

CONQUERING COGNITIVE BIASES IN AUDITS AND EXAMINATIONS

Indiana Office of
Inspector General

9th Annual Legal &
Ethics Conference

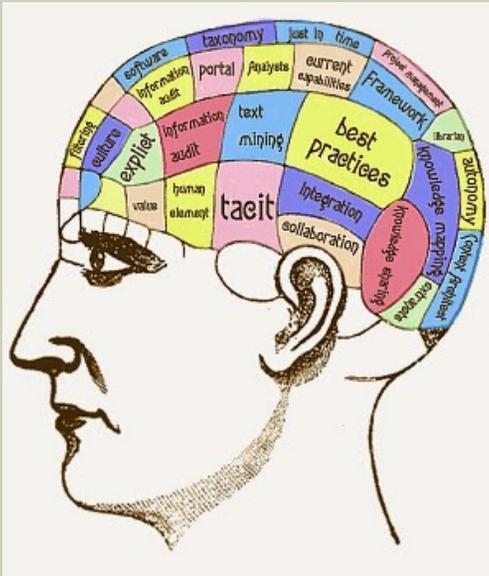
1 December 2016

OBLIGATORY CARTOON



INTRODUCTION TO COGNITIVE BIASES

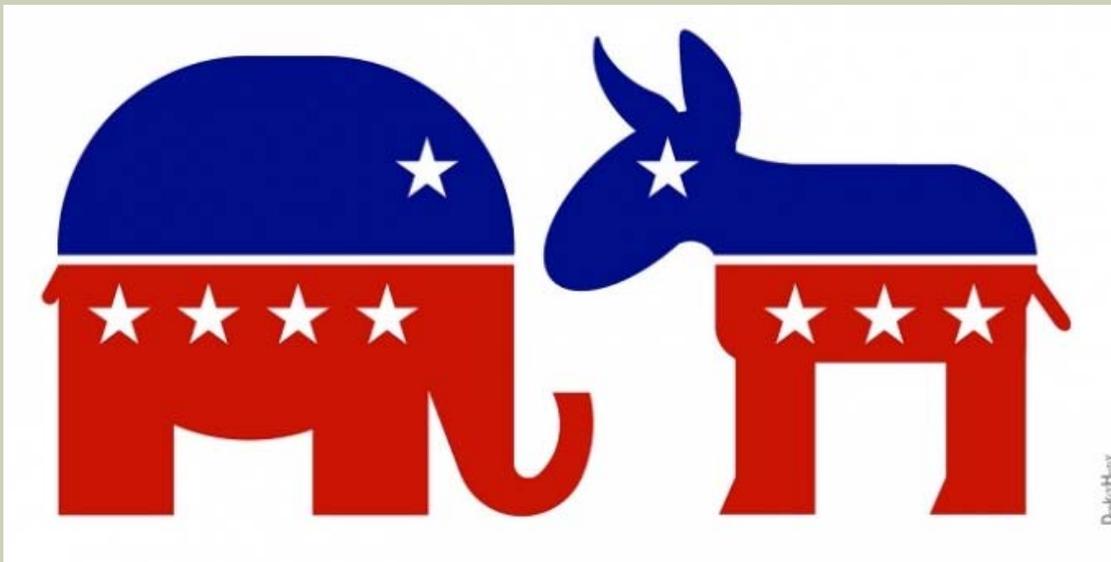
WHAT ARE COGNITIVE BIASES?



WHAT ARE COGNITIVE BIASES

Cognitive bias is the tendency to make decisions and take actions based on limited acquisition and/or processing of information or on self-interest, overconfidence, or attachment to past experience.

