Behavioral Economics: Riziko

Behavioral + Experimental Econ

Risk

Some papers


THE UNITED STATES OF AMERICA
ONE DOLLAR
THIS NOTE IS LEGAL TENDER FOR ALL DEBTS, PUBLIC AND PRIVATE

What would you do?

Hypotheticals not too reliable

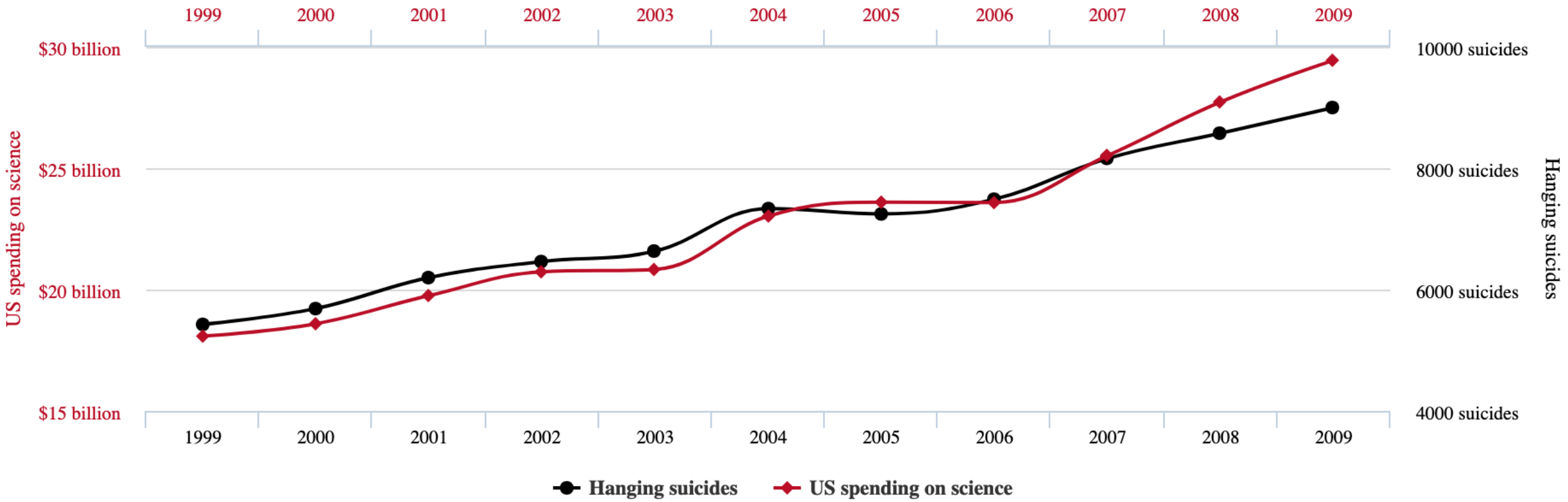
OBSERVATION

US spending on science, space, and technology

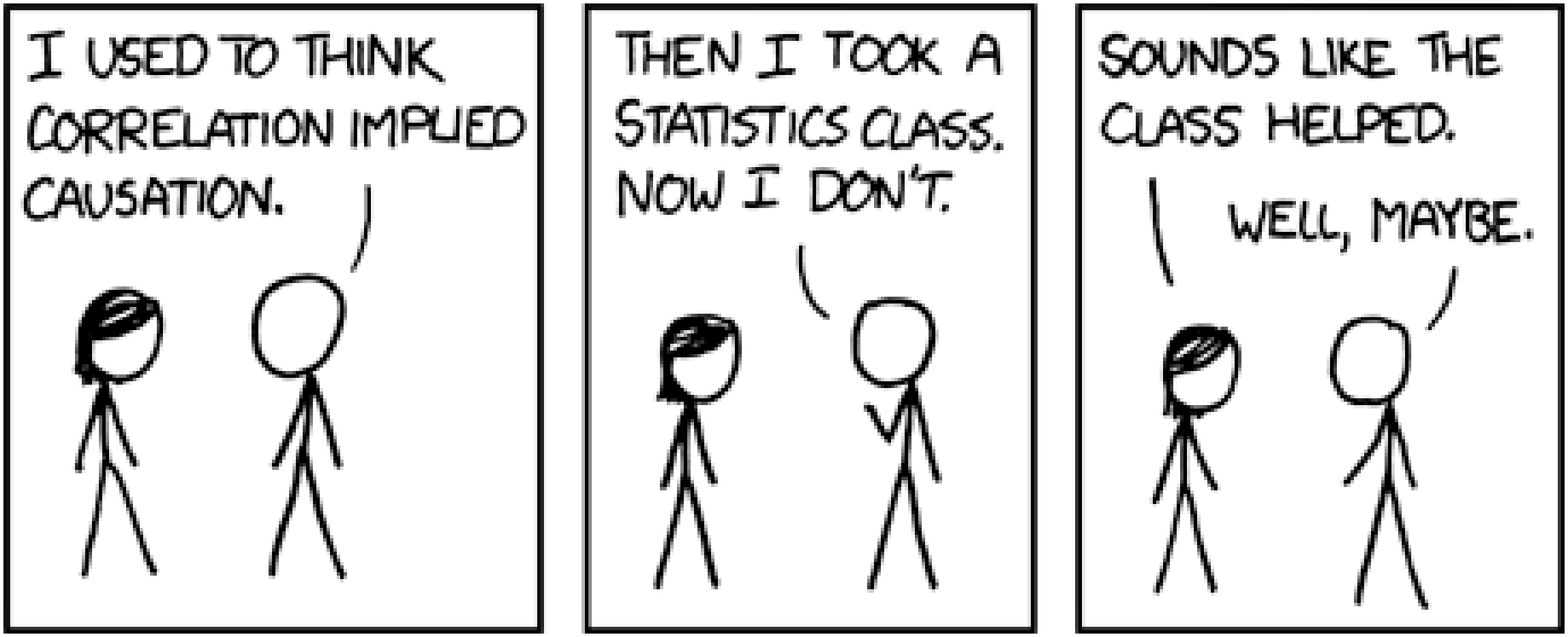
correlates with

Suicides by hanging, strangulation and suffocation

Correlation: 99.79% (r=0.99789126)



tylervigen.com


I USED TO THINK CORRELATION IMPLIED CAUSATION.
THEN I TOOK A STATISTICS CLASS. NOW I DON'T.
SOUNDS LIKE THE CLASS HELPED.
WELL, MAYBE.

EXPERIMENT

NOT AN ECONOMIC EXPERIMENT!

WHAT

WHAT

Research method that allows the researcher to ceteris paribus manipulate the independent variable and observe changes in the dependent variable.

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What is it good for?

What is it good for?

Theory testing

Policy wind tunnel

Corporate decision testbed

They’re fun to run


This is your captain speaking. This is a new plane and it’s never been tested, but our experts believe it should fly just fine.

WHAT

WHAT FOR

BEHAVIORAL ECON

(neo)classic Econ

- People want Max(u)
- u=$

Behavioral Econ

- Enter: Psychology

- Social
- Personality
- Cognitive

Behavioral Econ

- People want Max(u),
- u=$

Behavioral Econ

- People want Max(u), *but are not very good at it (heuristics, biases)*
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$$u_i(z, \boldsymbol{\mu}, s_j) = \pi_i(z) - \theta_i \left[\max_{s_i} \sum_{s'_j} \mu_i^1(s'_j|z) \pi_i\left(\zeta\left(s_i, s'_j\right)\right) - \pi_i(z) \right]$$

