

Will People Believe Anything? The Psychology of Gullibility

1. Is jute...?

- a. a cereal crop
- b. a fiber crop
- c. an igneous rock
- d. a sedimentary rock

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Beliefs about “First Instincts”

- **Among Students:** Approximately 3/4 of college students believe that changing answers usually lowers test scores (Mathews, 1929; Foote & Belinky, 1972; Lynch & Smith, 1975; Mueller & Shwedel, 1975; Balance, 1977; Smith, White, & Coop, 1979).
- **Teachers:** 55% of faculty surveyed at Texas A&M believe that going against one’s initial answer lowers test scores (Benjamin, Cavell, & Shallenberger, 1984).
- **Test Preparation Guides:** “Exercise great caution if you decide to change an answer...experience indicates that many students who change answers change to the wrong answer” (from *A systematic approach to the GRE*, 1999)

Beliefs about “First Instincts”

- **Us:** www.socialpsychology.org advises students to “change only those answers that are *clearly* mistakes” because “first instincts are usually correct.”

The Truth about “First Instincts”

- The vast majority of answer changes are from incorrect to correct, and most people who change their answers usually improve their test scores. (*Archer, 1962; Bath, 1967; Bernen, 1939; Clark, 1962; Copeland, 1972; Crocker, 1980; Davis, 1975; Foote, 1972; Geiger, 1997; Hill, 1937; Jacobs, 1972; Jarrett, 1938; Johnston, 1975; Lamson, 1935; Lehman, 1928; Lowe, 1929; Lynch, 1975; Mallinson, 1956; Mathews, 1929; Mueller, 1975; Pascale, 1974; Range, 1982; Reile, 1952; Reiling, 1972; Schwarz, McMorris, & DeMers, 1991; Sitton, 1980; Skinner, 1983; Smith, 1979; Vidler, 1980; Vispoel, 1998*).
- This is true regardless of whether the test is multiple-choice or true-false, achievement or aptitude, timed or un-timed, computer or pencil-and-paper.

An airline on a routine commuter flight crashed in a remote, uninhabited area. One passenger survived the flight with only minor injuries, and set out to walk to safety. He died of exposure before making it all the way. How much should his family be awarded in compensation?

\$538,000 if he made it to within 75 miles of civilization

\$700,000 if he made it to within 1/4 mile of civilization

Causes of Questionable and Erroneous Beliefs

We “see” too much order in random events

We test propositions by looking for evidence that supports them

We are “of two minds” about nearly everything

Seeing Order in Random Stimuli

1998 Major League Baseball season broken down into 12 two week periods (Rob Neyer, ESPN.com)

For each segment, 2 lists of players

- those who hit less than .200
- those who hit .350 or higher

For the “hot” group (14,294 at bats):

- they hit .391 during their hot streak
- they hit .291 the previous season

What did they hit during the next 2 weeks?

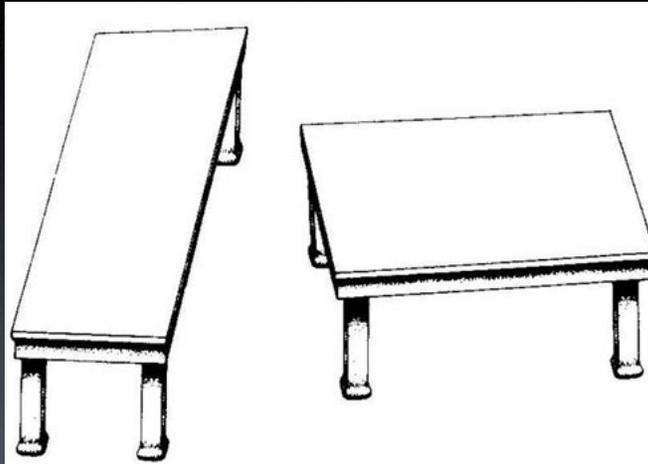
- .288

What did they hit the day after?