PREFERENCES VERSUS MINDSET

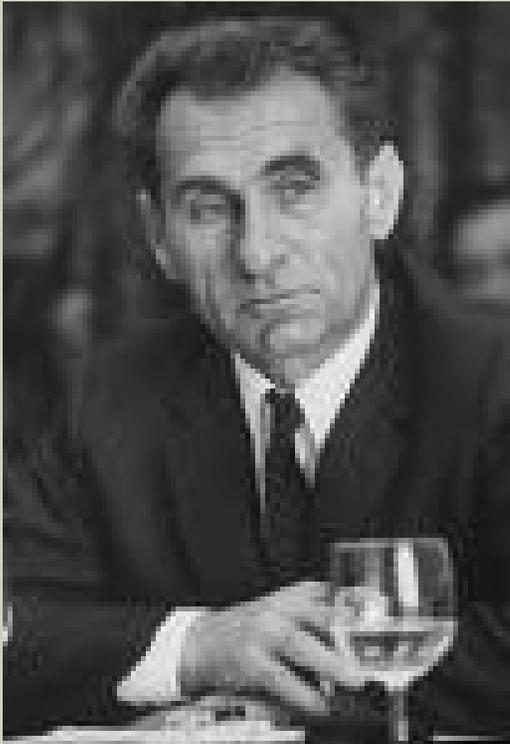


IMPACTS OF COGNITIVE BIAS

- **Biased Oversight**
- **Honest Errors**
 - Lack of training and mentoring
 - Pressure to complete work
 - Administrative errors or complacency in one's work
- **Ethics Violations**
 - Fabricated Evidence
 - Estimating results without thorough testing
 - Intentional erroneous results
 - Covering up mistakes

THE PURPOSE OF MINDSET

WHAT IS MINDSET?



It is inevitable that, in doing their job, a professional will more or less deliberately build up the set. And it is indispensable because the set is a most valuable tool in performing timely, coherent, articulate and, on a probability basis, accurate intelligence. Without it, the current stream of information would be unmanageable and often paralyzingly ambiguous.

- Dr. Klaus Knorr, Director of Center of International Studies at Princeton University



Mindset is:

- 1. Inevitable**
- 2. Indispensable**

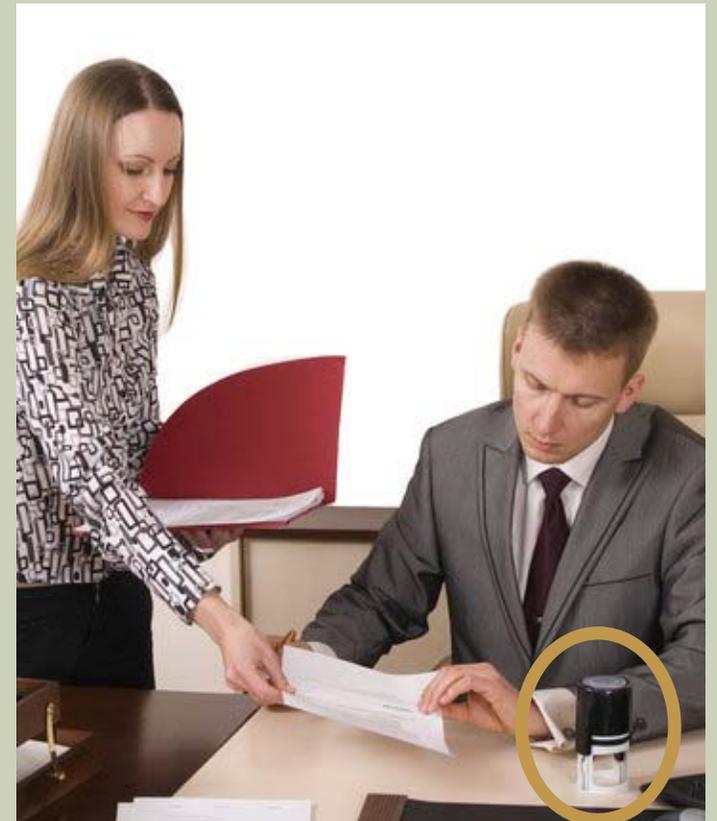
The intuitive knowledge we use to enable efficient and effective decision making.

