

Brookings Institution

Decision Making Traps

Presented by:

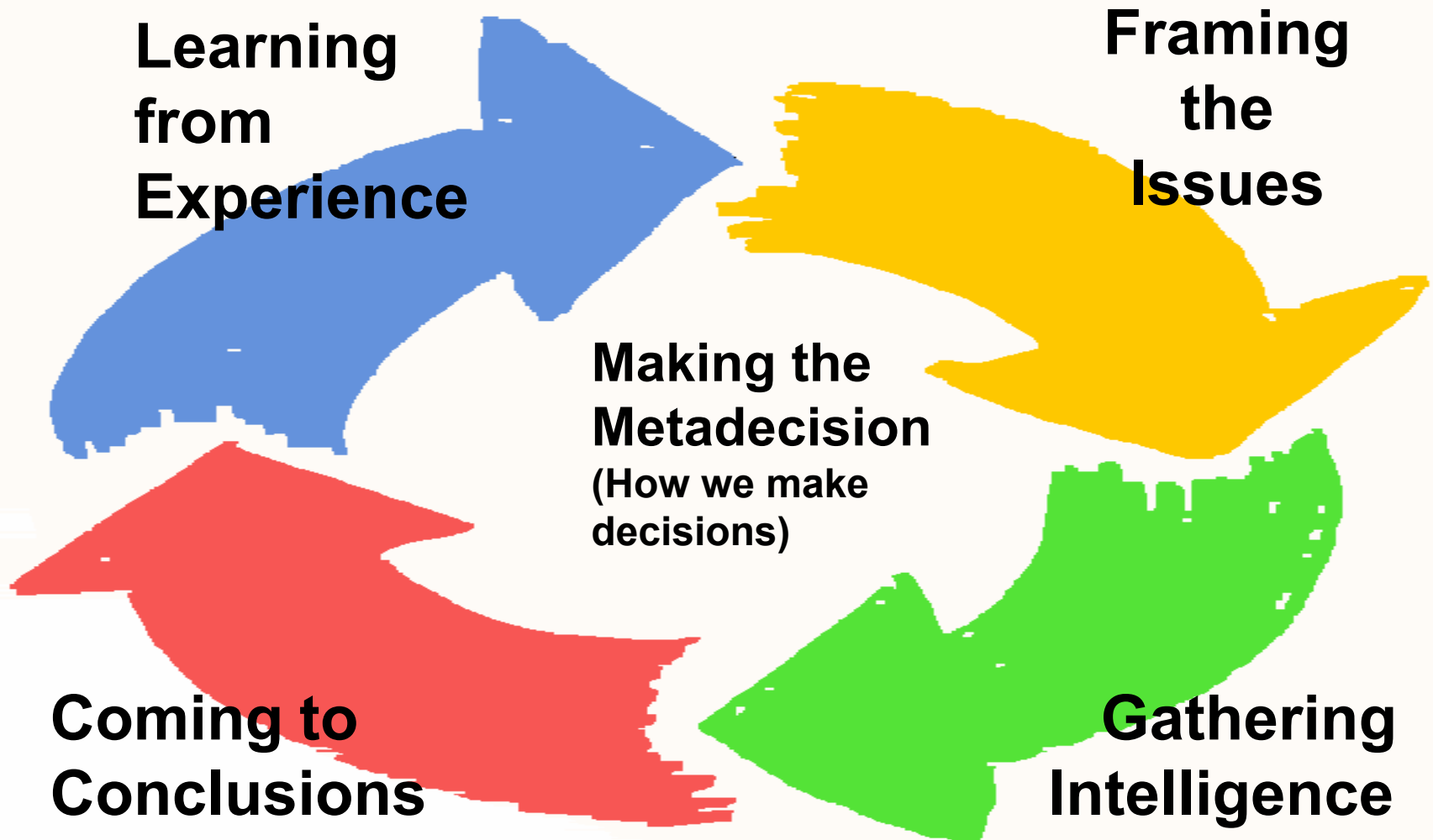
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The Decision Process