Be

- Pe
- u=

$$\pi_{MS} = p\left(2\bar{a} + 2q\left(\int_{2\bar{a}-2u}^{2\bar{a}+2u} (\gamma(\alpha_2))^2 \, d\alpha_2\right)\delta_W B\left(\frac{k_- - k_+}{k_- \cdot k_+}\right)\right) - 2w$$
$$+ 2\delta_F \int_{2\bar{a}-2u}^{2\bar{a}+2u} \int_{\alpha_2}^{2\bar{a}+2u} ph\alpha_1\gamma(\alpha_1)\, d\alpha_1\gamma(\alpha_2)\, d\alpha_2 - 2\delta_F w,$$
$$\pi_{MM} = 2(p\bar{a} - w) + 2\delta_F(ph\bar{a} - w),$$
$$\pi_{SS} = p\left(2\bar{a} + q\gamma\left(2\frac{\bar{a}}{h}\right)\delta_W B\left(\frac{k_- - k_+}{k_- \cdot k_+}\right)\right) - 2w$$
$$+ \delta_F\left(\int_{2\frac{\bar{a}}{h}}^{2\bar{a}+2u} ph\alpha_1\gamma(\alpha_1)\, d\alpha_1\right)$$
$$+ \delta_F\left(\int_{2\bar{a}-2u}^{2\frac{\bar{a}}{h}} 2p\bar{a}\gamma(\alpha_1)\, d\alpha_1\right) - 2\delta_F w,$$
$$\pi_{SM} = 2(p\bar{a} - w) + \delta_F(p(1+h)\bar{a} - 2w).$$

Denote by π_{tMS}, π_{tMM}, π_{tSS}, π_{tSM} expected period-t profit for job designs *MS*, *MM*, *SS*, and *SM*. The following lemma compares these profits:

RISK

RISK

- Vs. uncertainty?

RISK

- How much would you pay to play a 50/50 coinflip game where you win $100 or $0?

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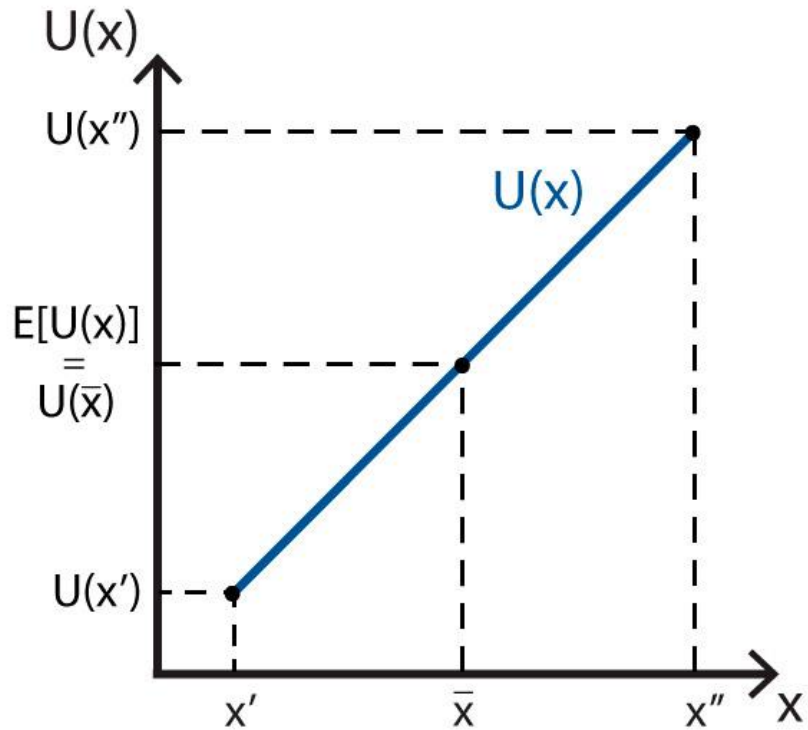
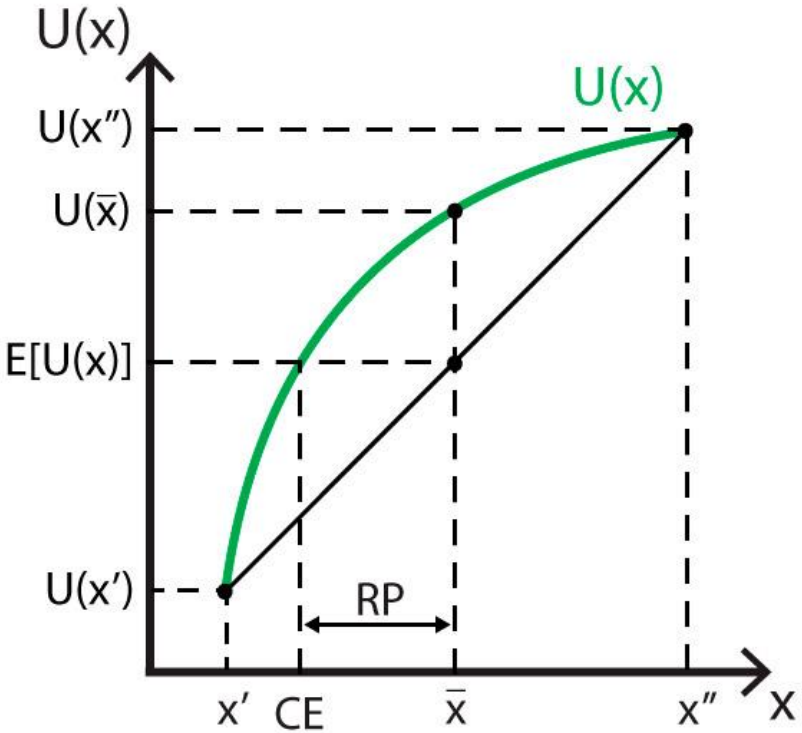