MINDSET RISKS

Cognitive bias is the tendency to **make decisions** and **take actions** based on **limited acquisition** and/or **processing of information** or on **self-interest, overconfidence, or attachment to past experience.**

IDENTIFYING COGNITIVE BIASES

VIVIDNESS BIAS



VIVIDNESS BIAS



ANECDOTAL BIAS



ANECDOTAL BIAS

FREQUENCY OF TESTS SUGGESTED

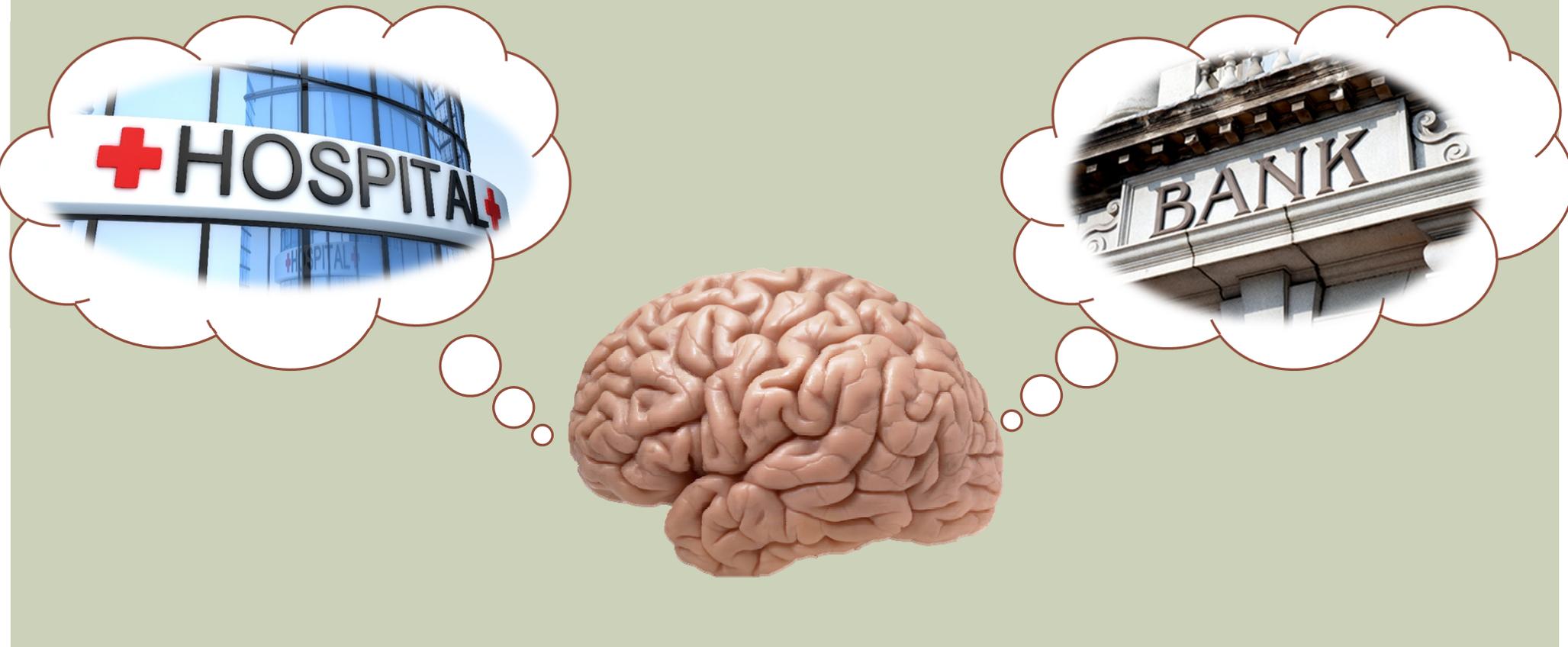
■ Confirmations ■ Documentation ■ Analytical Procedures ■ Client Inquiries ■ Reperformance ■ Observation ■ Fraud Detection