Step One

Frame it Right

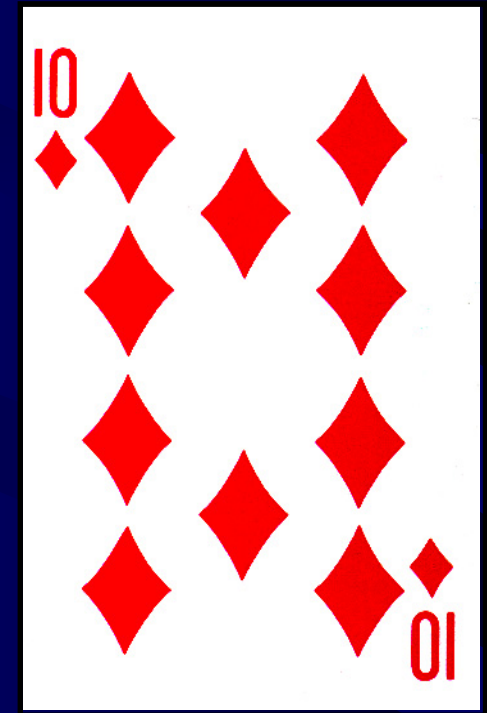
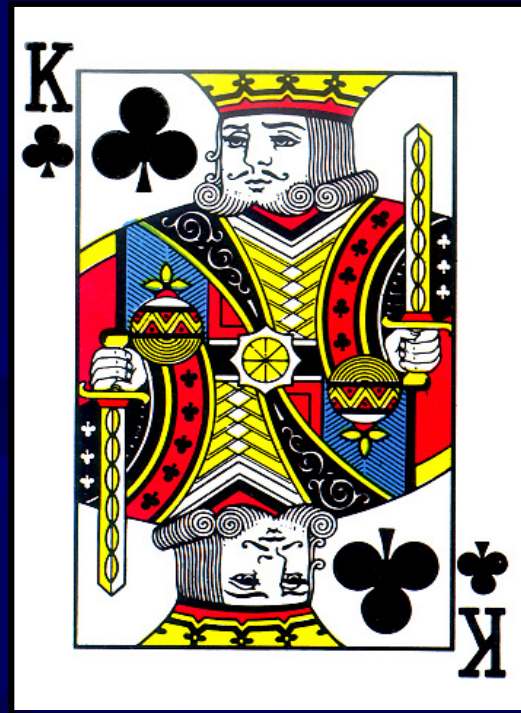
Definition of Framing

- Defining what must be decided
- Structuring and focusing the question
- Narrowing or expanding the issues
- Determining the criteria that will cause you to prefer one option over another
- Being sensitive to the perspective taken

Try to Remember

- The next slide contains three cards
- They will be shown very briefly (3 secs)
- Just try to remember what the cards are

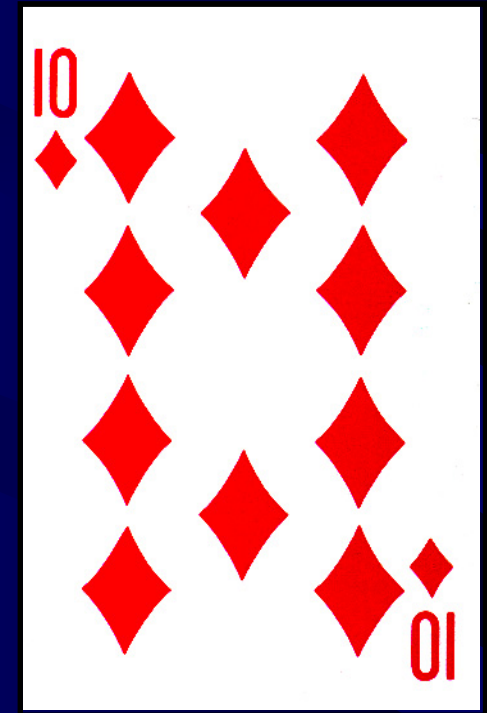
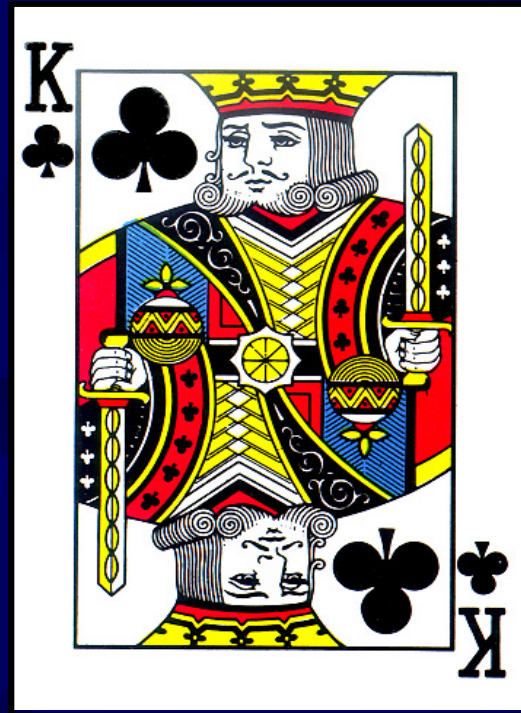
Remember These Three Cards



