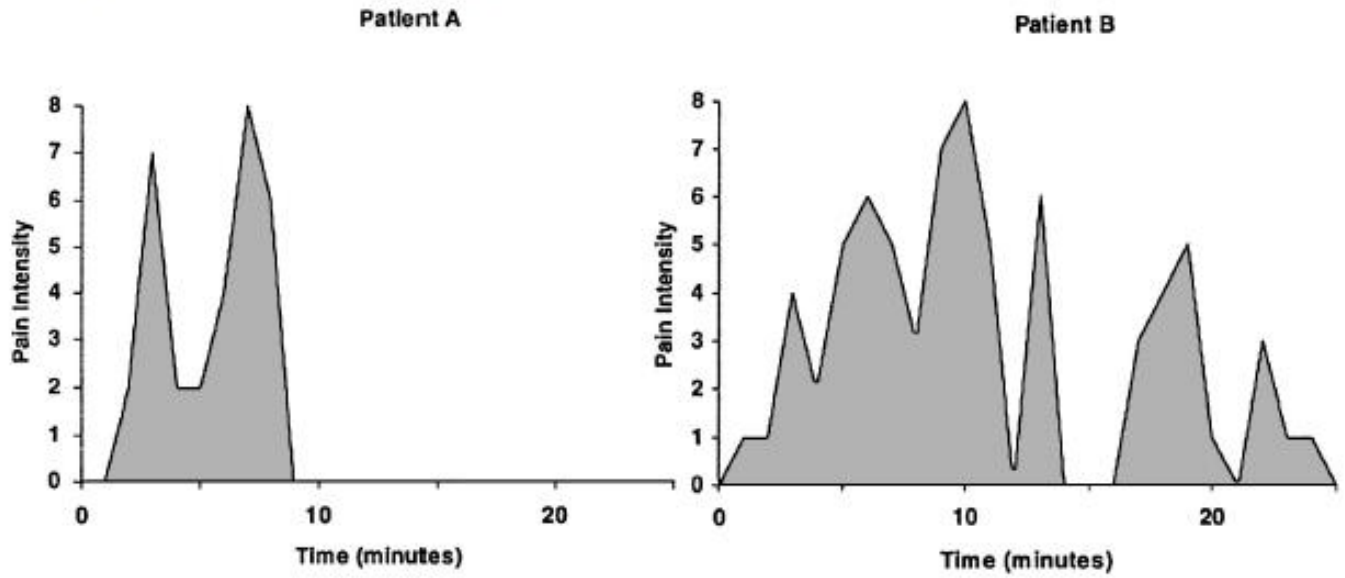
Rationality Assumption

1. ~~Individuals form (on average) correct beliefs about events and other people's behavior~~.
2. Given these beliefs, individuals choose the action that best satisfies their preferences.

Accessibility of alternatives

recency

Figure 9
Pain Intensity Reported by Two Colonoscopy Patients



(Kahneman, 2003)

accessibility – recency (bias)

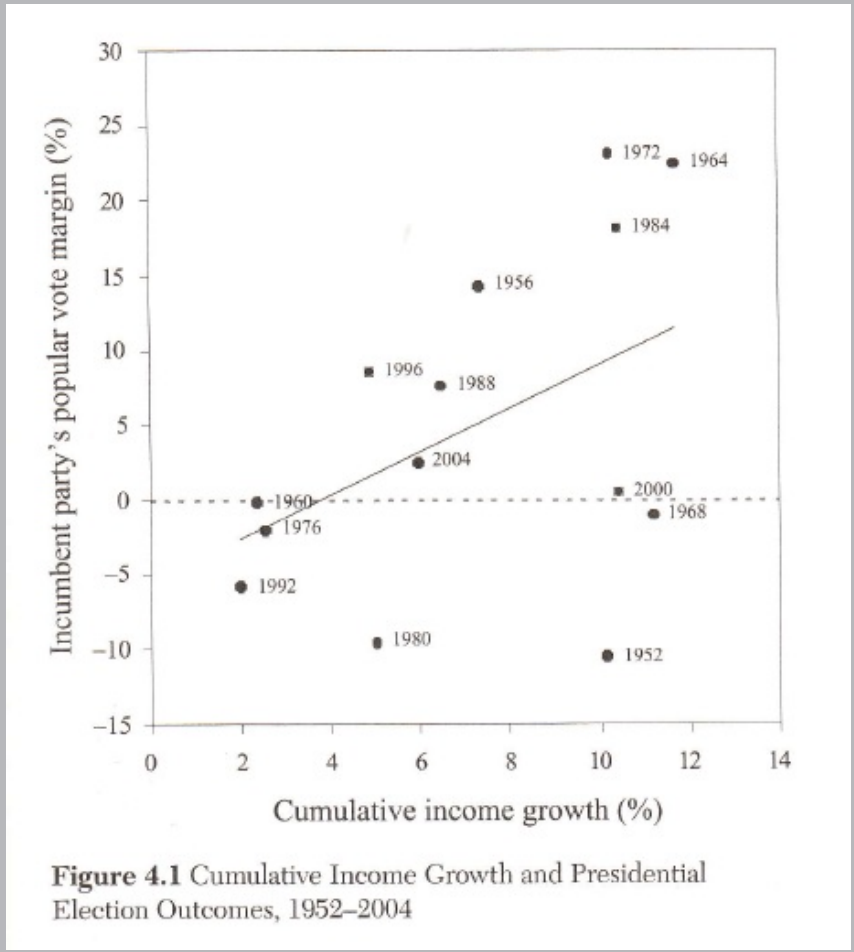


Figure 4.1 Cumulative Income Growth and Presidential Election Outcomes, 1952–2004