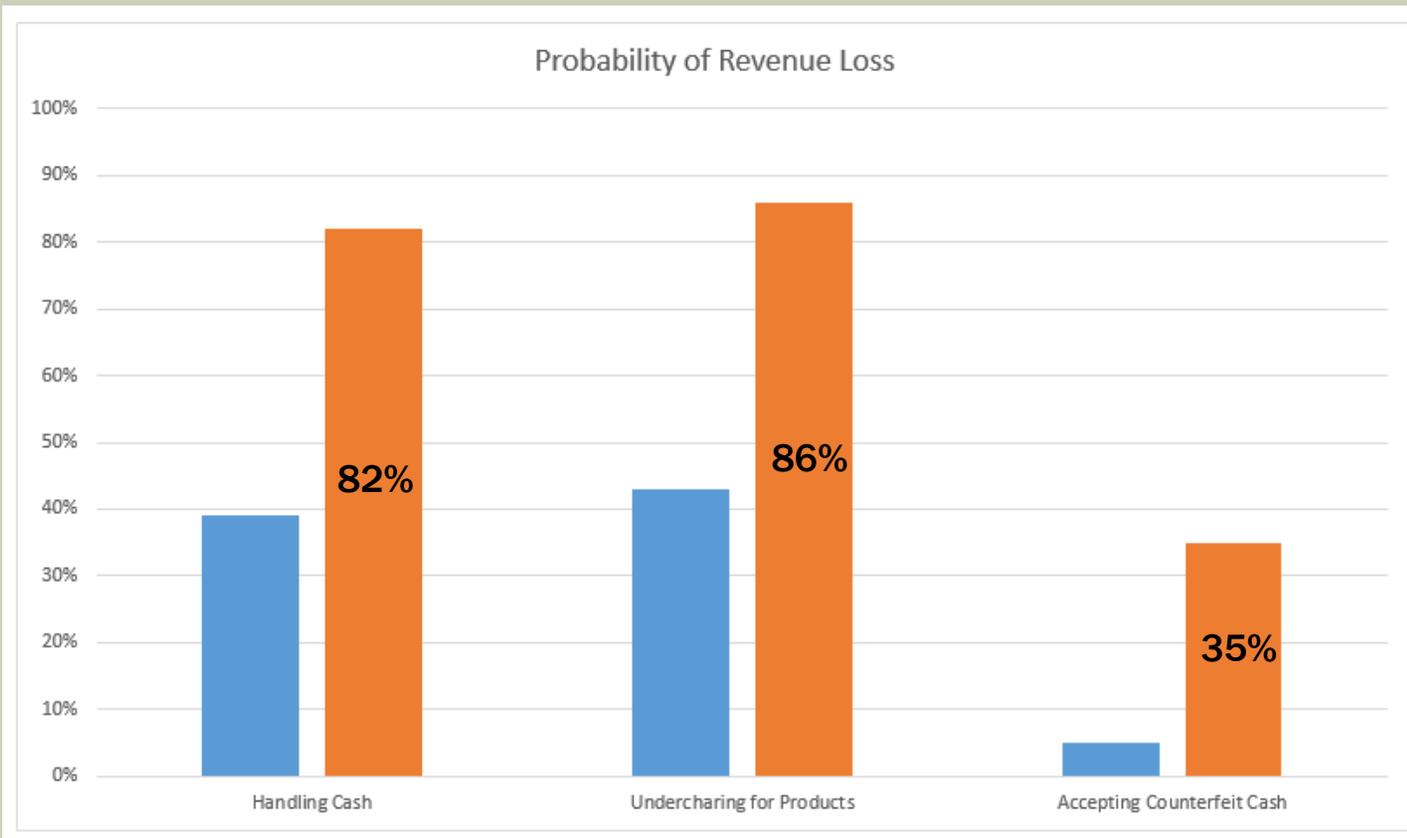
EXAMPLE 1

EXAMPLE 2

AVAILABILITY HEURISTIC



AVAILABILITY HEURISTIC



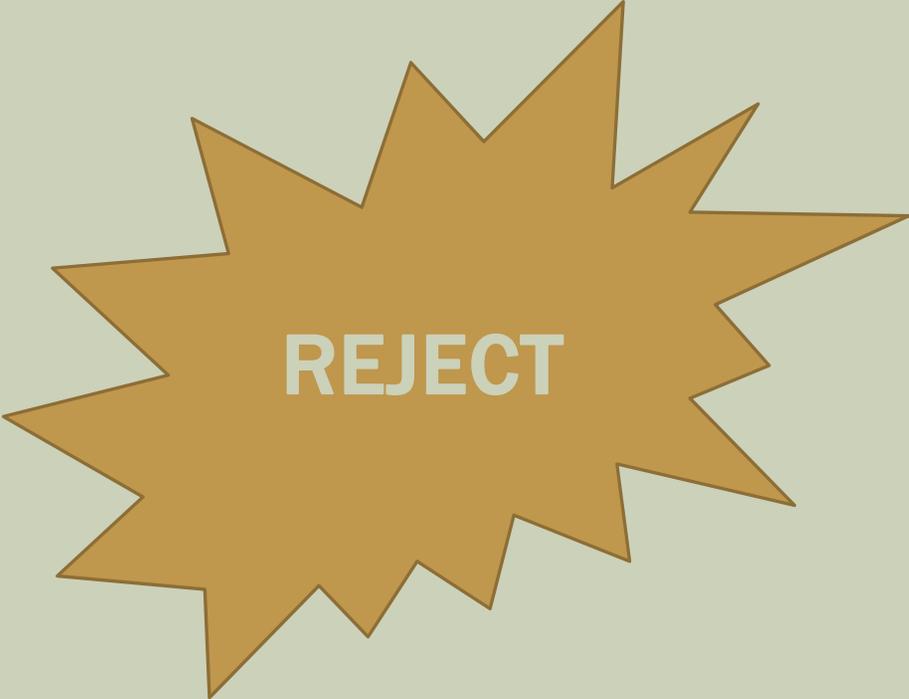
BEST GUESS



BEST GUESS

A green starburst shape with a dark red