Was One of the Cards

- **A King of Clubs?**
- **A Ten of Diamonds?**
- **A Jack of Hearts?**

These Were the Three Cards



Elements of A Frame

- Mental Boundaries
- Reference Points
- Yardsticks and Metrics
- Mental Imagery
- Highlights and Shadows

Will You See the Play?

Situation X: Imagine you have decided to see a play and bought a ticket costing \$100. You are about to enter the theater building and discover that somehow you have lost the ticket. The seat was not marked, you have no receipt and the ticket cannot be recovered or replaced in any way. Would you buy a new ticket for \$100?

Will You See the Play?

Situation Y: Imagine you have decided to see a play where admission is \$100 per ticket. As you enter the theater to buy your ticket you discover that you somehow lost a \$100 bill from your wallet. Would you still pay \$100 for a ticket to see the play?

GM's Frame (circa 1968)

- **GM is in the business of making money, not cars**
- **Success is the result of rapid adaptation, not technological leadership**
- **Cars are primarily status symbols: people want to upgrade**
- **The U.S. car market is isolated from the rest of the world**
- **Fuel will remain cheap and abundant**
- **The government is an enemy and so are unions**

Factory Closing Problem

Suppose that you are the head of a large manufacturing division belonging to a Fortune 500 company. Due to structural changes in the economy that seem irreversible, this division's factories are threatened with a partial, and possibly a complete, shutdown. They currently employ 600 workers. Your staff has identified the following two options.



You Have Two Options

If Alternative A is pursued, exactly 200 jobs will be saved.

If Alternative B is adopted, there is a one-third chance that 600 jobs will be saved and a two-thirds chance that zero jobs will be saved.