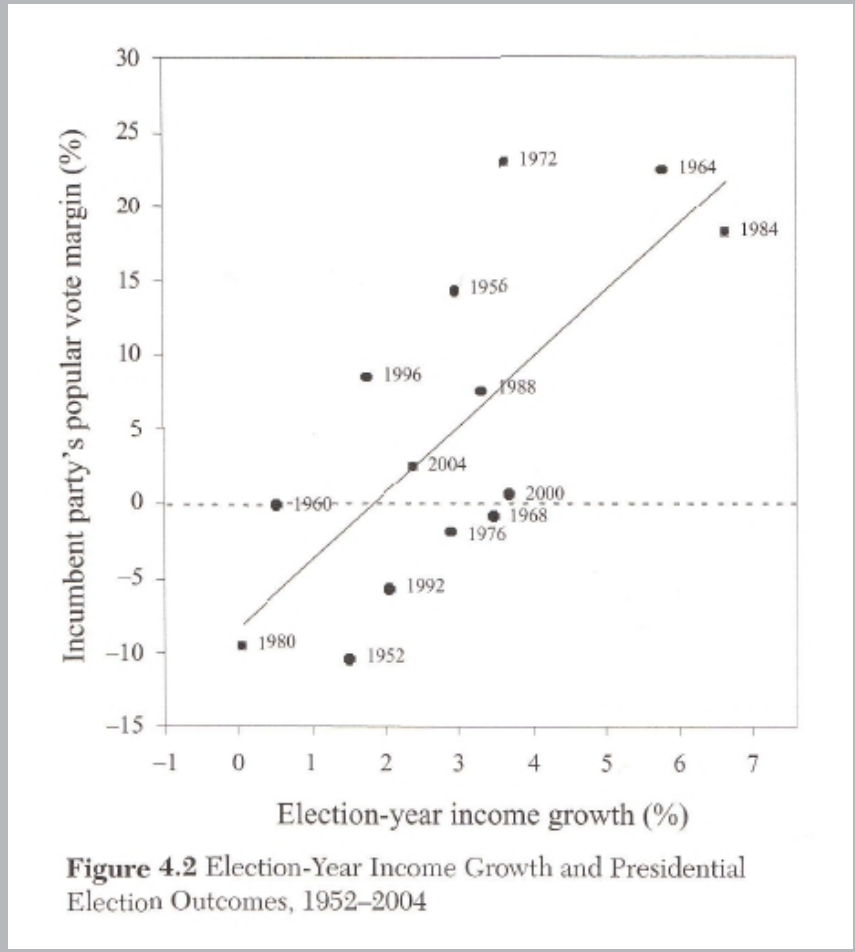
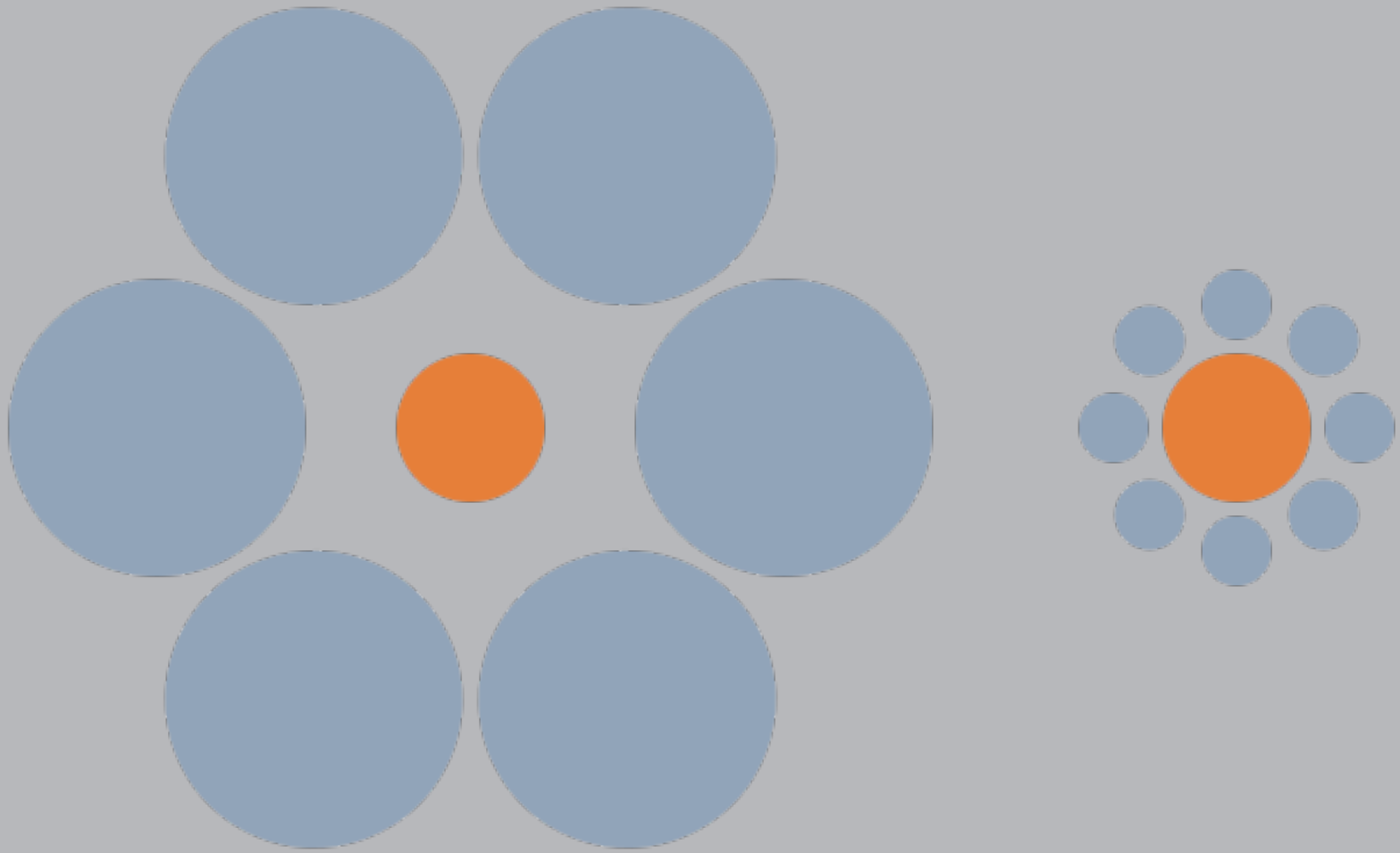


Figure 4.2 Election-Year Income Growth and Presidential Election Outcomes, 1952–2004

(Bartels, 2008)

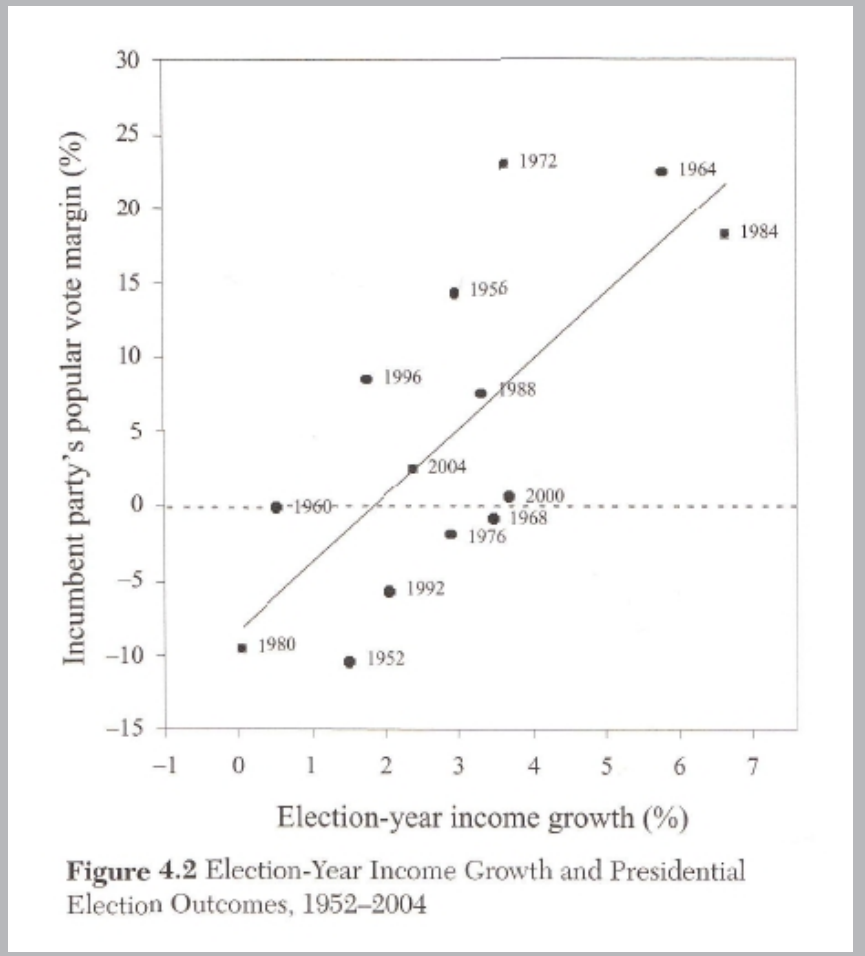
Is recency bias a bias?

relativity



(Ariely, 2009)

accessibility and comparable dimensions



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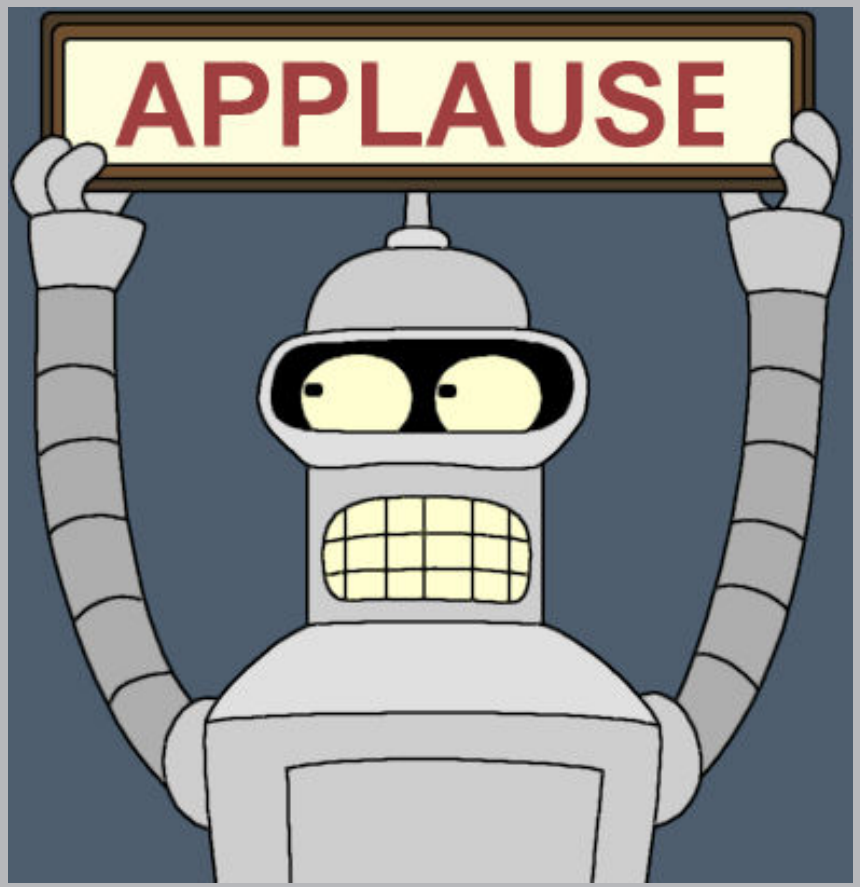
accessibility