outline, containing the word "ACCEPT" in white capital letters.

ACCEPT

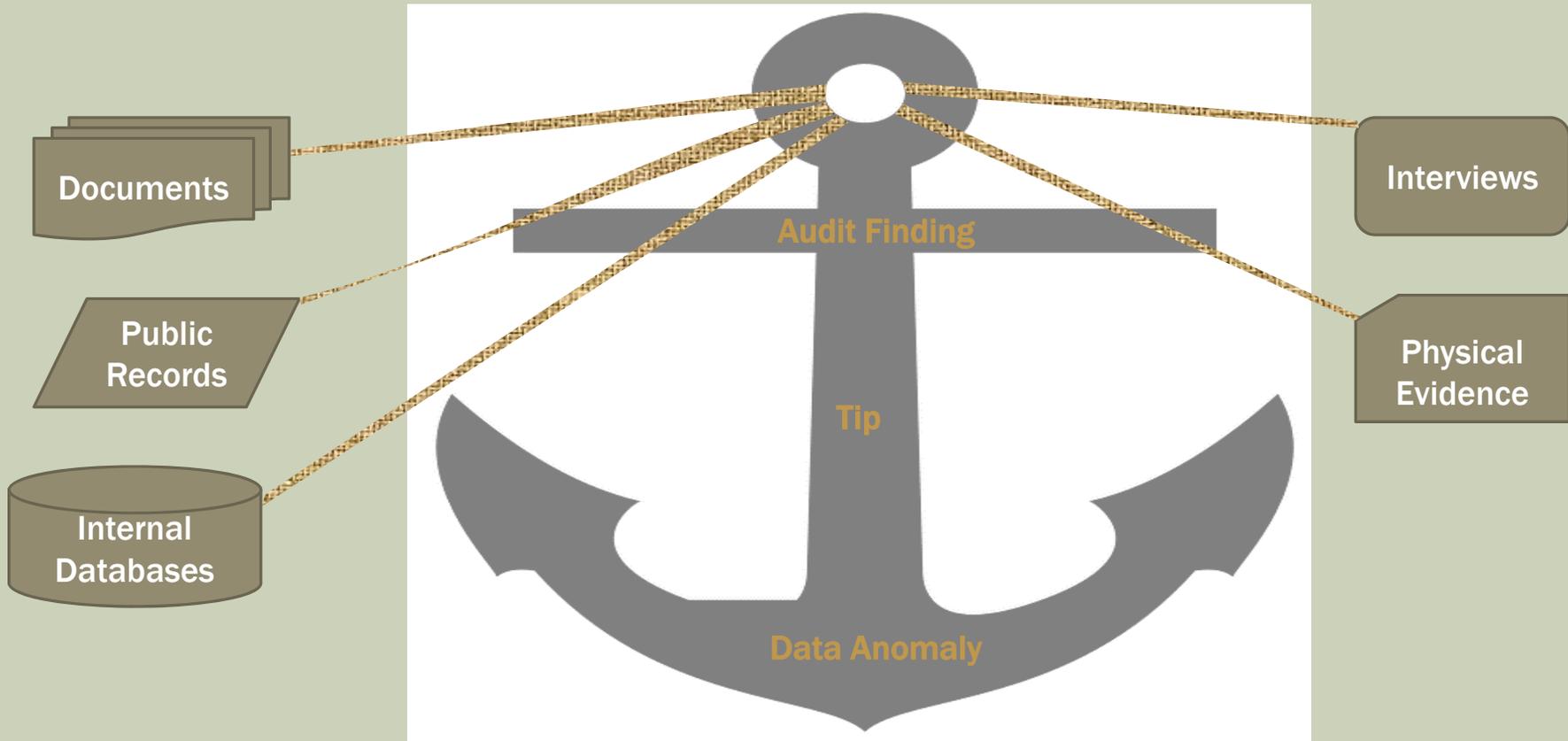
A brown starburst shape with a dark brown outline, containing the word "REJECT" in white capital letters.