Which alternative do you choose? A or B



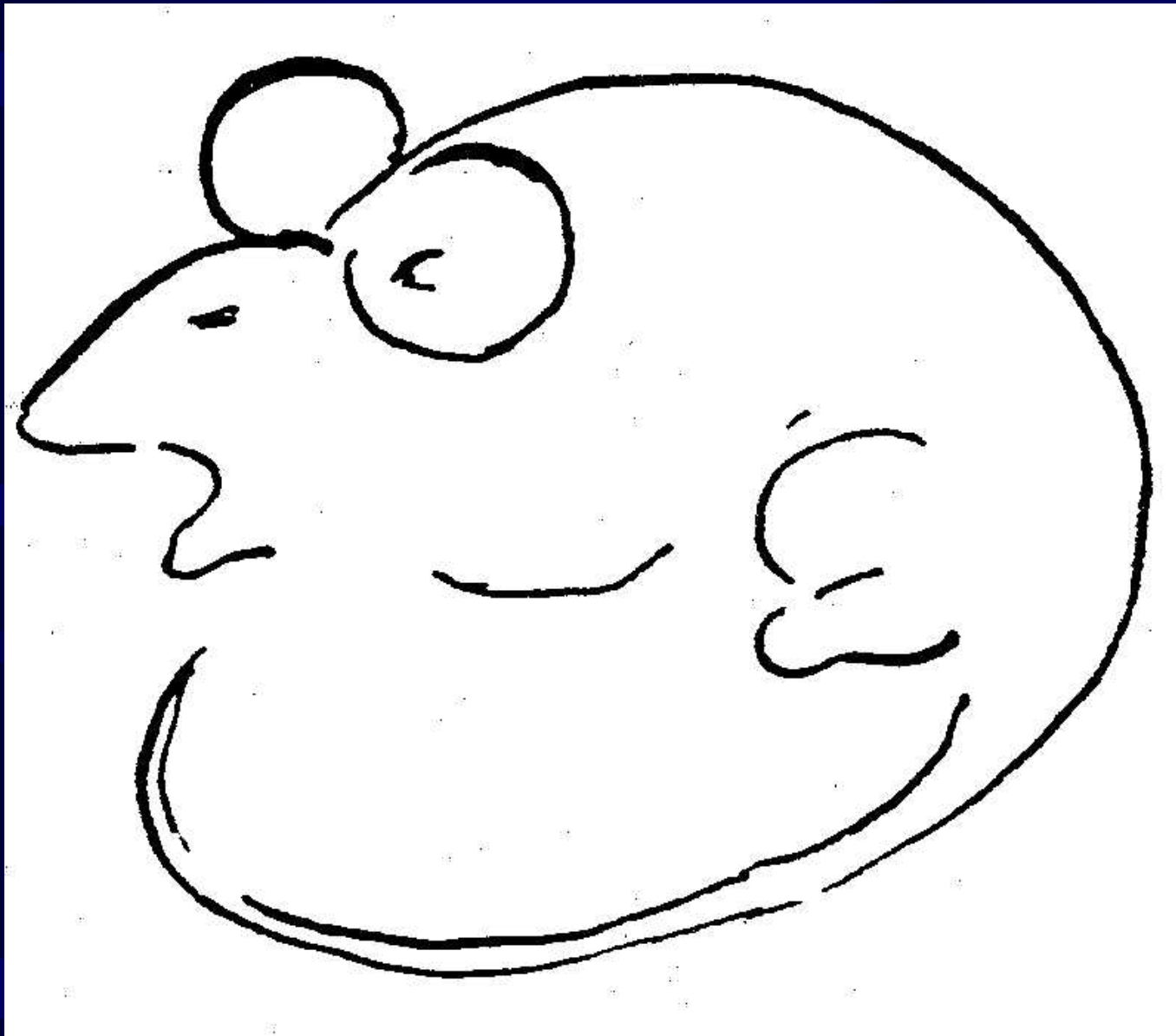
Factory Closing Version II

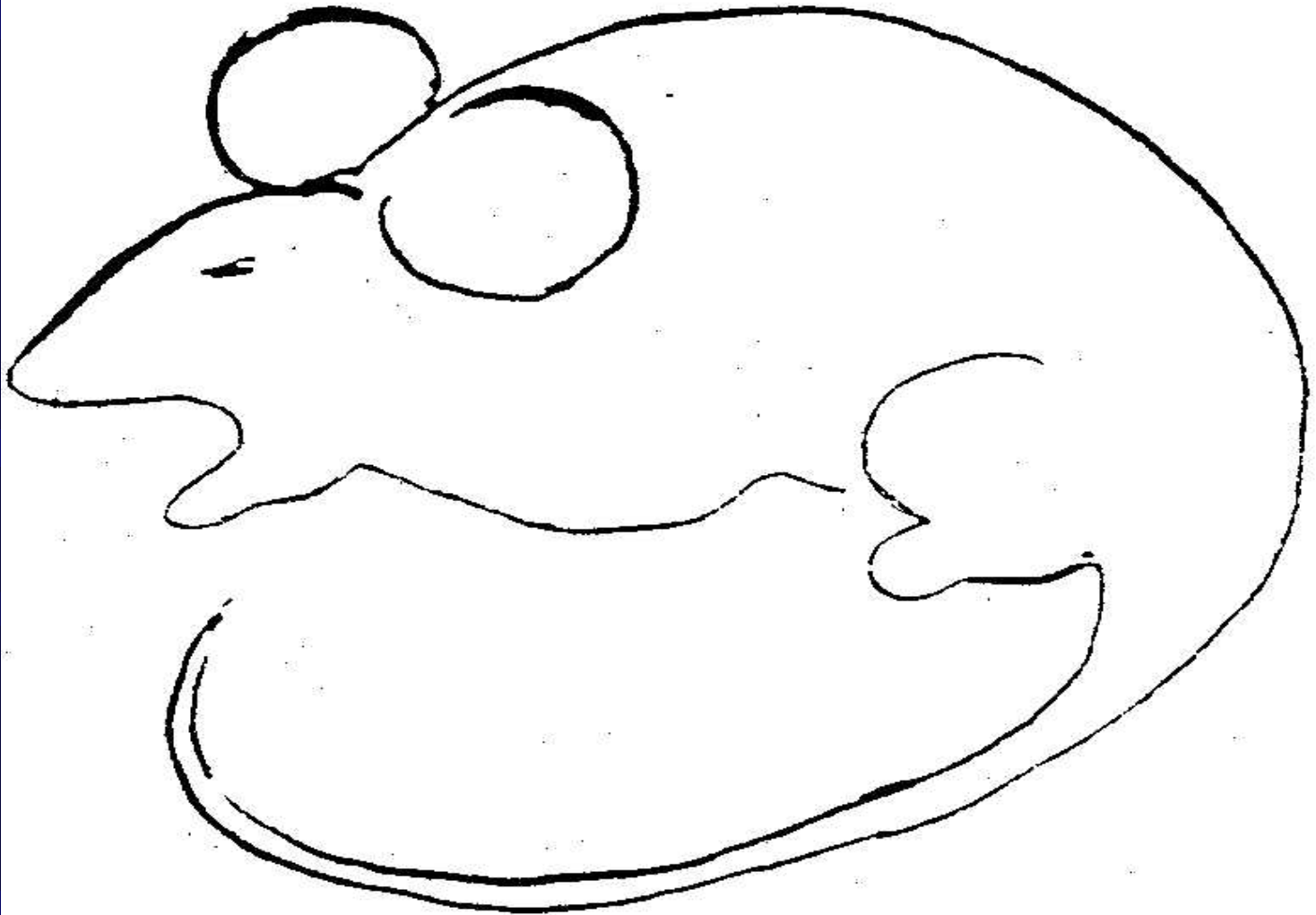
If Alternative A is pursued, exactly 400 jobs will be lost.