Risk neutral individual

$E[U(x)] = U(\bar{x})$

$CE = \bar{x}$

$0 = A$

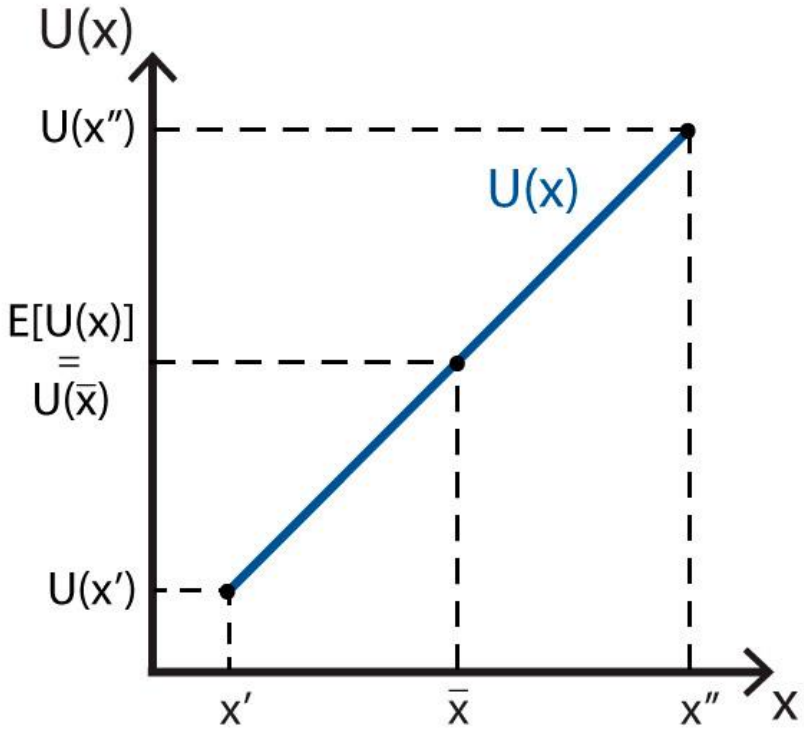


Risk averse individual

$E[U(x)] < U(\bar{x})$

$CE < \bar{x}$

$0 < A$



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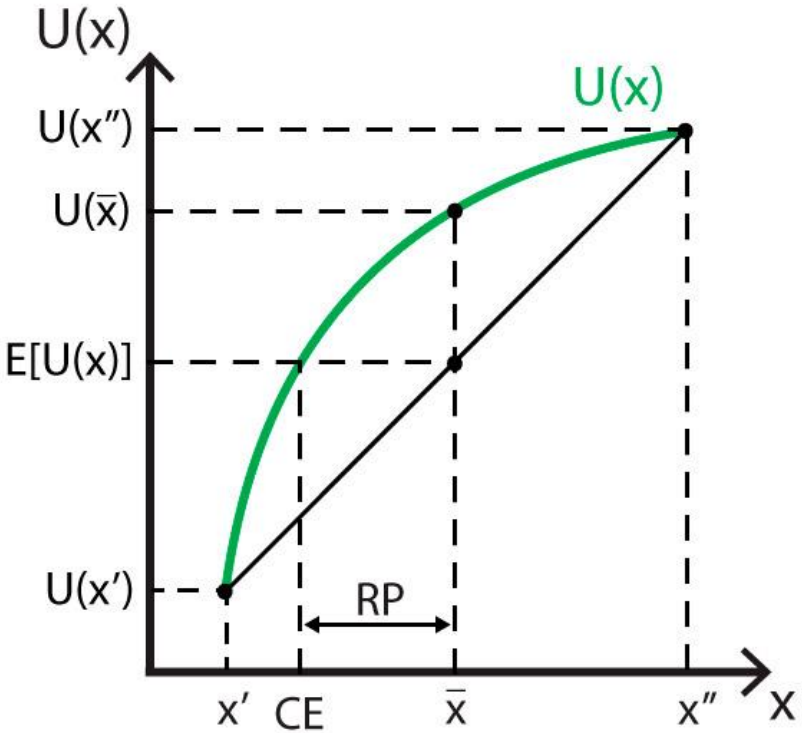

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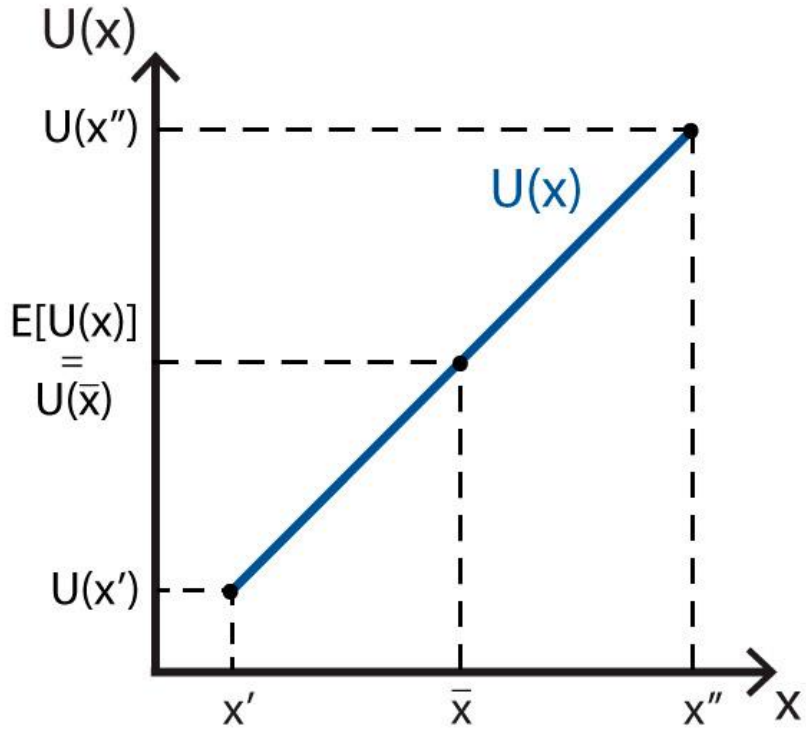

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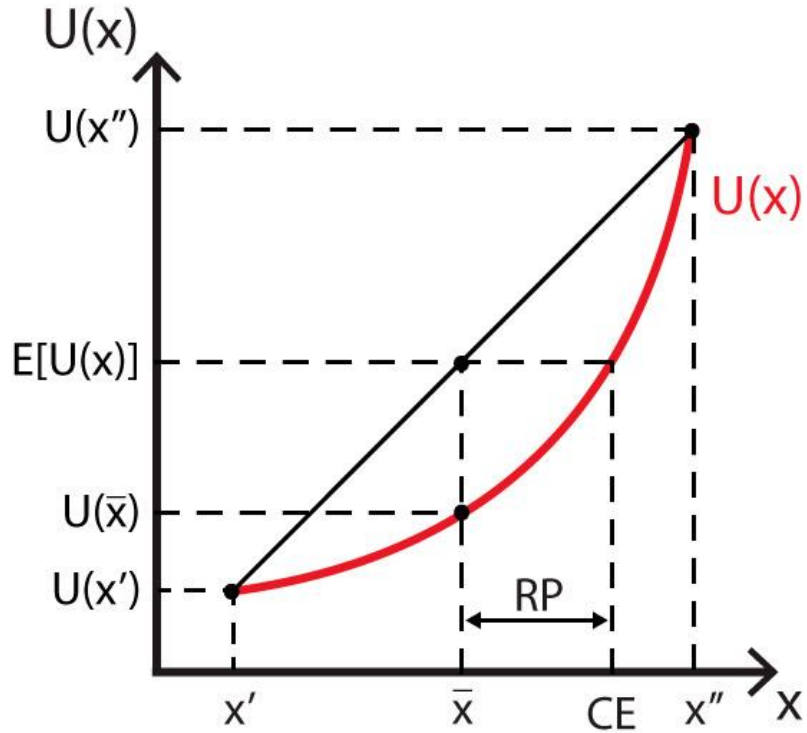


Risk loving individual

$E[U(x)] > U(\bar{x})$

$CE > \bar{x}$

$0 > A$

How to measure?

Multiple price lists

Baloon task

How to measure?

Multiple price lists

No.	Option A	Option B	Exp. payoff difference
1	100	1/2 of 300, 1/2 of 0	- 50
2	110	1/2 of 300, 1/2 of 0	-40
3	120	1/2 of 300, 1/2 of 0	-30
4	130	1/2 of 300, 1/2 of 0	-20
5	140	1/2 of 300, 1/2 of 0	-10
6	150	1/2 of 300, 1/2 of 0	0
7	160	1/2 of 300, 1/2 of 0	10
8	170	1/2 of 300, 1/2 of 0	20
9	180	1/2 of 300, 1/2 of 0	30
10	190	1/2 of 300, 1/2 of 0	40

expected utility behaviors where people evaluate probabilities non-linearly.

The resulting MPL is contained in Table 4, where an individual switching

How to measure?

Baloon task

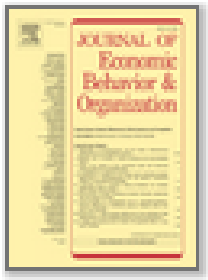
PAPERS

Who is (relatively) more risk averse?

ELSEVIER

Journal of Economic Behavior & Organization

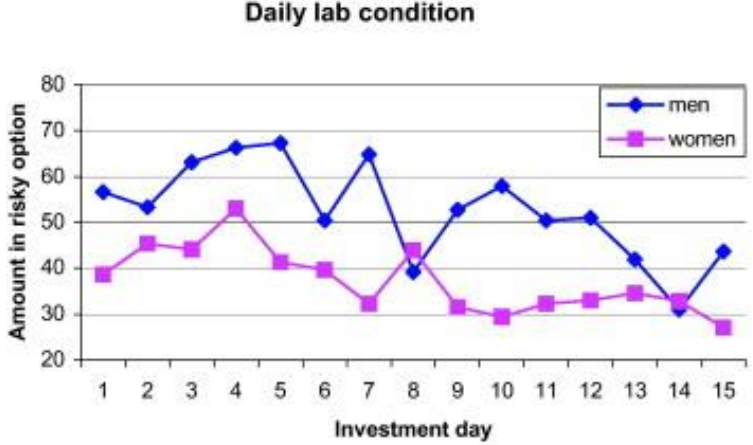
Volume 83, Issue 1, June 2012, Pages 50-58