REJECT

BEST GUESS

- **Binary decisions ignore...**
 - **Uncertainty in the relevance and reliability of information**
 - **Interdependence of individual pieces of information**
 - **Plausibility of evidence regardless of the source**

ANCHORING



ILLUSION OF VALIDITY



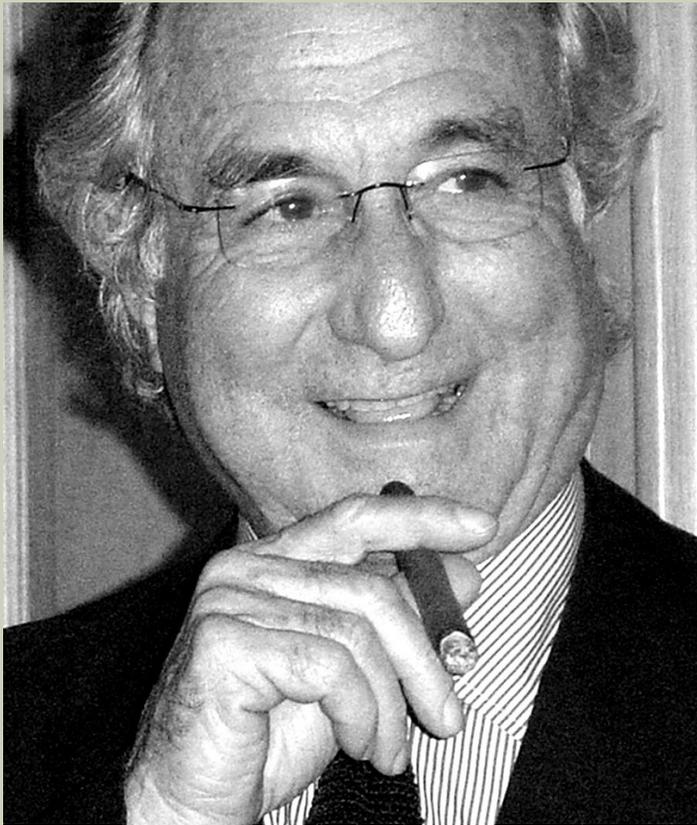
LAW OF LARGE NUMBERS

A large sample will be highly representative of the population from which it is drawn.