If Alternative B is adopted, there is a one-third chance that no jobs will be lost and a two-thirds chance that 600 jobs will be lost.

Which alternative do you choose? A or B











Key Framing Questions to Ask

- Are we solving the right problem?
- What are our implicit assumptions?
- How might others frame the issues?
- Are their links to other issues/concerns?
- How do we define and measure success?
- What constraints are we imposing?
- Can we find other, more creative, options?
- Who else should be or get involved?

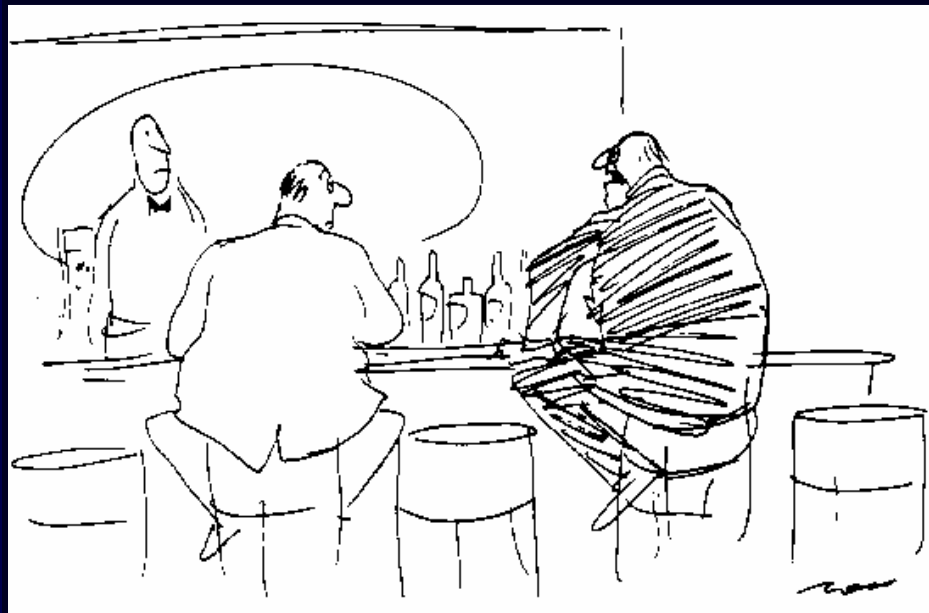
Step Two

Gather the Right Intelligence

Intelligence Gathering Traps

- **Overconfidence in our Judgment**
- **Overweighing the Available Information**
- **Anchoring Your Estimates Too Much**
- **Looking for Confirming Evidence**