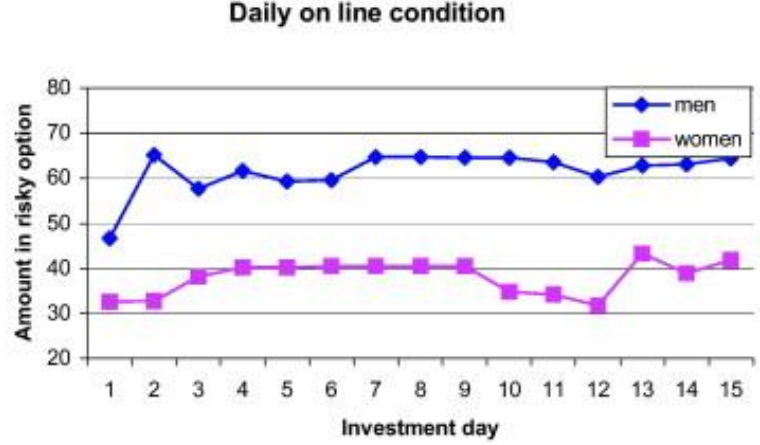


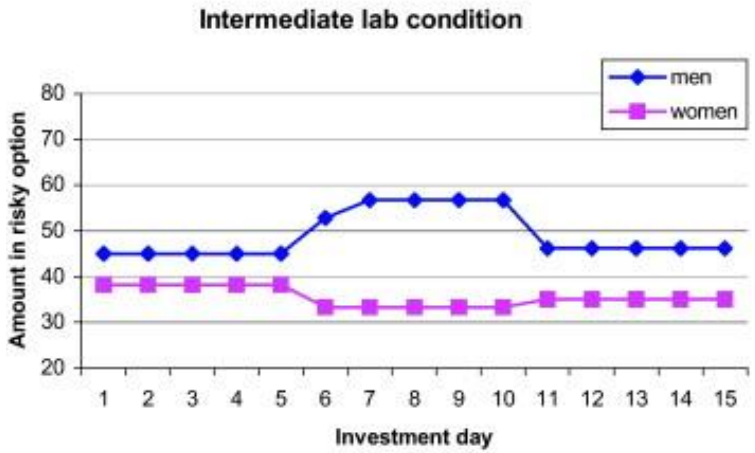
Strong Evidence for Gender Differences in Risk Taking