- .291

OXXXOXXXOXXOOOXOOXXOO

Streak shooting	61%
Chance shooting	33%
Alternate shooting	6%





Column / The Technologist
Steven Levy

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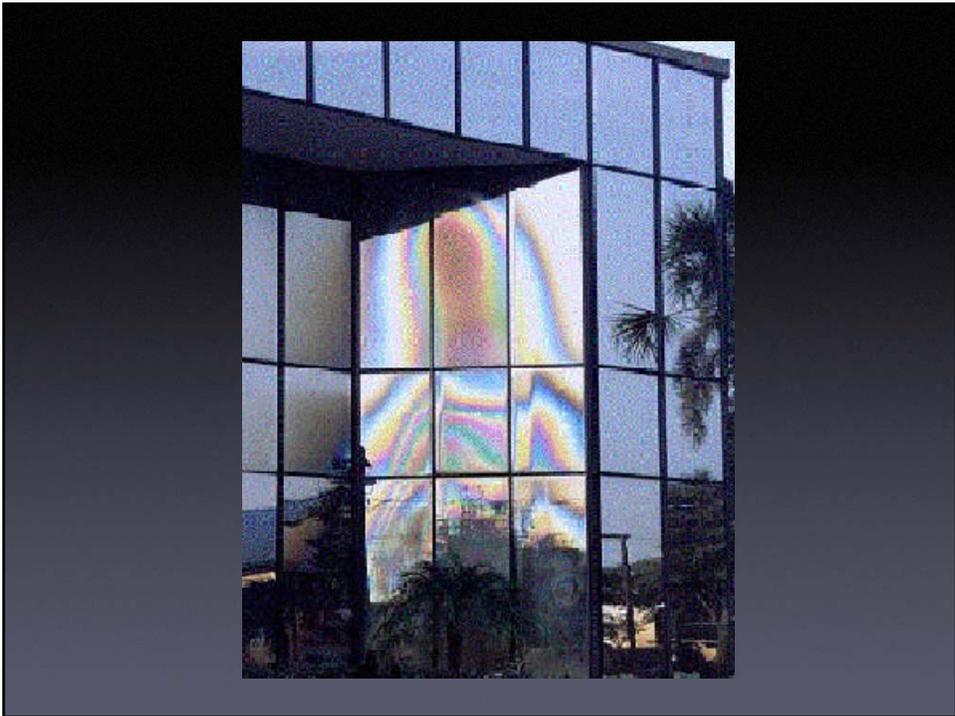
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Does Your iPod Play Favorites?

My first iPod seemed to have a fondness for Steely Dan, while other artists were sent into exile.

Is an ipod on shuffle truly random?
September 9, 2005 5:49 AM

Is an ipod on shuffle truly random?







Five Stages of Reaction to Impending Death (Kubler-Ross)

- Denial
- Anger
- Depression
- Negotiation
- Acceptance

Study	Patterns of Grieving			
	Hi-low “Normal”	Low-low “Absent”	Hi-hi “Chronic”	Low-hi “Delayed”
1988 - SIDS (Wortman)	41%	26%	30%	2%
1973 - Spouse (Bornstein)	29%	56%	13%	1%
1982 - Spouse (Vachon)	41%	30%	26%	2%
1986 - Spouse (Lund)	9%	78%	8%	5%
1986 - Spouse (Zisook)	20%	65%	15%	0%

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S asked about the relationship between working out and...

<u>Information</u>	<u>Winning</u>	<u>Losing</u>
# of times worked out and won	.75	.55
# of times worked out and lost	.55	.85
# of times did not work out and won	.35	.20
# of times did not work out and lost	.10	.35

John Holt, *Why Children Fail*

“They still cling stubbornly to the idea that the only good answer is a yes answer. If they say, ‘Is the number between 5,000 and 10,000?’ and I say yes, they cheer; if I say no, they groan, even though they get exactly the same amount of information in either case”

Imagine that you serve on the jury of an only-child custody case following a messy divorce. The facts of the case are complicated, and you must base your decision on the following information. To which parent would you award custody of the child?