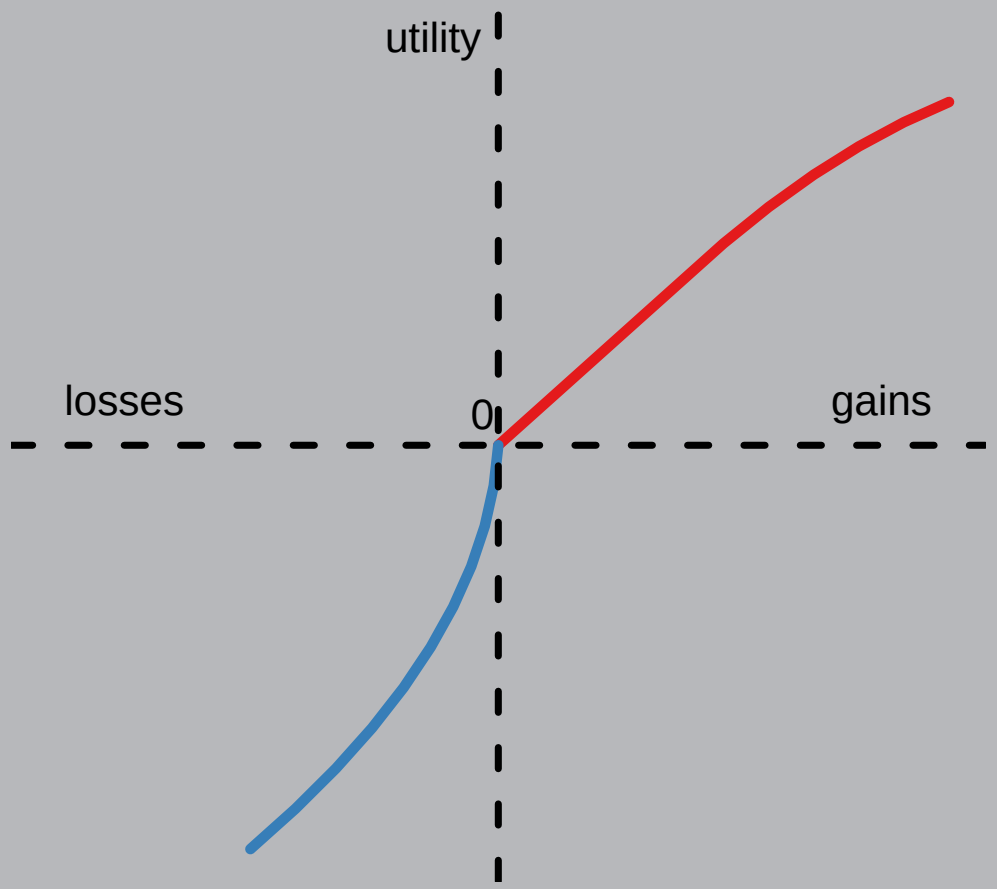
(Futurama)

note for the future . . .

Many properties of accessibility are likely a result of *heuristic cognitive processes*.

system 1, system 2, and accessibility in a republic?

Prospect Theory



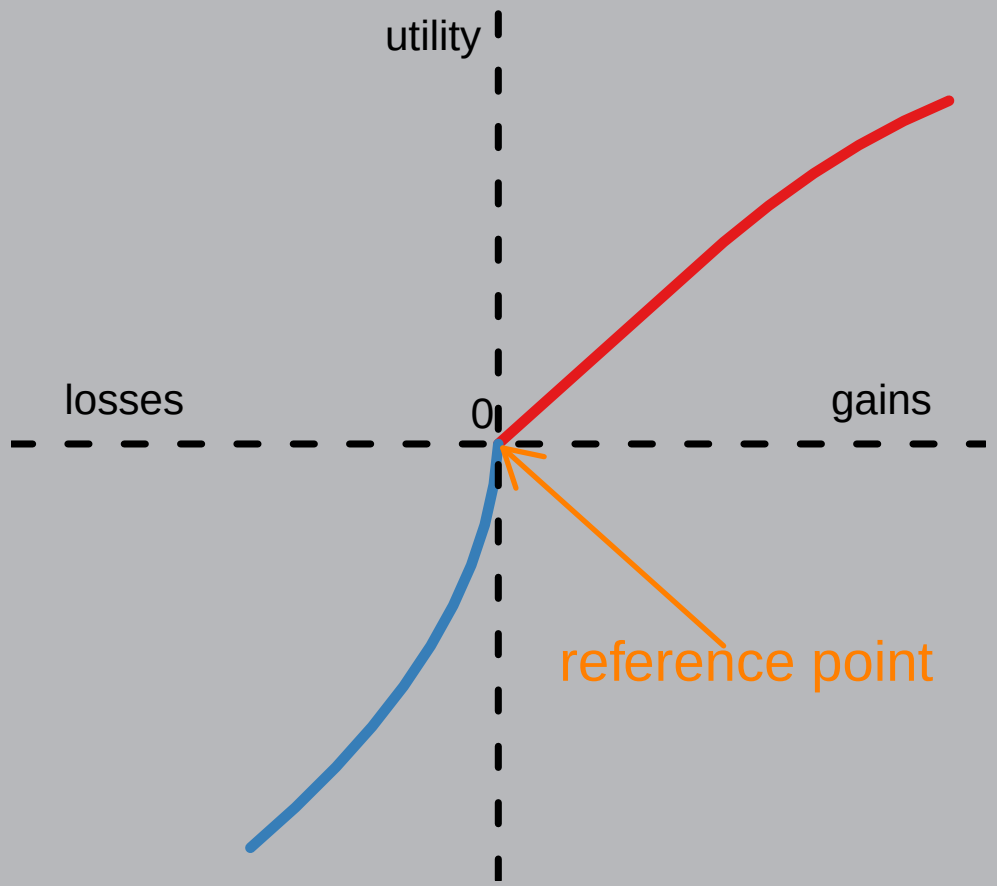
Prospect Theory

the keys of Prospect Theory

- Values are reference dependent
- in domain of **gains**, we are **Risk-averse**
- in the domain of **losses**, we are **Risk-seeking**
- IMPORTANTLY: **losses loom larger than gains**

Prospect Theory

reference dependence



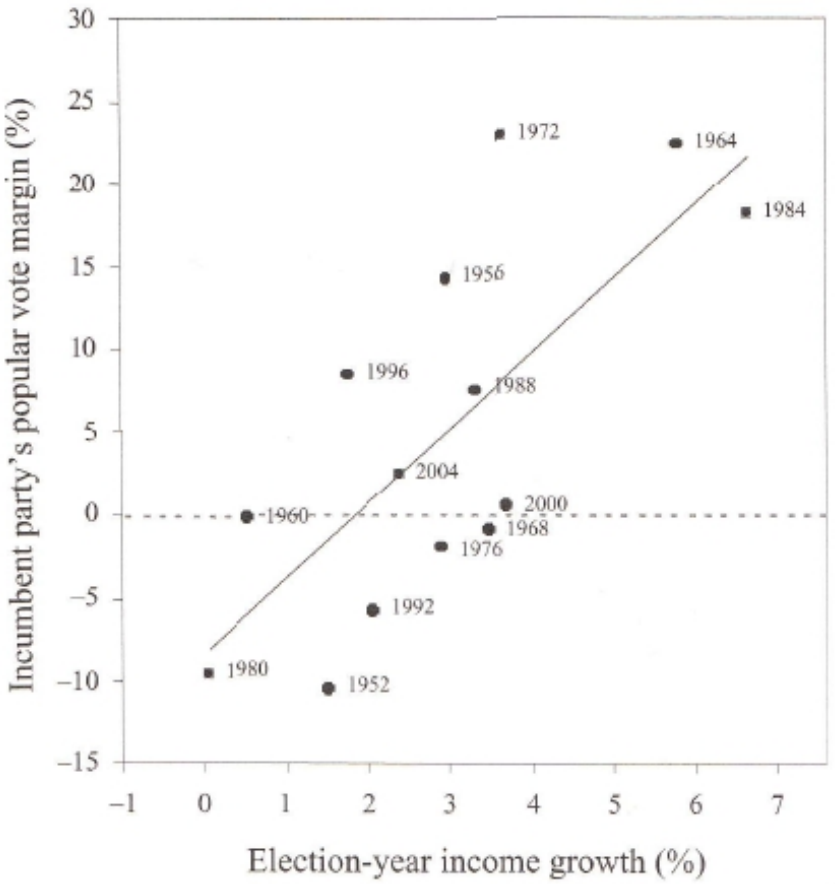
Reference dependence

	time 1	time 2
Person A	\$50	\$30
Person B	\$10	\$30

Are person A and B equally satisfied?

- Classical Rational Choice says YES!
- Prospect Theory says NO!