LAW OF SMALL NUMBERS

It is difficult to know when a sample is sufficiently large enough to be representative of the population from which it is drawn.

ILLUSION OF VALIDITY



ILLUSION OF VALIDITY

**Unique Occurrence 1 = Anomaly or
Happenstance**

Unique Occurrence 2 = Coincidence

Unique Occurrence 3 = Pattern

CONFIRMATION AND EXPECTATION BIAS

■ Confirmation Bias

Search out information that supports our hypothesis or interpret ambiguous information in a way that supports our hypothesis.

■ Expectation Bias

We give more credence to information that supports our hypothesis and less credence to information that refutes it.

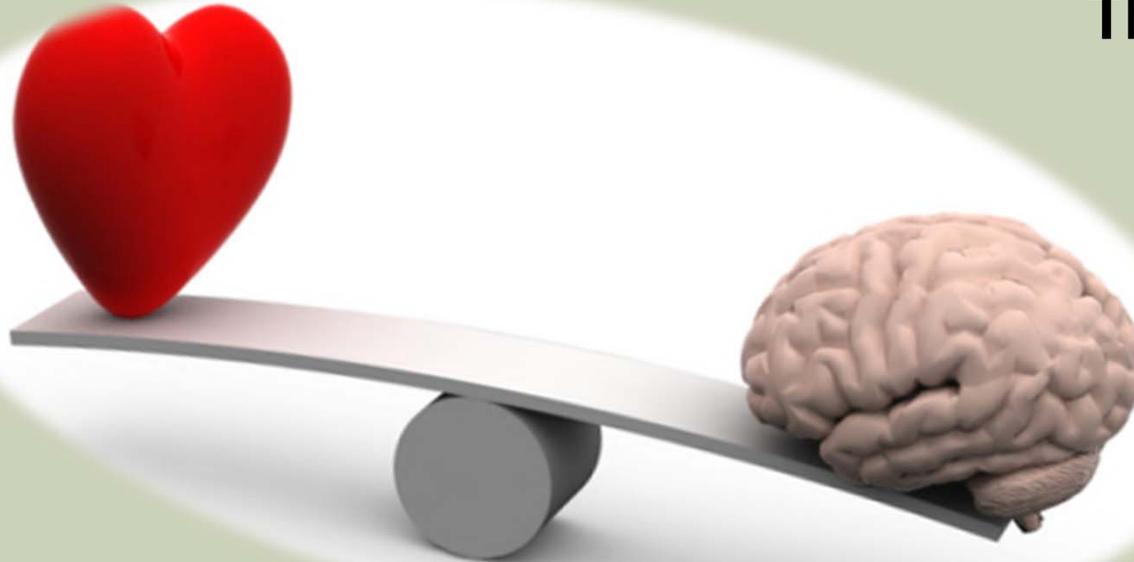
INFORMATION BIAS



IRRATIONAL ESCALATION

Commitment of...

- Time
- Money
- Reputation
- Emotion
- Etc.



There are other, better lines of examination or simply no evidence to support fraud.

OTHER TYPES OF BIAS

- **Observer or Expectancy Effect**
- **Conformity Effect**
- **Need Determined Perception**
- **Primacy Effect**
- **Overconfidence**