Parent A

average income
average health
average working hours
stable social life
reasonable rapport with
child

Parent B

above average income
minor health problems
lots of work-related travel
extremely active social life
very close relationship
with child



Imagine that you serve on the jury of an only-child custody case following a messy divorce. The facts of the case are complicated, and you must base your decision on the following information. To which parent would you deny custody of the child?

Parent A

average income
average health
average working hours
stable social life
reasonable rapport with
child

Parent B

above average income
minor health problems
lots of work-related travel
extremely active social life
very close relationship
with child



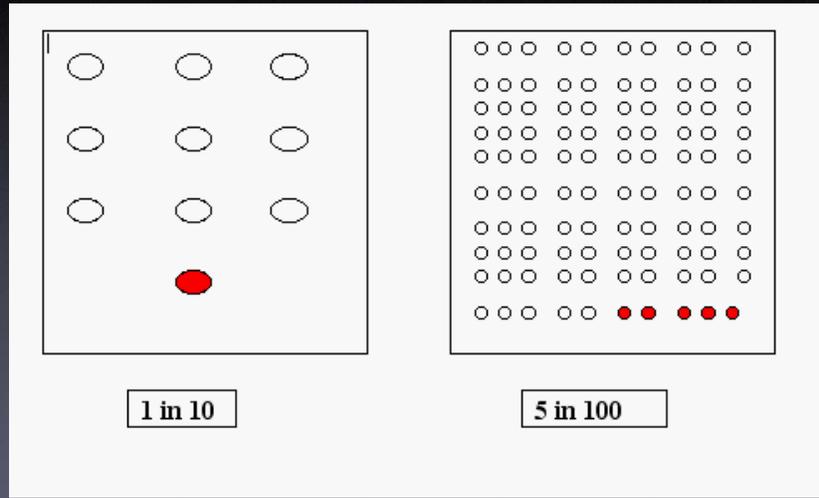
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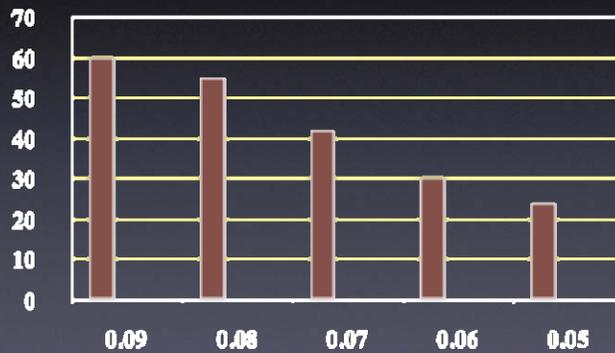
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Which bet would you choose?



Percentage of Participants Choosing the Large BOX (Odds with small box = 10%; with large box = value on x-axis)



Two Systems of Reasoning

- “Intuitive”
 - Automatic
 - Effortless
 - Rapid & Parallel
 - Concrete
 - Associative
- “Reflective”
 - Controlled
 - Effortful
 - Slow & often serial
 - May be abstract
 - Rule-based

How accurate are the following sayings?