Reference dependence



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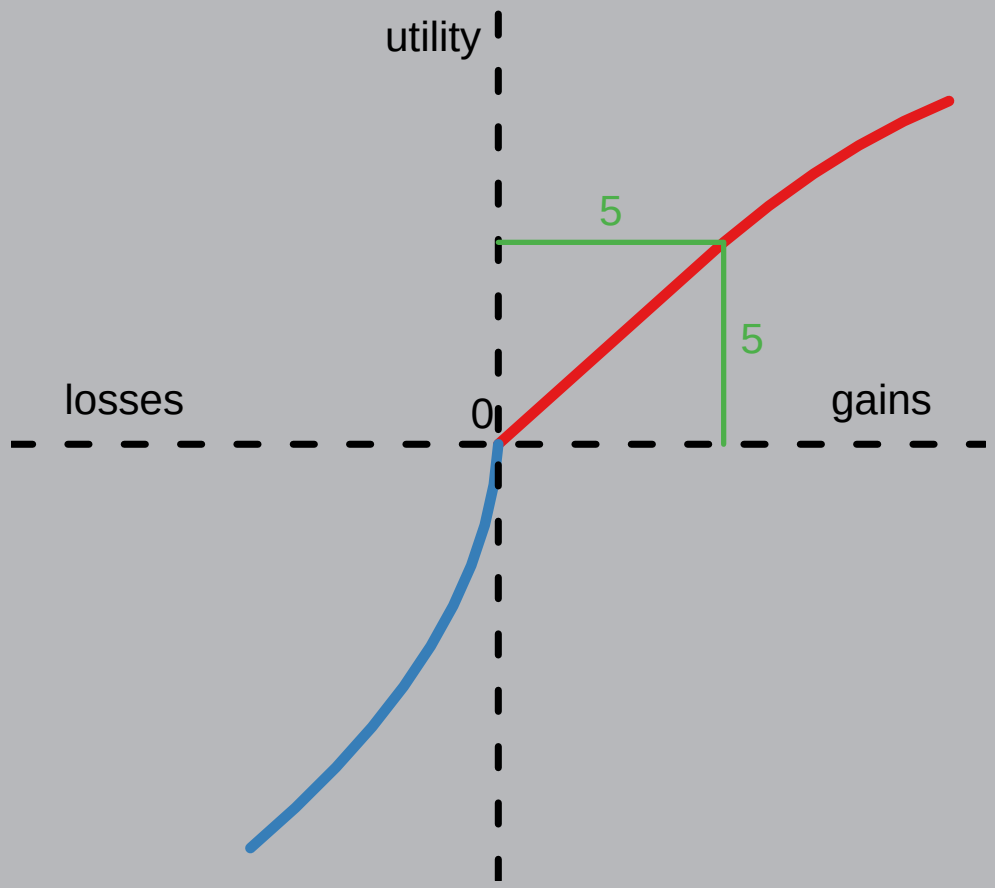

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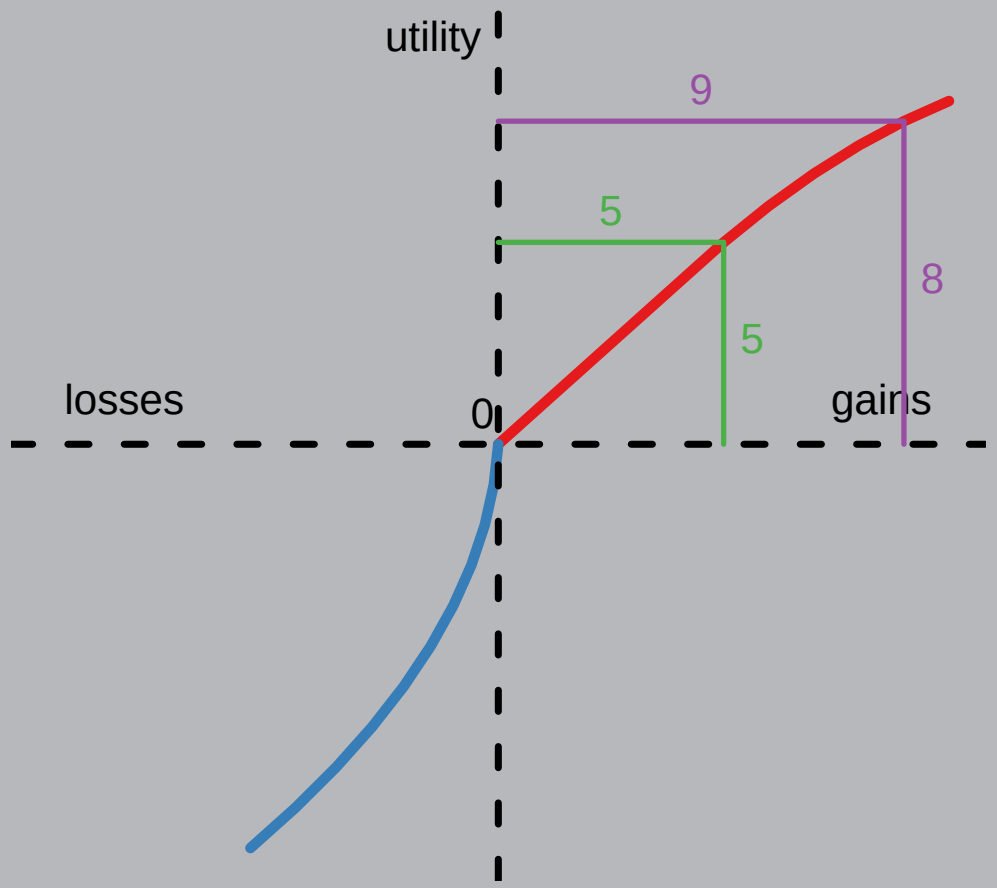

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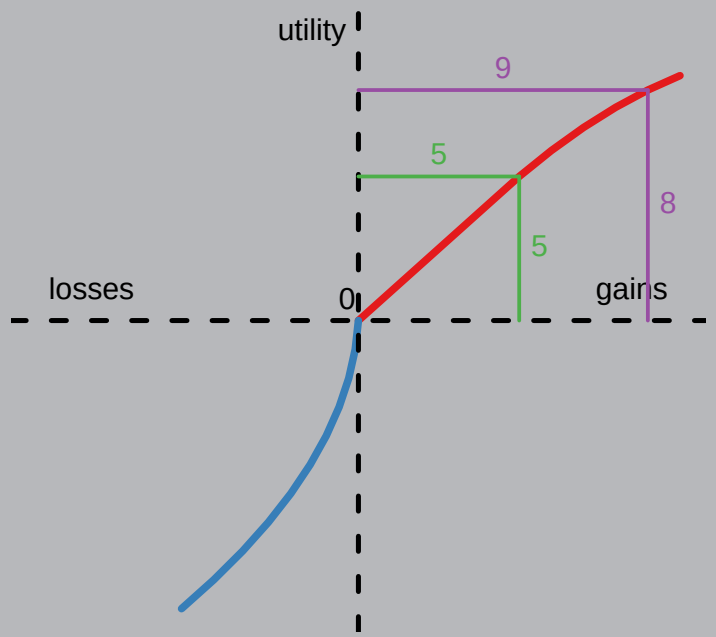
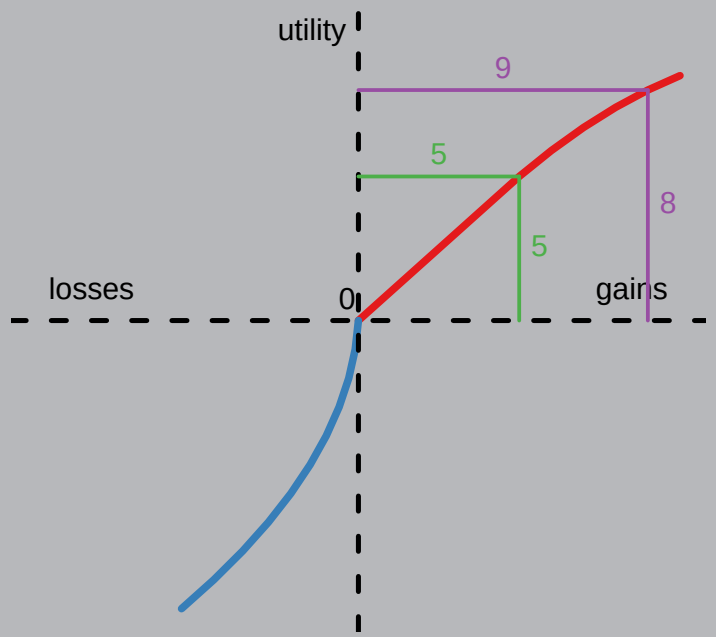


"risk averse"

Prospect Theory



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- You are faced with two alternatives:

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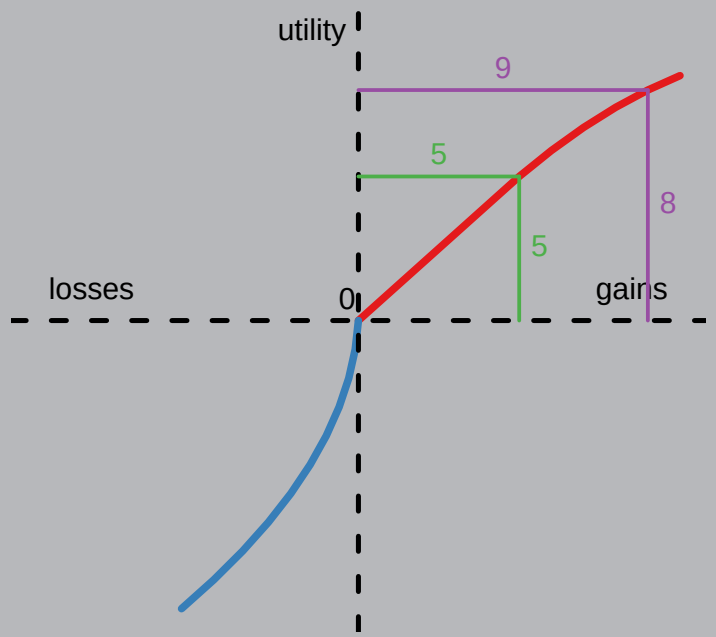

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- You are faced with two alternatives:
  1. One has a positive payoff and is (more) certain.

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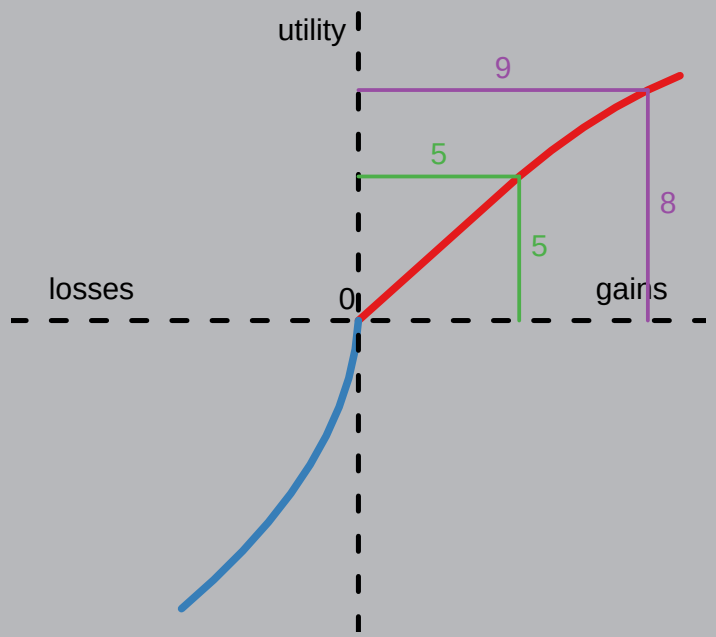

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- You are faced with two alternatives:
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  2. The other has an even greater payoff, but is more uncertain.

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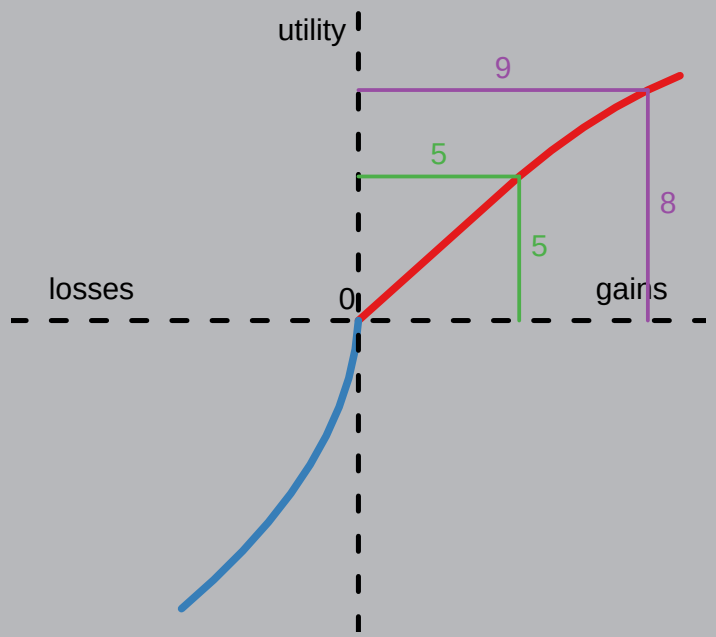

"risk averse"

- You are faced with two alternatives:
  1. One has a positive payoff and is (more) certain.
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- The utility of the greater payoff is not worth the risk of gaining nothing.

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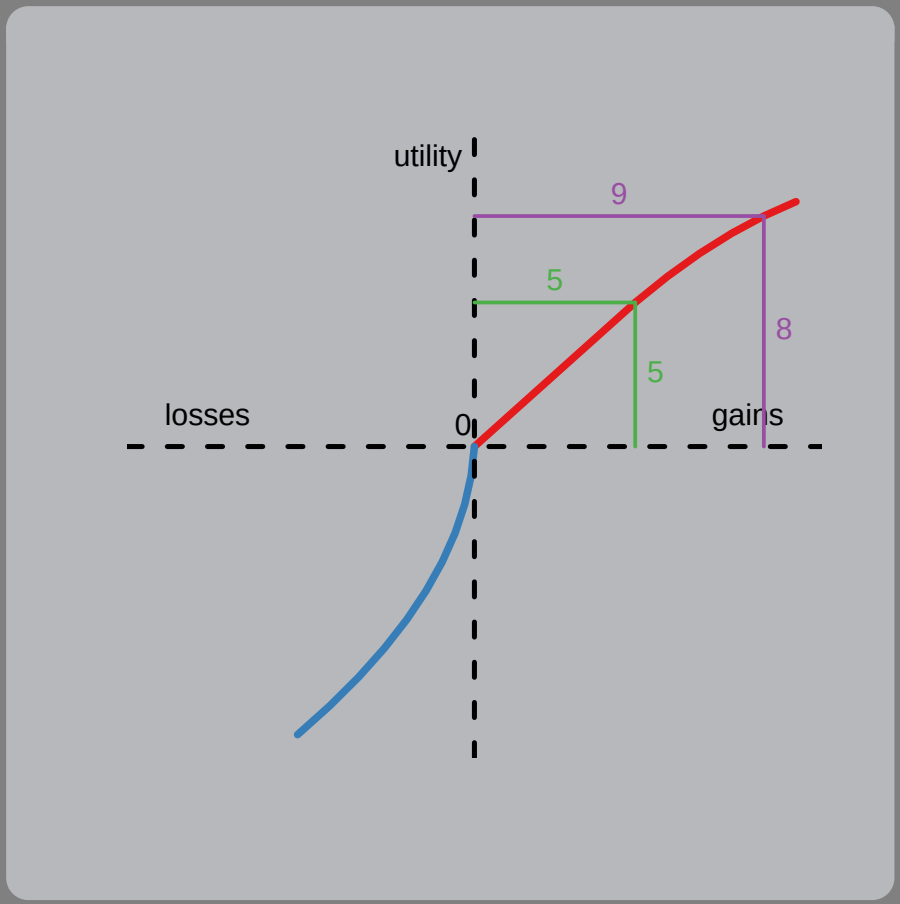

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  1. One has a positive payoff and is (more) certain.
  2. The other has an even greater payoff, but is more uncertain.
- The utility of the greater payoff is not worth the risk of gaining nothing.
- Examples: job seeking, public infrastructure . . .