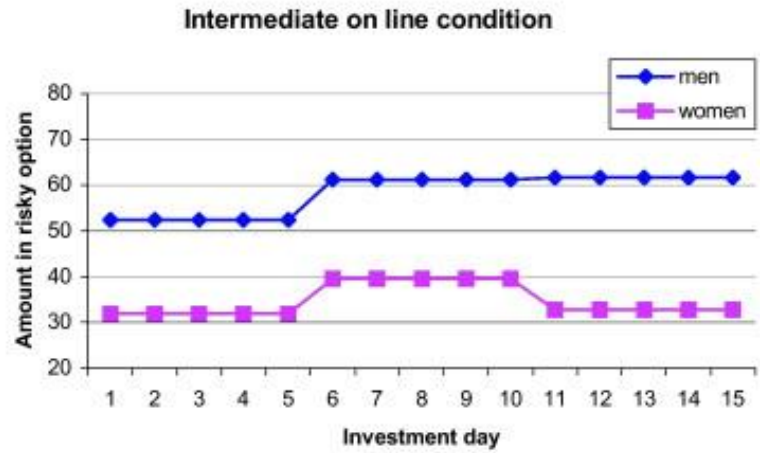
Gary Charness [a] ✉, Uri Gneezy [b] ✉

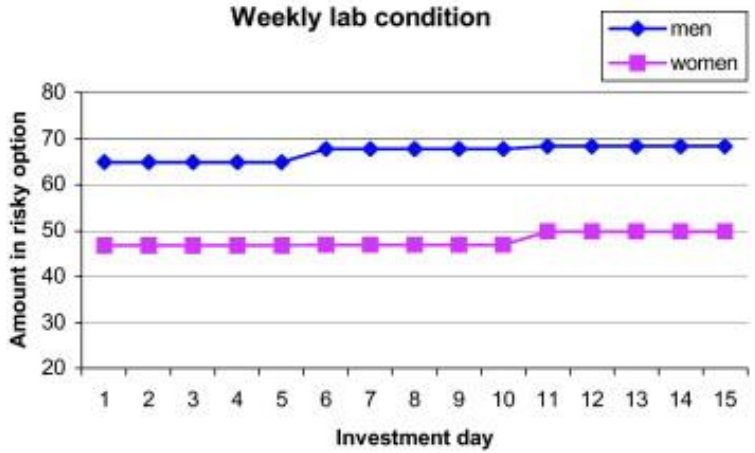
Show more

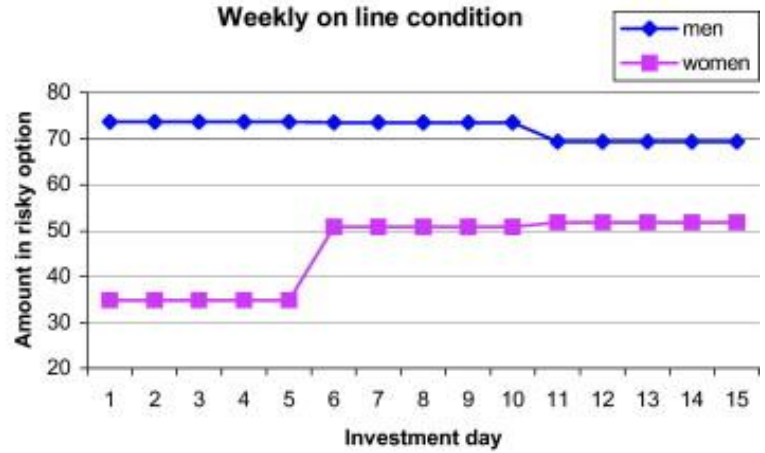

Daily lab condition
Amount in risky option
Investment day
men
women


Daily on line condition
Amount in risky option
Investment day
men
women


Intermediate lab condition
Amount in risky option
Investment day
men
women


Intermediate on line condition
Amount in risky option
Investment day
men
women


Weekly lab condition
Amount in risky option
Investment day
men
women

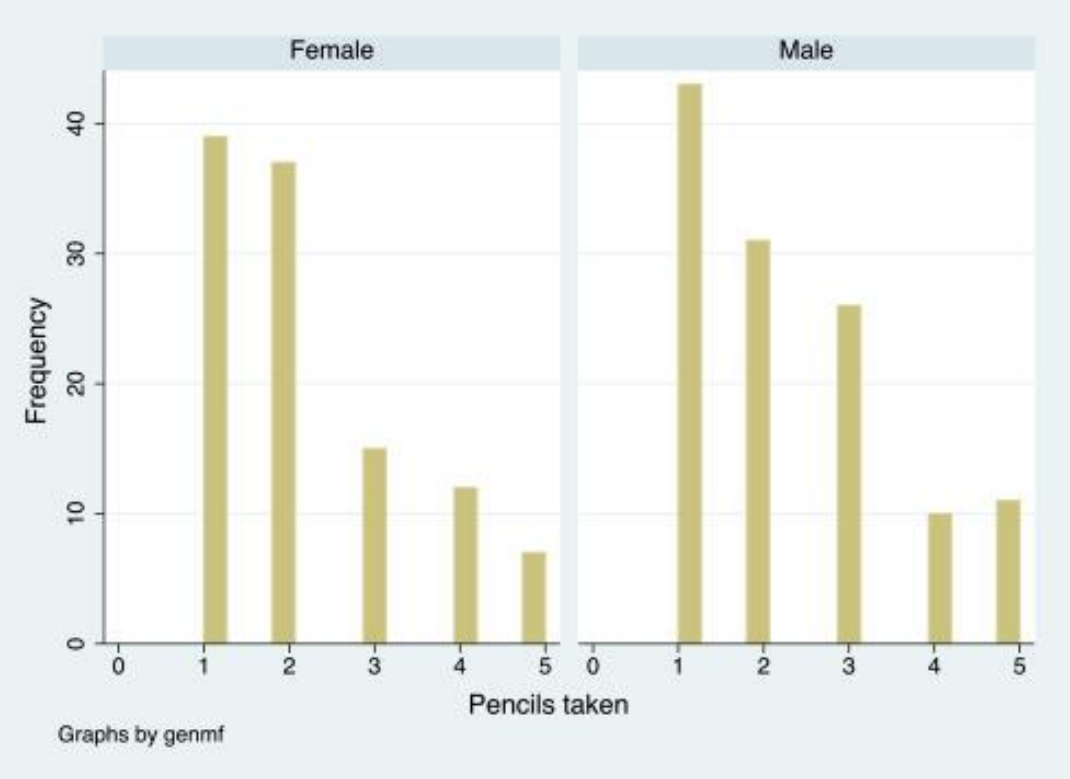

Weekly on line condition
Amount in risky option
Investment day
men
women

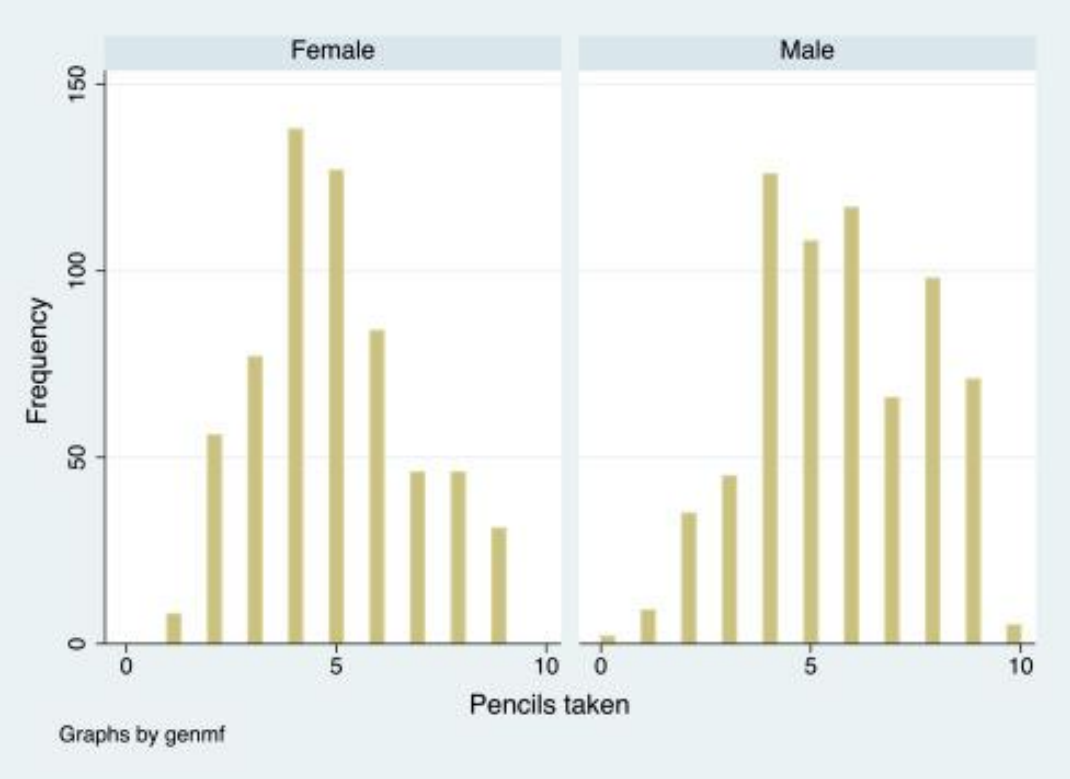
Gender gap in risk preferences emerges with age

Gender gap in risk preferences emerges with age

LEFT: children

RIGHT: adolescents





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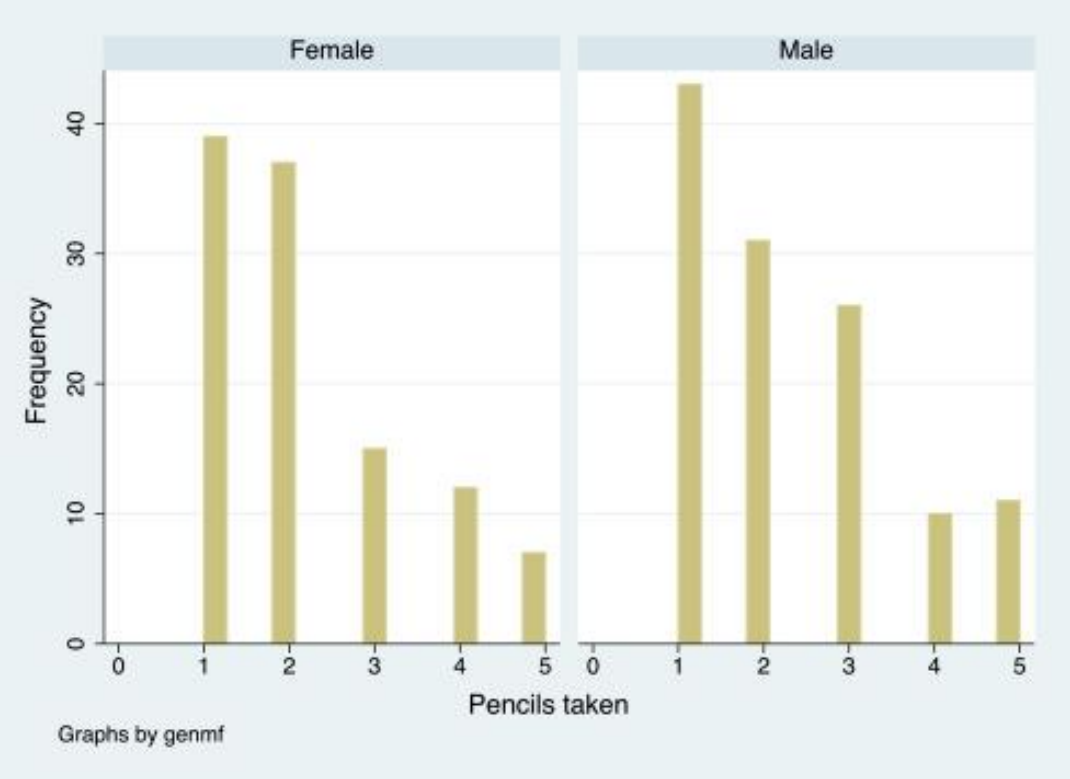

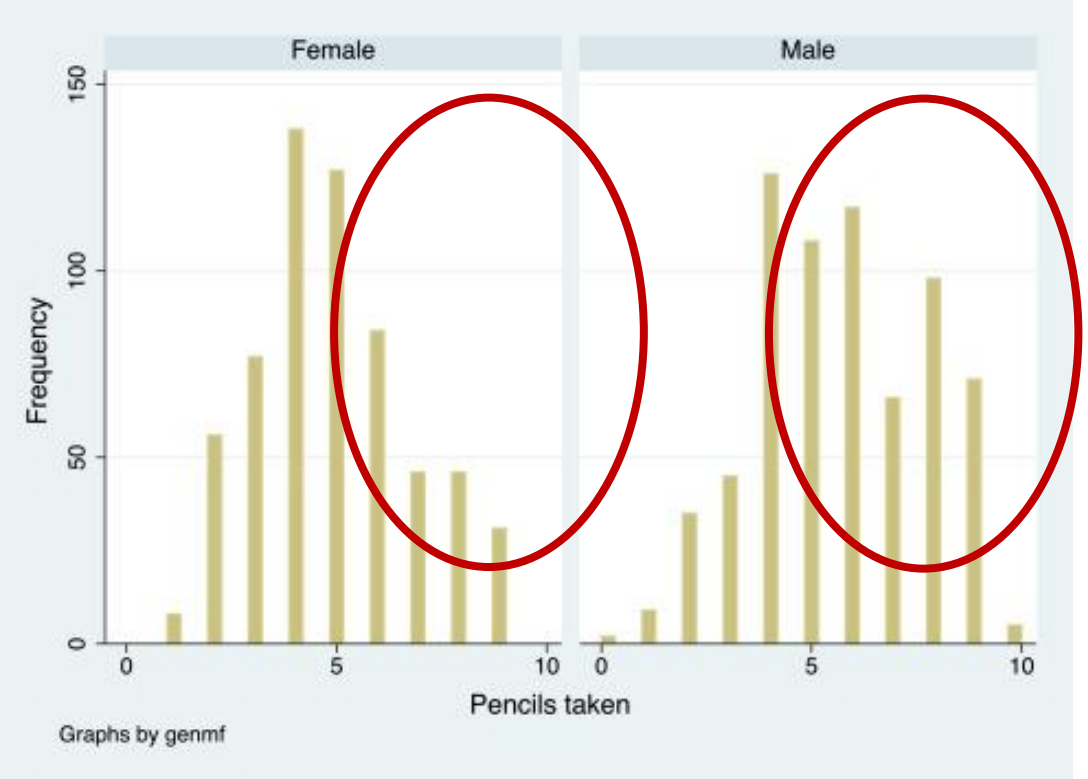

What else is there?