1 = not accurate at all

9 = very accurate

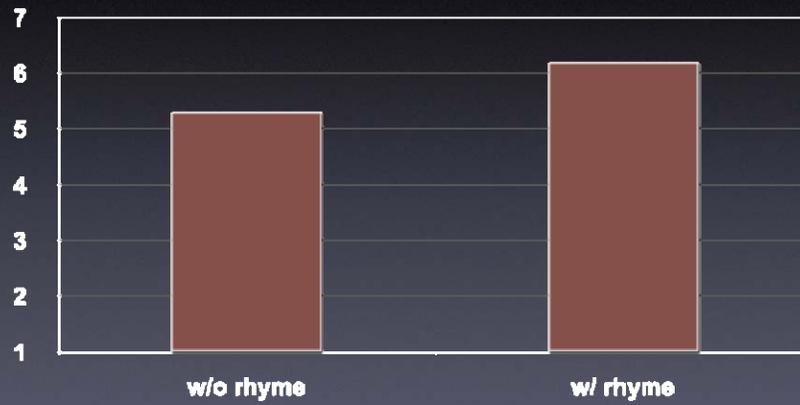
“Woes unite foes”

vs. “Woes unite enemies”

“What sobriety conceals, alcohol reveals”

vs. “What sobriety conceals, alcohol unmasks”

Perceived Accuracy of Sayings that Do or Do Not Rhyme





Getting Called On In Class

60 participants asked to imagine... "you are in a large lecture with a few hundred students and you are sitting in the middle section, a little more than half-way back in the room. The professor asks a question about the readings, but no one raises his or her hand to answer."

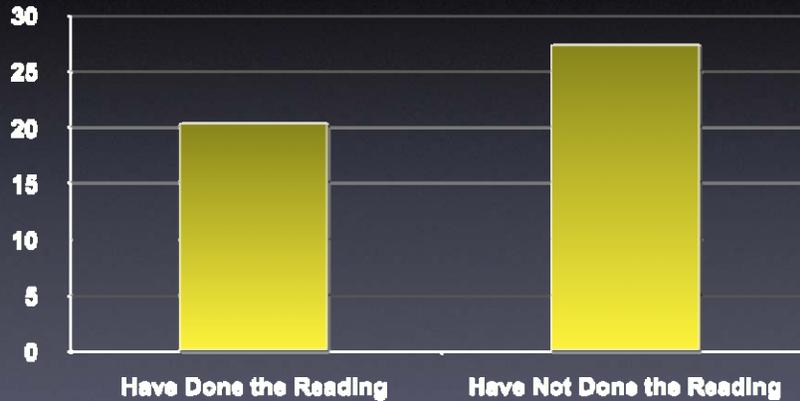
You have not done the reading
or you have done the reading...

"How likely do you believe it is
that the professor will call on you?"



Likelihood of Getting Called On

Percent

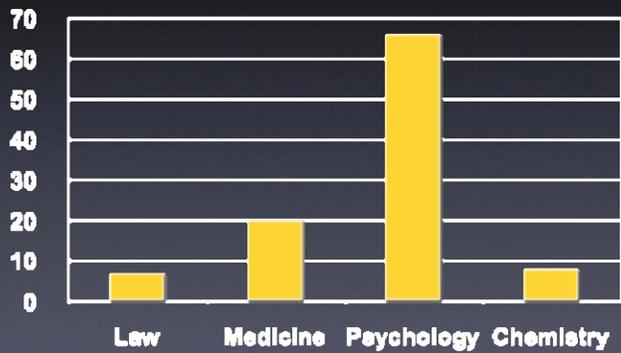


The promoters of a local Weight Watchers organization have claimed that, on average, their members lose fifteen pounds during their first three months of attending meetings. To test this claim, a public health nurse kept records of weight lost by every new member who joined that Weight Watchers branch during a recent year. Of the 138 people who started to attend meetings, 81 kept attending for at least three months. And, indeed, the average amount of weight lost by these people was 14.7 lbs.

Based on these facts, what is the most accurate assessment we can make of the likely success of the program?

- a) The program is likely to help most people who enroll
- b) The program is likely to help half or fewer of the people who enroll
- c) Those who enroll in the program and stick to it will, on average, be better off at the end, although it is impossible to say whether the techniques used in the program are effective
- d) Those who enroll in the program and stick to it will, on average, be better off at the end because the techniques used in the program are effective.

Percent Improvement



Final Score