Prospect Theory – gains and risk aversion

(USDOT)

Prospect Theory

the keys of Prospect Theory

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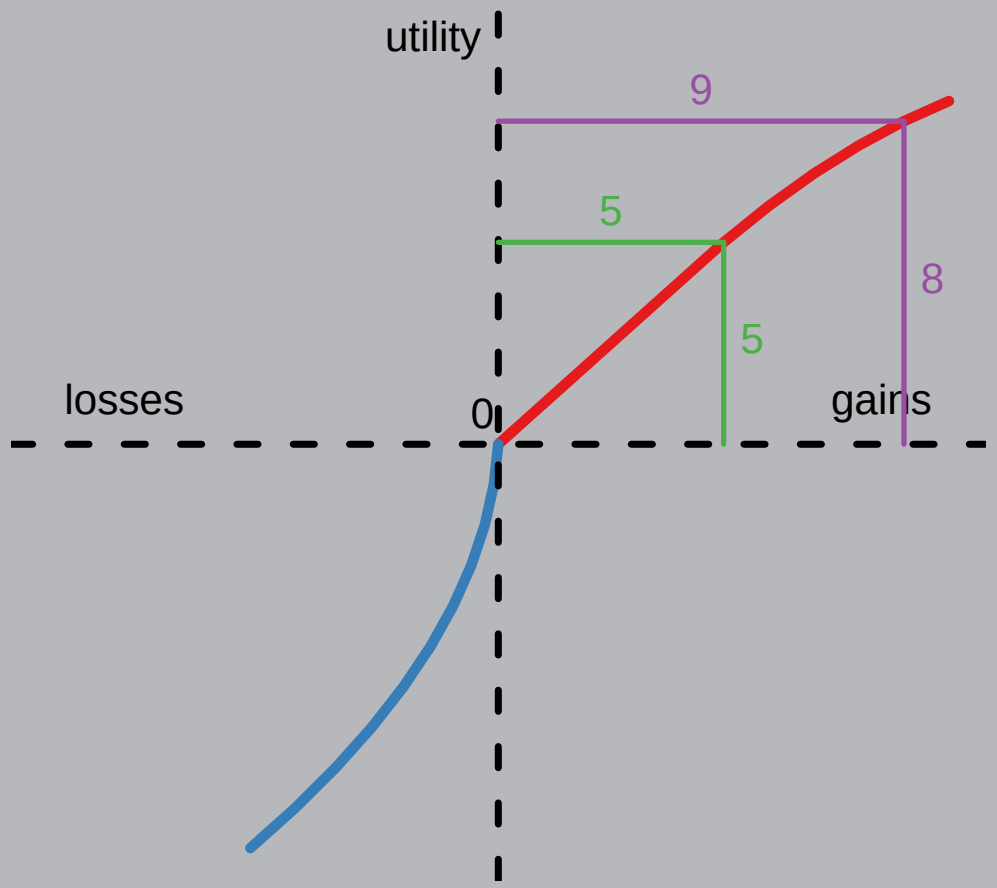

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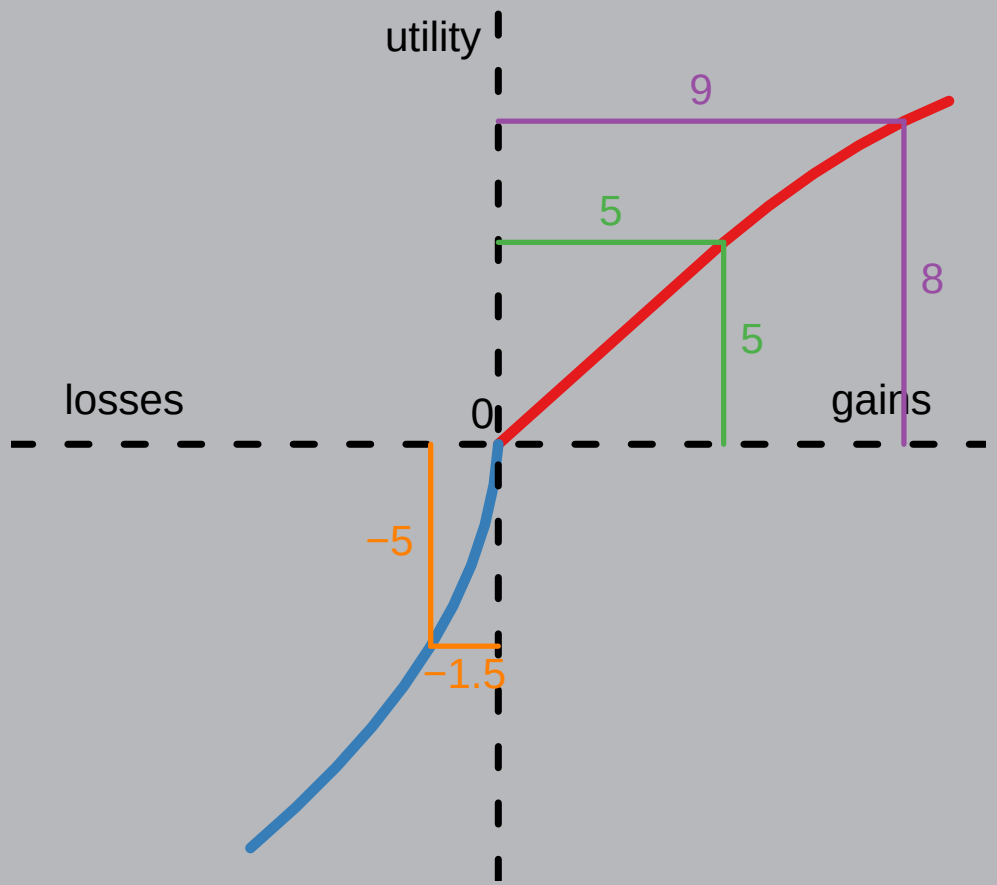

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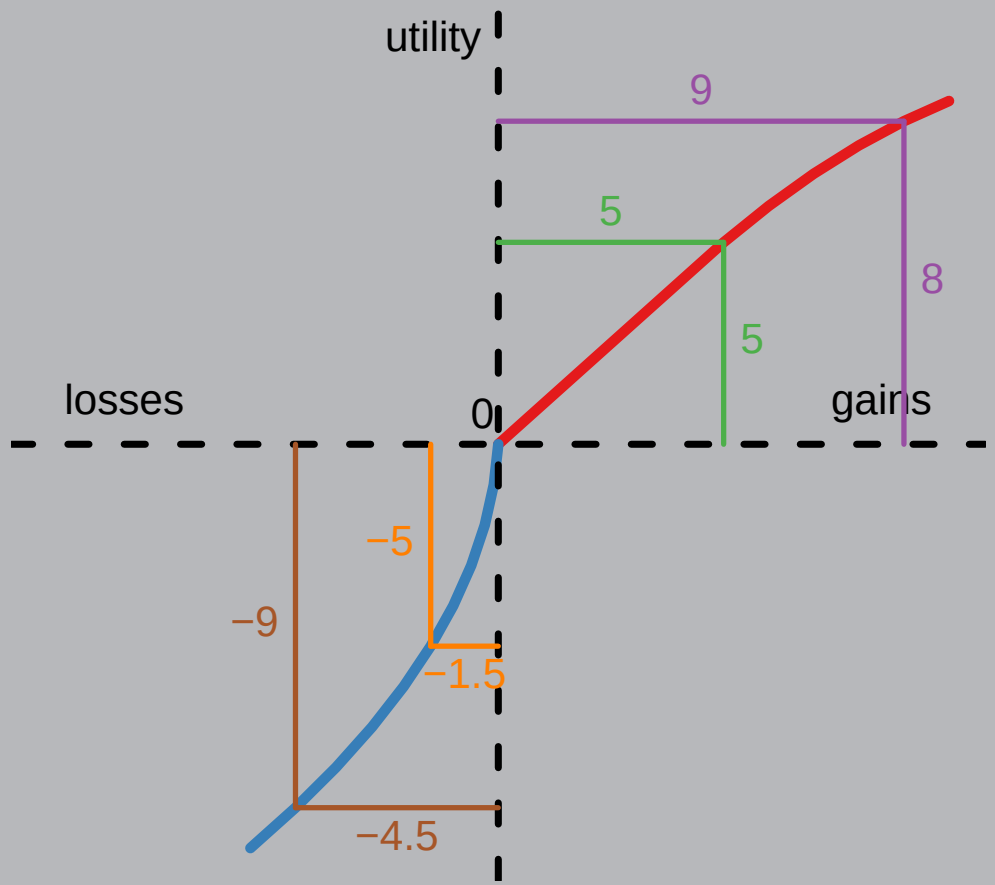