2-1-2016

Arousal and Economic Decision Making

Salar Jahedi
RAND Corporation

Cary Deck
Chapman University

Dan Ariely
Duke University

2.2 Methods

Participants were seated at partially enclosed cubicles to ensure that they could not observe or interact with others. Fifty-three people were assigned to the neutral image condition and 91 were assigned to the arousal image condition. Neutral images included 80 pictures of everyday objects such as office supplies, tiles, and housewares. Arousal images consisted of 80 explicit images of women and heterosexual couples engaging in various sexual acts. Eight of the arousing images were selected from the Center for the Study of Emotion and Attention at the University of Florida's International Affective Picture System (IAPS) database. The remaining images were downloaded from the internet.[4]

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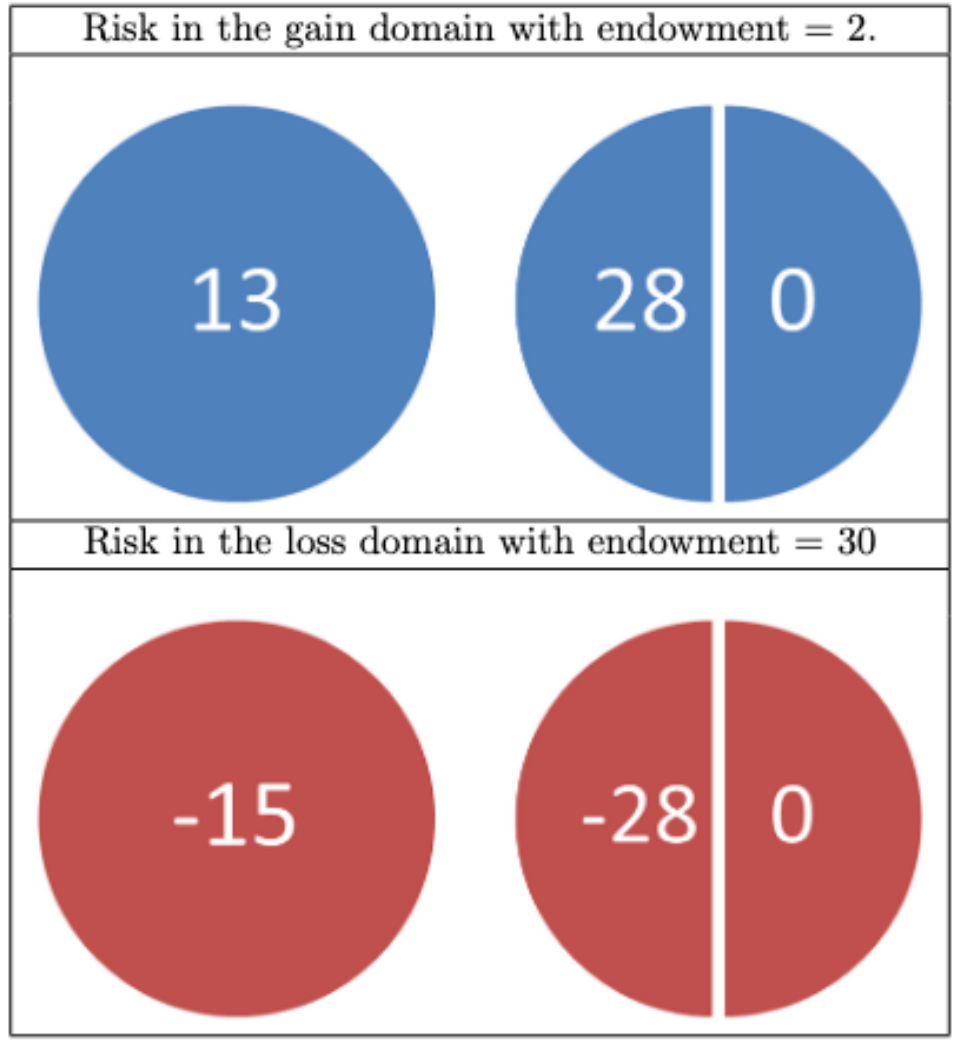


Figure 1: Sample Risk task in gains and losses

Risk in Gains: *higher expected value, could be safe or risky bet*					
Neutral	50.9%	(2.5%)	389	2.17	4.1
Arousal	60.9% (*)	(1.8%)	717	5.57	4.3

	Mean Performance	Std. Error	Observations	Image Rating	Seconds Spent
Addition: *percentage correct*					
Neutral	97.5%	(0.8%)	403	2.19	2.7
Arousal	97.7%	(0.6%)	730	5.49	2.6
Multiplication: *percentage correct*					
Neutral	80.8%	(1.9%)	417	2.20	5.6
Arousal	79.7%	(1.5%)	738	5.52	5.6
Risk in Gains: *higher expected value, could be safe or risky bet*					
Neutral	50.9%	(2.5%)	389	2.17	4.1
Arousal	60.9% (*)	(1.8%)	717	5.57	4.3
Risk in Losses: *higher expected value, could be safe or risky bet*					
Neutral	48.1%	(2.5%)	403	2.19	4.2
Arousal	48.4%	(1.9%)	686	5.45	4.2
Impatience: *larger amount of money, could be in the future or immediately*					
Neutral	62.5%	(1.7%)	834	2.17	3.4
Arousal	63.7%	(1.3%)	1440	5.5	3.4
Snack Choice: *choose the healthy snack*					
Neutral	48.1%	(1.7%)	896	2.17	3.6
Arousal	45.9%	(1.3%)	1487	5.51	3.7
Anchoring: *guess is within range of S-value*					
Neutral	44%	(1.7%)	886	2.19	5.7
Arousal	38.6% (**)	(1.3%)	1468	5.51	5.3

* and ** denote significance at the 10% and 5% level, respectively.

“One possible explanation for why we do not find a large effect of arousal on preferences is that our study uses real incentives, rather than hypothetical choices. It is possible that the incentive payments are large enough that respondents are motivated to make good decisions in spite of being exposed to arousing stimuli.

“One possible explanation for why we do not find a large effect of arousal on preferences is that our study uses real incentives, rather than hypothetical choices. It is possible that the incentive payments are large enough that respondents are motivated to make good decisions in spite of being exposed to arousing stimuli. Alternatively, it is possible that participants realize the effect that arousal might have on their decision making and take additional steps to self-regulate their decision making process.”

Generosity

Review of Economic Studies (2016) **83**, 587–628 doi:10.1093/restud/rdv051

Advance access publication 26 October 2015

Excusing Selfishness in Charitable Giving: The Role of Risk

CHRISTINE L. EXLEY
Harvard Business School

First version received December 2014*; final version accepted June* 2015 (*Eds.*)

Decisions involving charitable giving often occur under the shadow of risk. A common finding is that potential donors give less when there is greater risk that their donation will have less impact. While this behaviour could be fully rationalized by standard economic models, this article shows that an additional mechanism is relevant: the use of risk as an excuse not to give. In a laboratory study, participants evaluate risky payoffs for themselves and risky payoffs for a charity. When their decisions do not involve tradeoffs between money for themselves and the charity, they respond very similarly to self risk and charity risk. By contrast, when their decisions force tradeoffs between money for themselves and the charity, participants act more averse to charity risk and less averse to self risk. These altered responses to risk bias participants towards choosing payoffs for themselves more often, consistent with excuse-driven responses to risk. Additional results support the existence of excuse-driven types.