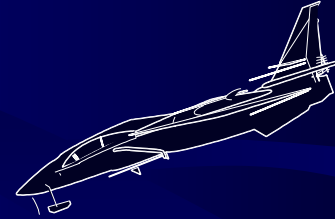
Overconfidence Defined



“What do you mean ‘Your guess is as good as mine’?
My guess is a hell of a lot better than your guess!”

(Source: Gary Larson, [The Farside Gallery](#) Chronicle Publishing Co., 1980)

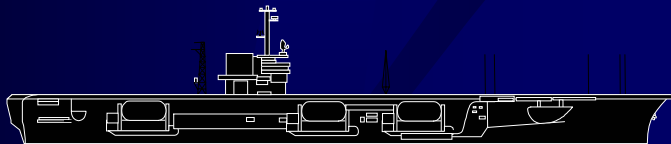
Can Airplanes Sink Ships?



“That idea is so damned nonsensical and impossible that I’m willing to stand on the bridge of a battleship while that nitwit tries to hit me from the air.”

Newton D. Baker

U.S. Secretary of War, 1921



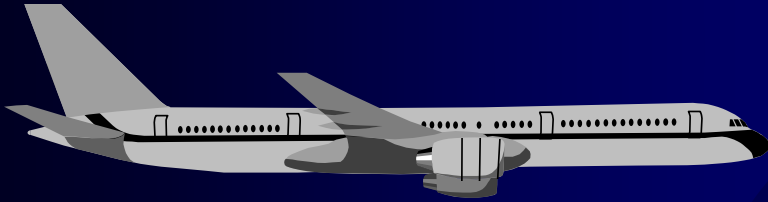
On the Wrong Wave-Length?



“We don’t like their sound, groups of guitars are on their way out.”

**-Decca Recording Company exec.
Turning down The Beatles in 1962**

They Believed It

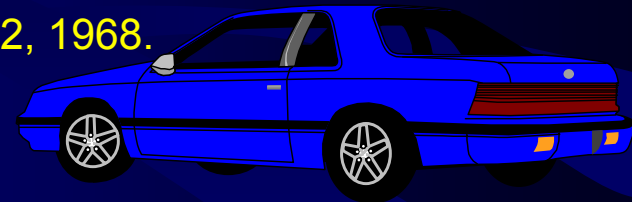


Heavier-than-air flying machines are impossible

Lord Kelvin (British mathematician, physicist and President of the British Royal Society), c. 1895

With over 50 foreign cars already on sale here, the Japanese auto industry isn't likely to carve out a big slice of the U.S. market for itself.

Business Week, August 2, 1968.



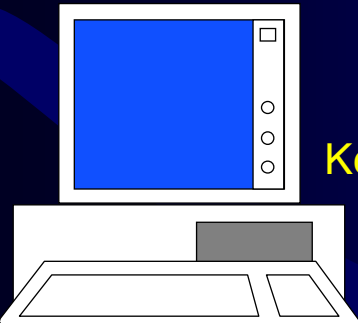
A severe depression like that of 1920-1921 is outside the range of probability.

The Harvard Economic Society, November 16, 1929.



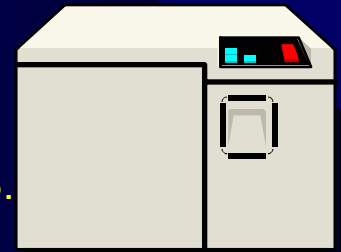
There is no reason for any individual to have a computer in their home.

Ken Olson, President of Digital Equipment Corporation, 1977.



I think there is a world market for about five computers

Thomas J. Watson, Chairman of IBM, 1943.



Are You Overconfident?