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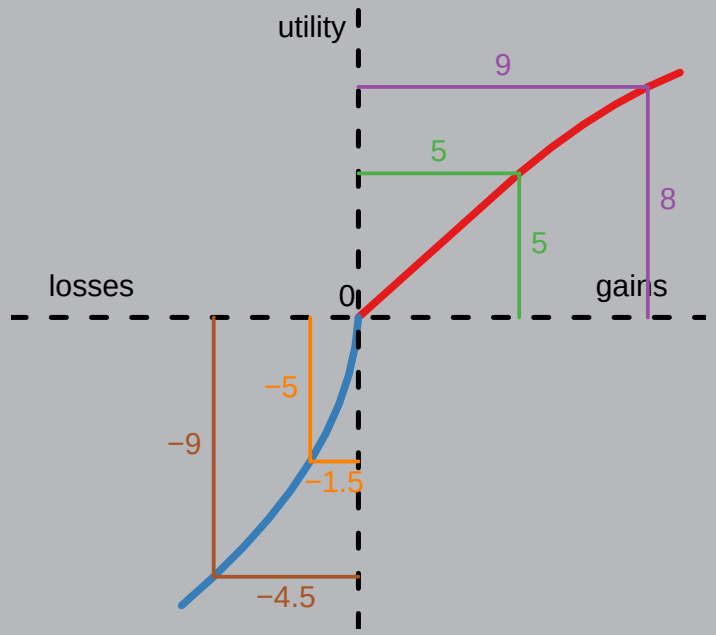
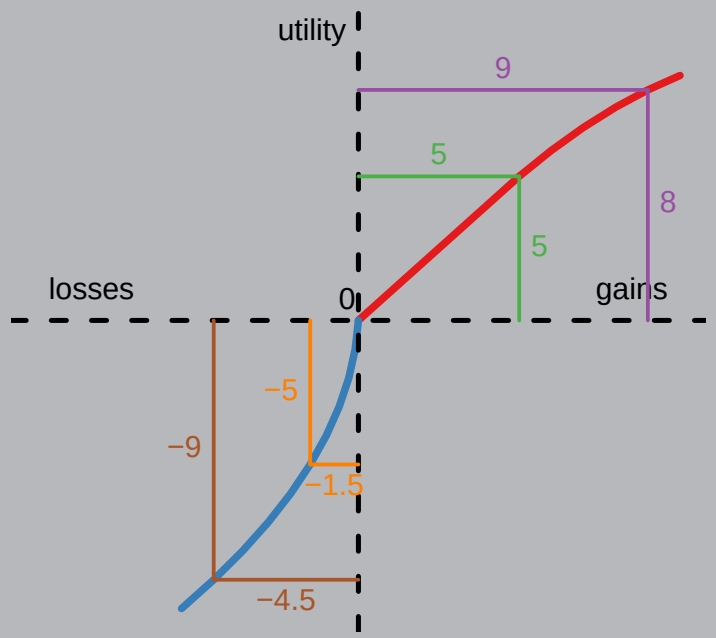


“risk accepting”

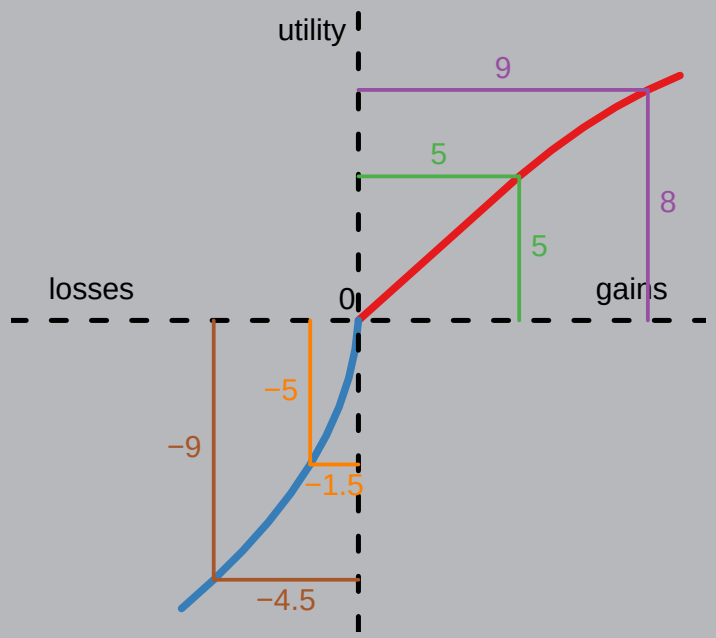
Prospect Theory



“risk accepting”

- You are faced with two alternatives:

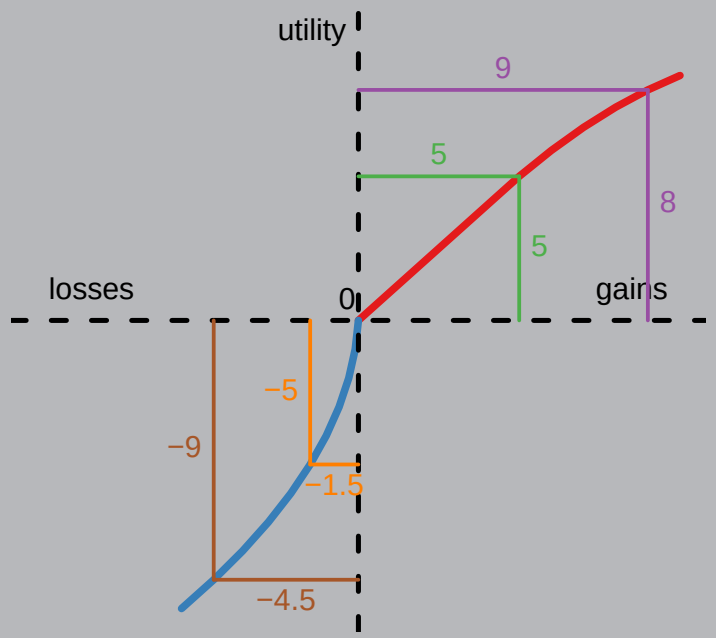
Prospect Theory



"risk accepting"

- You are faced with two alternatives:
  1. One has a negative payoff and is (more) certain.

Prospect Theory



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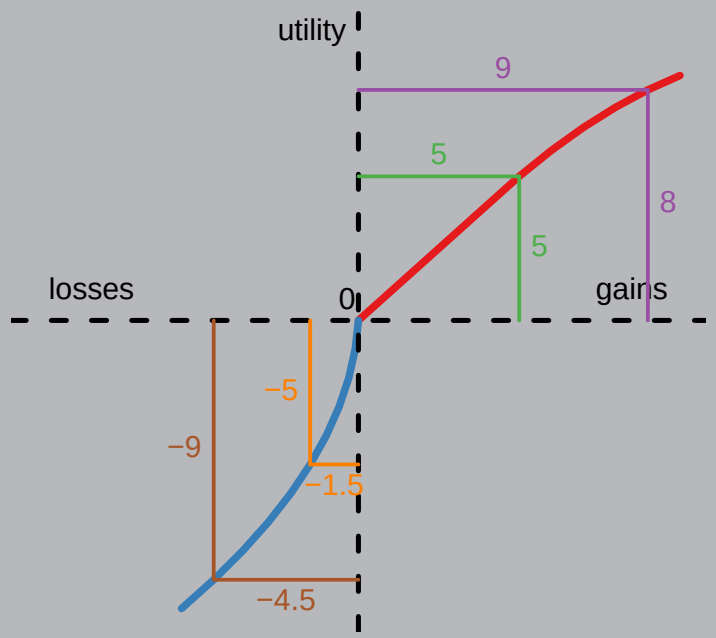

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- You are faced with two alternatives:
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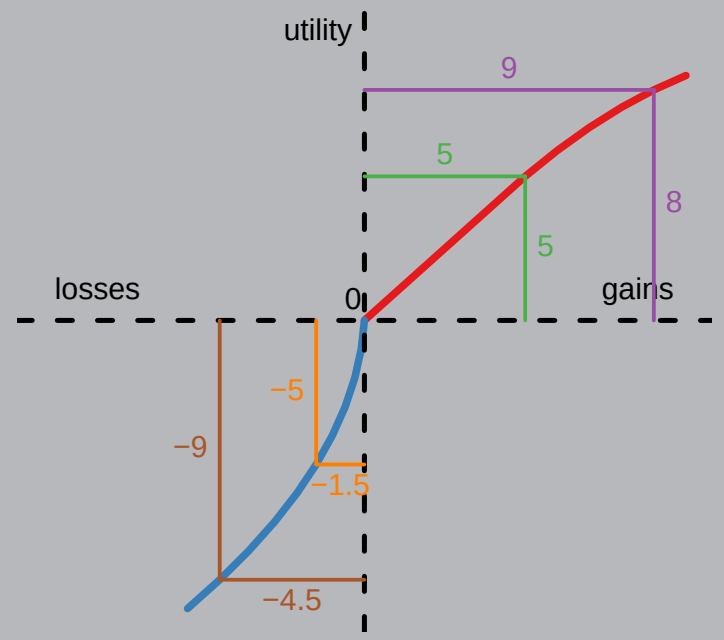
- The utility of not losing anything is worth the risk.

Prospect Theory



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- The utility of not losing anything is worth the risk.
- Examples: medicine, Iraq surge . . .