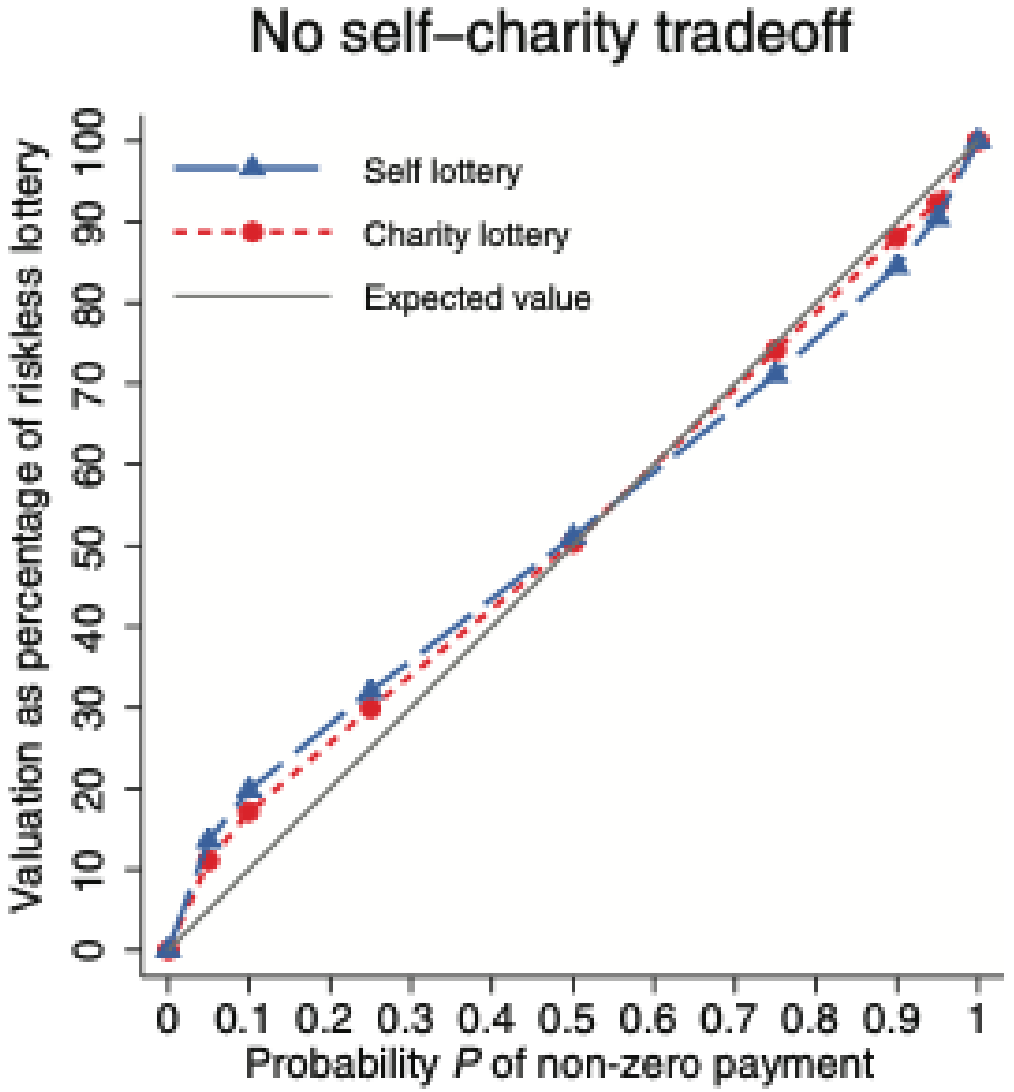
Key words: Charitable giving, Prosocial behaviour, Altruism, Risk preferences

JEL Codes: C91, D64, D81, H41

Option A (you receives)	Option B (the ARC receives)
You: $10 with probability 95%, and $0 otherwise	ARC: $0
You: $10 with probability 95%, and $0 otherwise	ARC: $1
You: $10 with probability 95%, and $0 otherwise	ARC: $2
You: $10 with probability 95%, and $0 otherwise	ARC: $3
You: $10 with probability 95%, and $0 otherwise	ARC: $4
You: $10 with probability 95%, and $0 otherwise	ARC: $5
You: $10 with probability 95%, and $0 otherwise	ARC: $6
You: $10 with probability 95%, and $0 otherwise	ARC: $7
You: $10 with probability 95%, and $0 otherwise	ARC: $8
You: $10 with probability 95%, and $0 otherwise	ARC: $9
You: $10 with probability 95%, and $0 otherwise	ARC: $10
You: $10 with probability 95%, and $0 otherwise	ARC: $11
You: $10 with probability 95%, and $0 otherwise	ARC: $12
You: $10 with probability 95%, and $0 otherwise	ARC: $13
You: $10 with probability 95%, and $0 otherwise	ARC: $14
You: $10 with probability 95%, and $0 otherwise	ARC: $15
You: $10 with probability 95%, and $0 otherwise	ARC: $16
You: $10 with probability 95%, and $0 otherwise	ARC: $17
You: $10 with probability 95%, and $0 otherwise	ARC: $18
You: $10 with probability 95%, and $0 otherwise	ARC: $19
You: $10 with probability 95%, and $0 otherwise	ARC: $20

Sure amount for me / lottery for me

Sure amount for charity / lottery for charity



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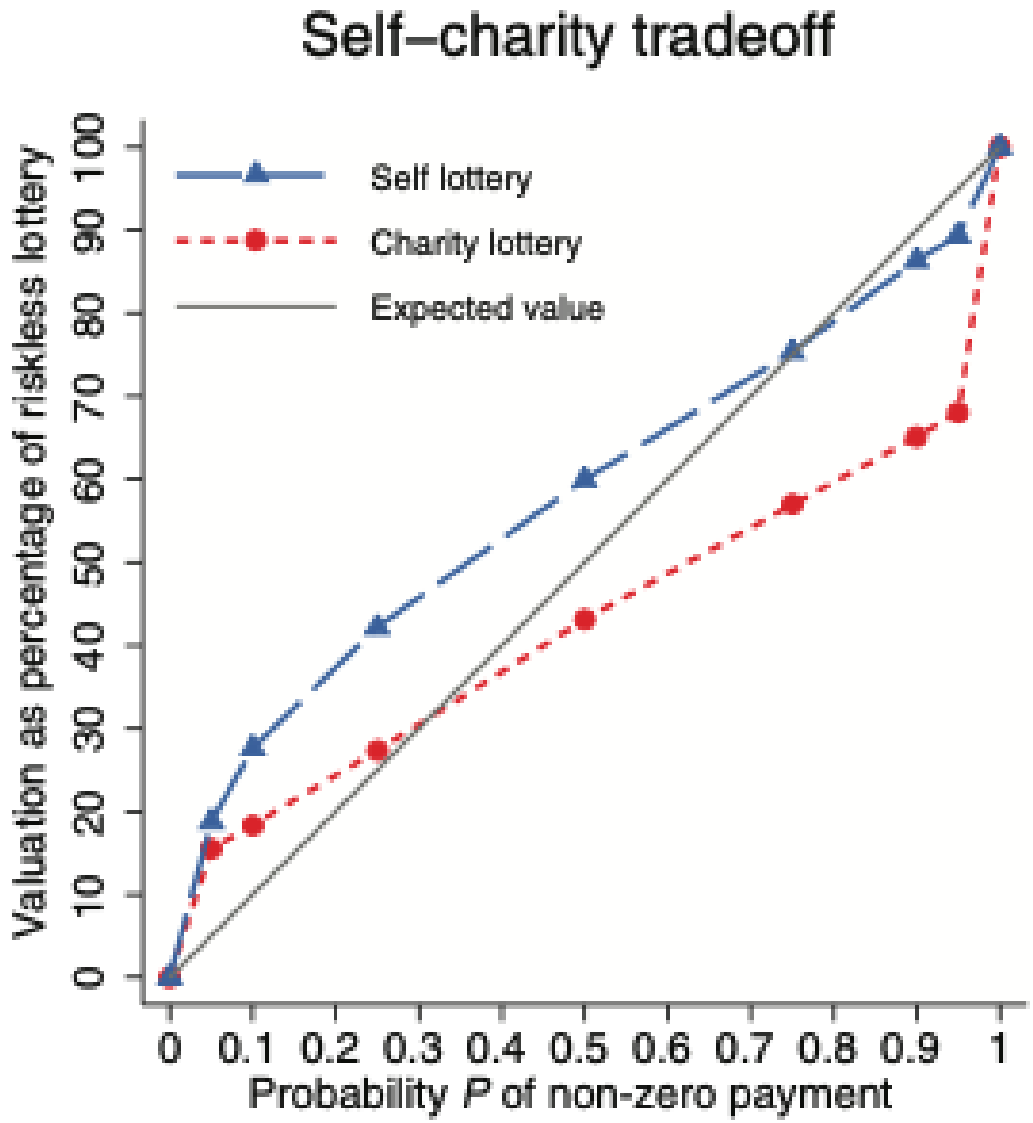