For each of the questions, enter a range (low and high boundaries) for which you are 90% confident you are correct



First Five Questions

- Q1. Length of the Nile river (in miles or km)?**
- Q2. Year in which John Steinbeck won the Nobel Prize for literature?**
- Q3. Average gestation period (in days) of female Asian elephant?**
- Q4. What was the level of the Dow Jones Industrial Average on July 1, 1985?**
- Q5. How old was Martin Luther King when he was assassinated?**

The Answers

Q1. 4,187 miles or 6,699 km

Q2. Year: 1962

Q3. 645 days

Q4. Dow was 1337

Q5. 39 years old

Which Kills More People Annually in the USA?

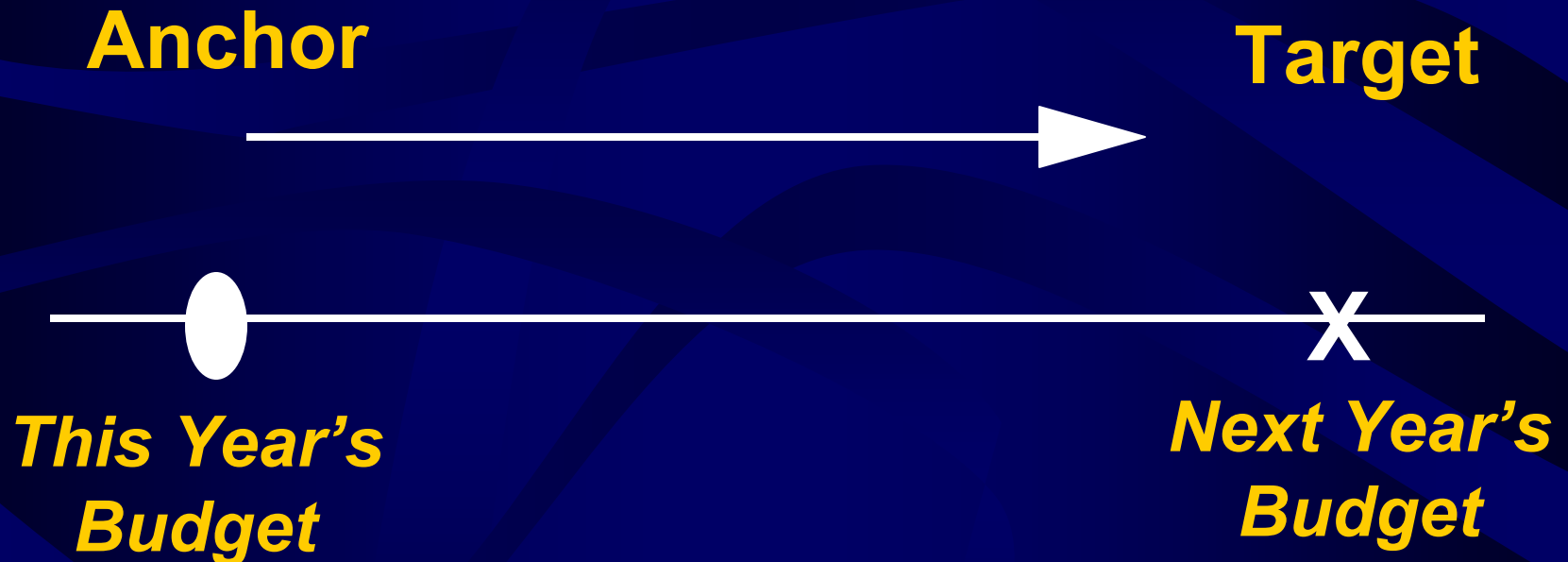
- A.
 - **Stroke** (Press 1)
 - **All accidents** (Press 2)
- B.
 - **Lung cancer** (Press 1)
 - **Motor vehicle accidents** (Press 2)
- C.
 - **Emphysema** (Press 1)
 - **Homicide** (Press 2)

ACTUAL, PERCEIVED & REPORTED FREQUENCIES

<u>CAUSES OF DEATH</u>	<u>ANNUAL U.S. TOTAL (IN 1000's)</u>	<u>PEOPLE'S ESTIMATE (IN 1000's)</u>	<u>NEWSPAPER REPORTS PER YEAR</u>
Stroke	209	7	8
Accidents (All)	112	89	276
Lung Cancer	76	10	3
Motor Vehicle Accident	55	41	136
Emphysema	22	3	1
Homicide	19	6	264