Prospect Theory – losses and risk seeking

SURGE

Prospect Theory

the keys of Prospect Theory

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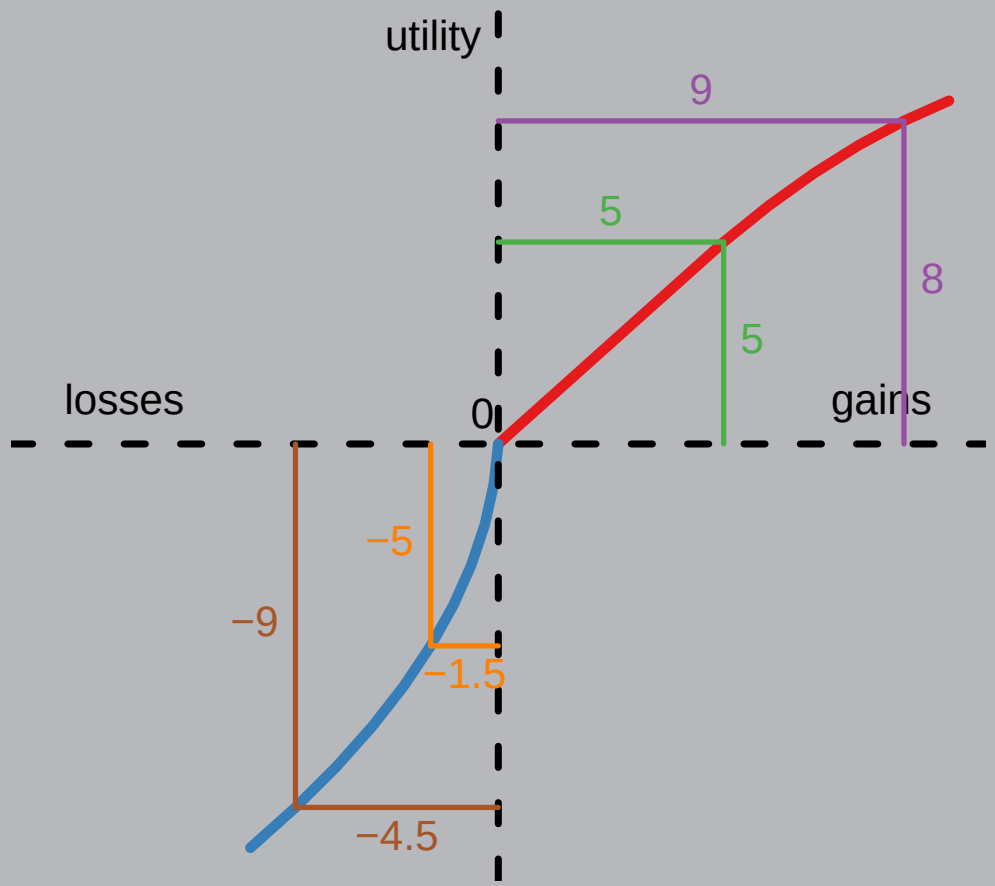
Prospect Theory

"kinked" at the reference point



Prospect Theory

loss aversion

↓

status quo bias

↓

incumbency bias

Prospect theory and Downs...

unless, A is an incumbent...

$$\text{party differential} = U_t^A - E(U_{t+1}^B)$$

if party differential > 0, vote for Party A

if party differential < 0, vote for Party B

Prospect theory and Downs...

unless, A is an incumbent...

$$\text{party differential} = U_t^A - E(U_{t+1}^B)$$

if party differential > 0, vote for Party A

if party differential < 0, vote for Party B

because of loss aversion

The potential losses associated with a change loom larger than the potential gains.

Prospect Theory: how do they know this?

Kahneman and Tversky (1979)

PREFERENCES BETWEEN POSITIVE AND NEGATIVE PROSPECTS

	Positive prospects			Negative prospects		
Problem 3:	(4,000, .80)	<	(3,000).	Problem 3′:	(−4,000, .80)	>	(−3,000).
$N = 95$	[20]		[80]*	$N = 95$	[92]*		[8]
Problem 4:	(4,000, .20)	>	(3,000, .25).	Problem 4′:	(−4,000, .20)	<	(−3,000, .25).
$N = 95$	[65]*		[35]	$N = 95$	[42]		[58]
Problem 7:	(3,000, .90)	>	(6,000, .45).	Problem 7′:	(−3,000, .90)	<	(−6,000, .45).
$N = 66$	[86]*		[14]	$N = 66$	[8]		[92]*
Problem 8:	(3,000, .002)	<	(6,000, .001).	Problem 8′:	(−3,000, .002)	>	(−6,000, .001).
$N = 66$	[27]		[73]*	$N = 66$	[70]*		[30]

- 3 and 3', etc are experiments (subjects see one or the other)

Prospect Theory: how do they know this?

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$N = 95$	[65]*		[35]	$N = 95$	[42]		[58]
Problem 7:	(3,000, .90)	>	(6,000, .45).	Problem 7′:	(−3,000, .90)	<	(−6,000, .45).
$N = 66$	[86]*		[14]	$N = 66$	[8]		[92]*
Problem 8:	(3,000, .002)	<	(6,000, .001).	Problem 8′:	(−3,000, .002)	>	(−6,000, .001).
$N = 66$	[27]		[73]*	$N = 66$	[70]*		[30]

- 3 and 3', etc are experiments (subjects see one or the other)
- "Given a choice of a 80% of winning (losing) $4000 or winning (losing) $3,000 with certainty, which would you choose?"

Prospect Theory: how do they know this?

Kahneman and Tversky (1979)

PREFERENCES BETWEEN POSITIVE AND NEGATIVE PROSPECTS

	Positive prospects			Negative prospects			
Problem 3:	(4,000, .80)	<	(3,000).	Problem 3′:	(−4,000, .80)	>	(−3,000).
$N = 95$	[20]		[80]*	$N = 95$	[92]*		[8]
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- [20] and [80] are the percent of subjects choosing each

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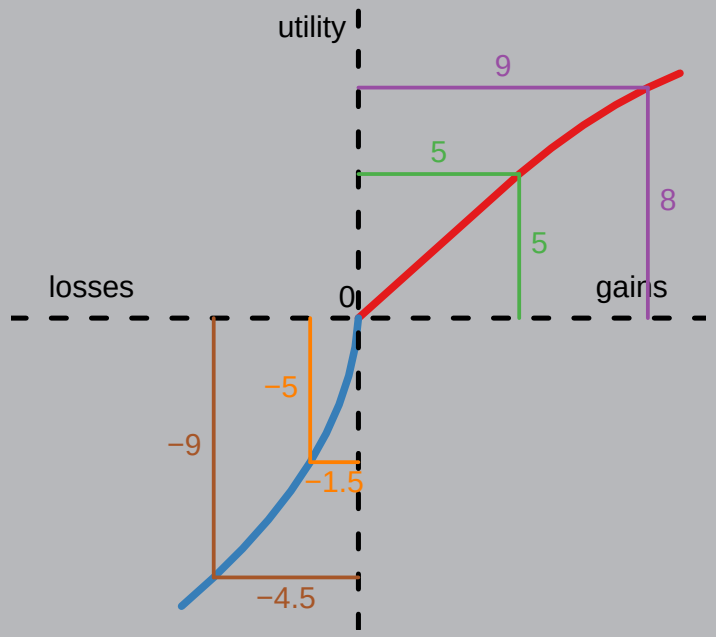
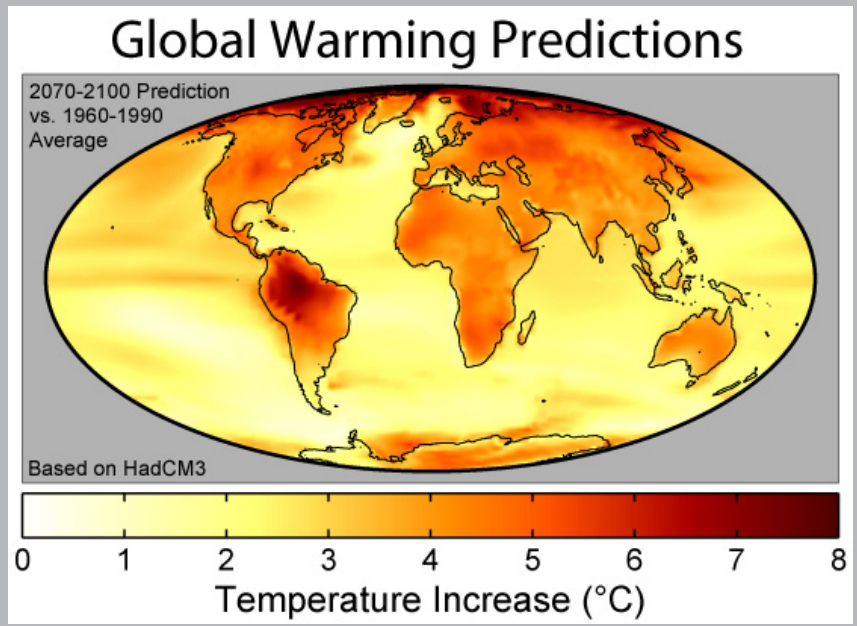
Program A: 22% (N = 59)

Prospect Theory





NASA

Framing effects and ObamaCare?

risk aversion, status quo bias, and regime change

Theories of Behavior

Causal Proximity

1. Situational
2. Social
3. Biological