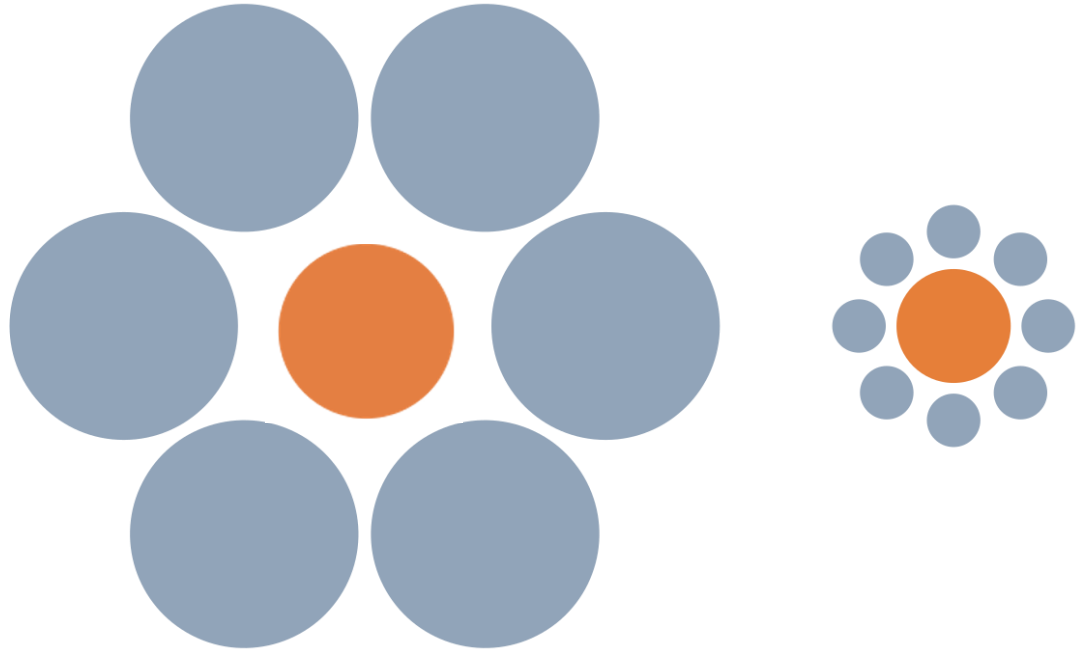

Context matters

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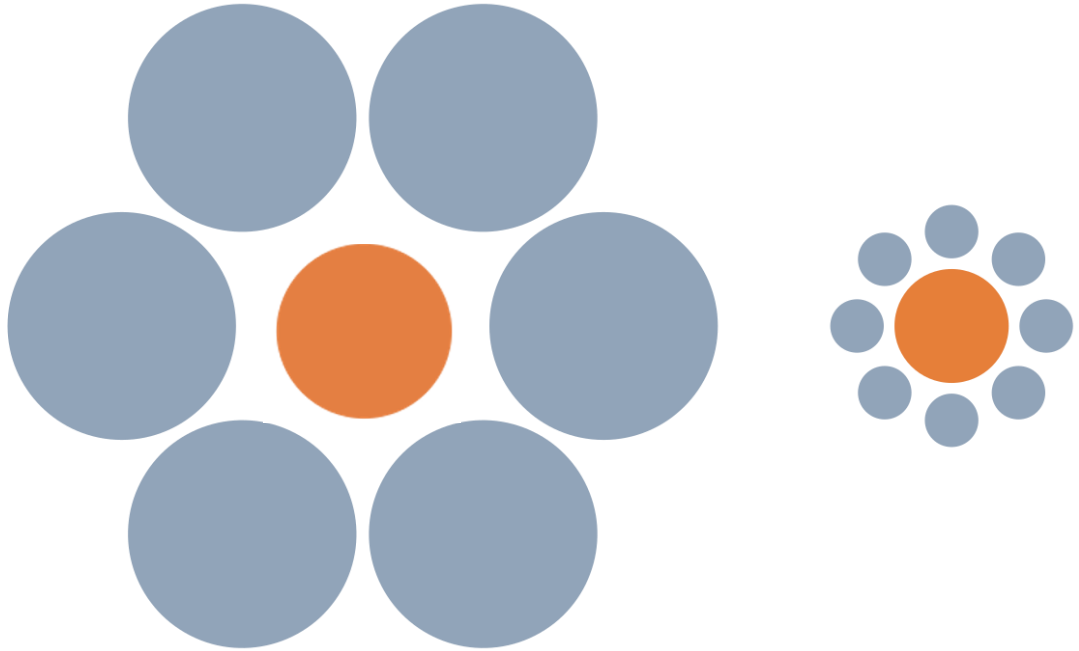
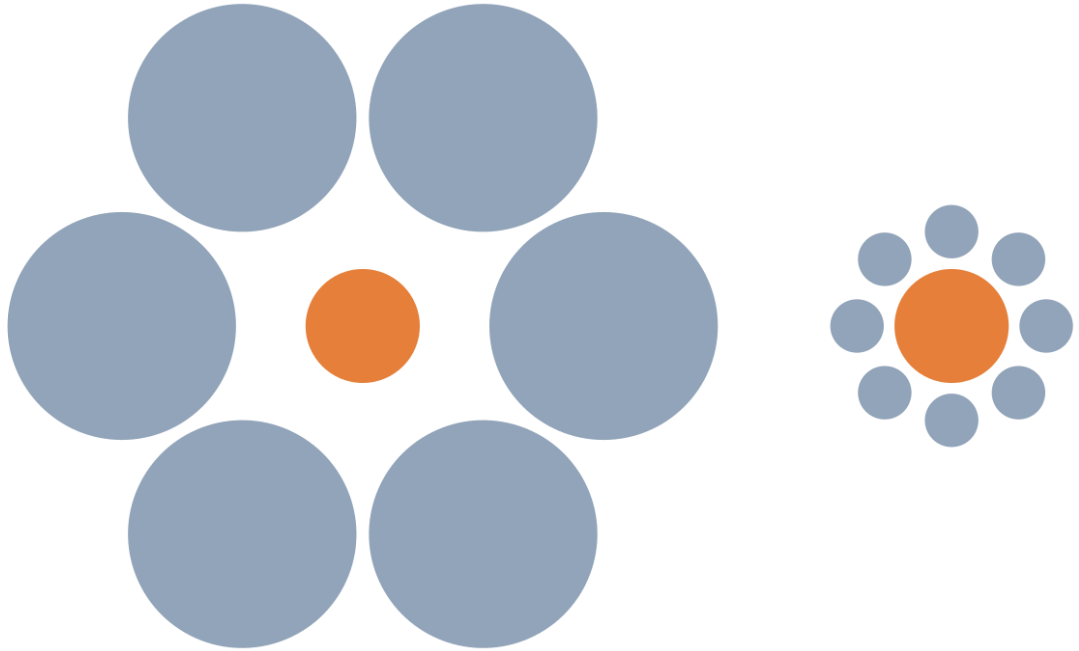


Context matters



Context matters