Anchoring Bias

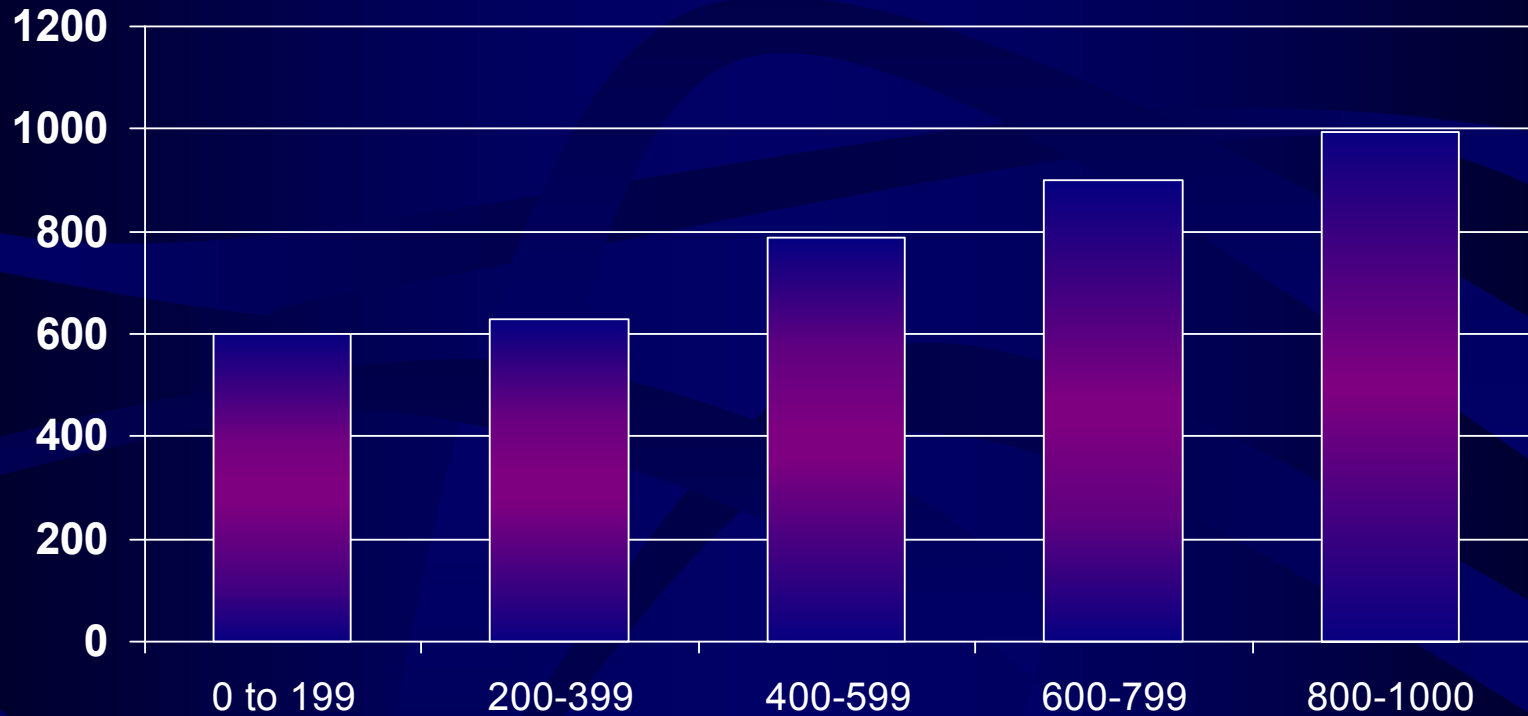
**Making Estimations by Adjusting Away
from a Convenient Starting Point**



Problem = Insufficient Adjustment

Clueless Anchors

Estimate of Year
of Attila's Defeat



Range of Random Starting Points

Key Intelligence Questions to Ask

- What don't we know that we should and can?
- Where might we be overconfident or anchored?
- Is some of our information slanted or biased?
- What are the major unknowables in this situation?
- Should we use range estimates or develop scenarios?

Changing Your Habits

<u>The Four Phases</u>	<u>Actual Time Allocation</u>	<u>Intended Time Allocation</u>
Framing	5%	20%
Intelligence-Gathering	45%	35%
Coming to Conclusions	40%	25%
Learning Focus	10%	20%