MITIGATING COGNITIVE BIASES

TEN TOOLS FOR MITIGATING COGNITIVE BIAS

- 1. Collaboration**
- 2. Inquiry – ask the right questions**

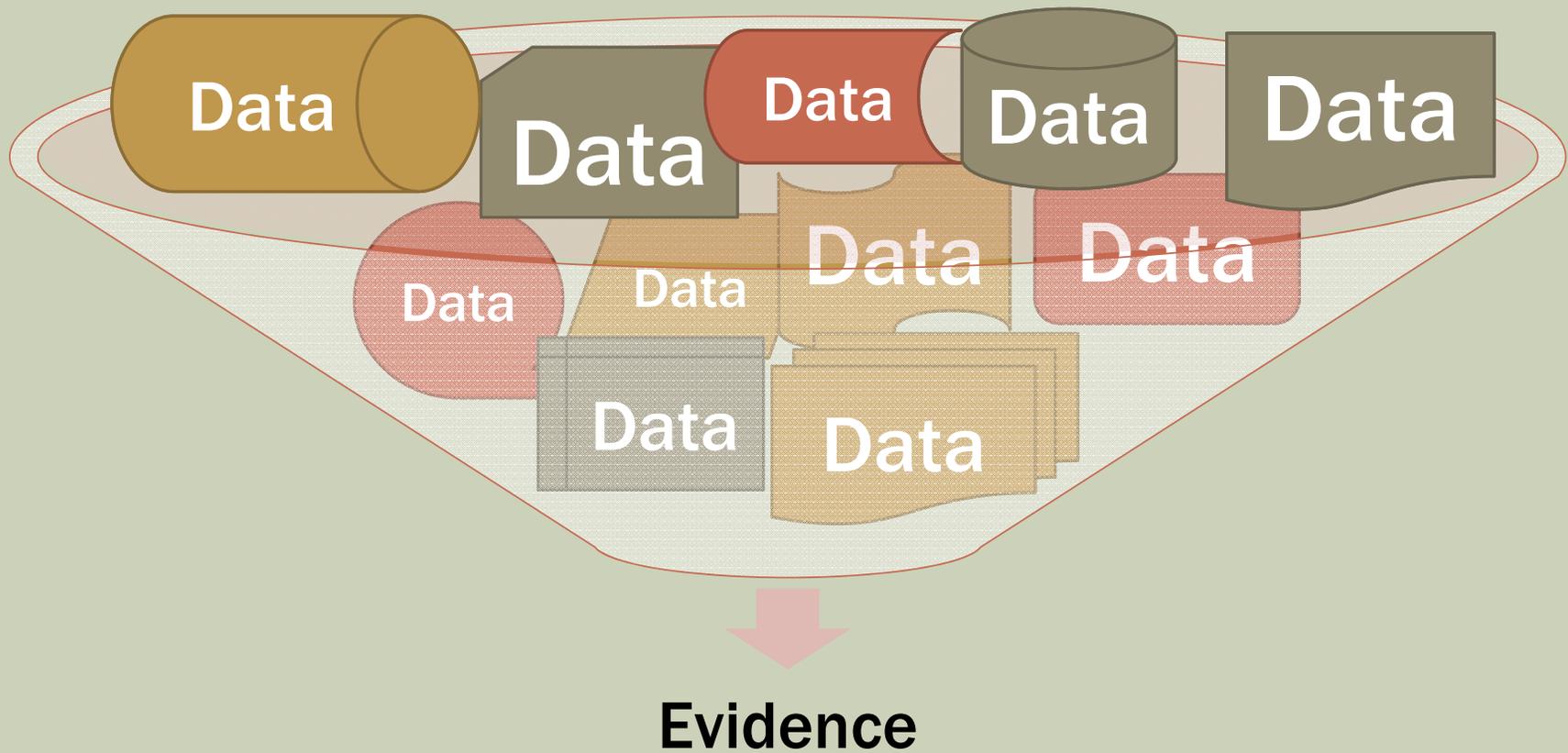
START ON THE RIGHT FOOT

- Clarify and understand the purpose of the engagement
 - Who are the interested parties?
 - What is the issue at hand?
 - When is the engagement due?
 - Where can information be found?
 - Why is the engagement being conducted?
 - How do I get additional help or resources, if needed?

TEN TOOLS FOR MITIGATING COGNITIVE BIAS

- 1. Collaboration**
- 2. Inquiry – ask the right questions**
- 3. Take it all in**

EMBRACE MINDSET



TEN TOOLS FOR MITIGATING COGNITIVE BIAS

1. Collaboration
2. Inquiry – ask the right questions
3. Take it all in
4. Use brainstorming, but in a structured manner

BRAINSTORMING

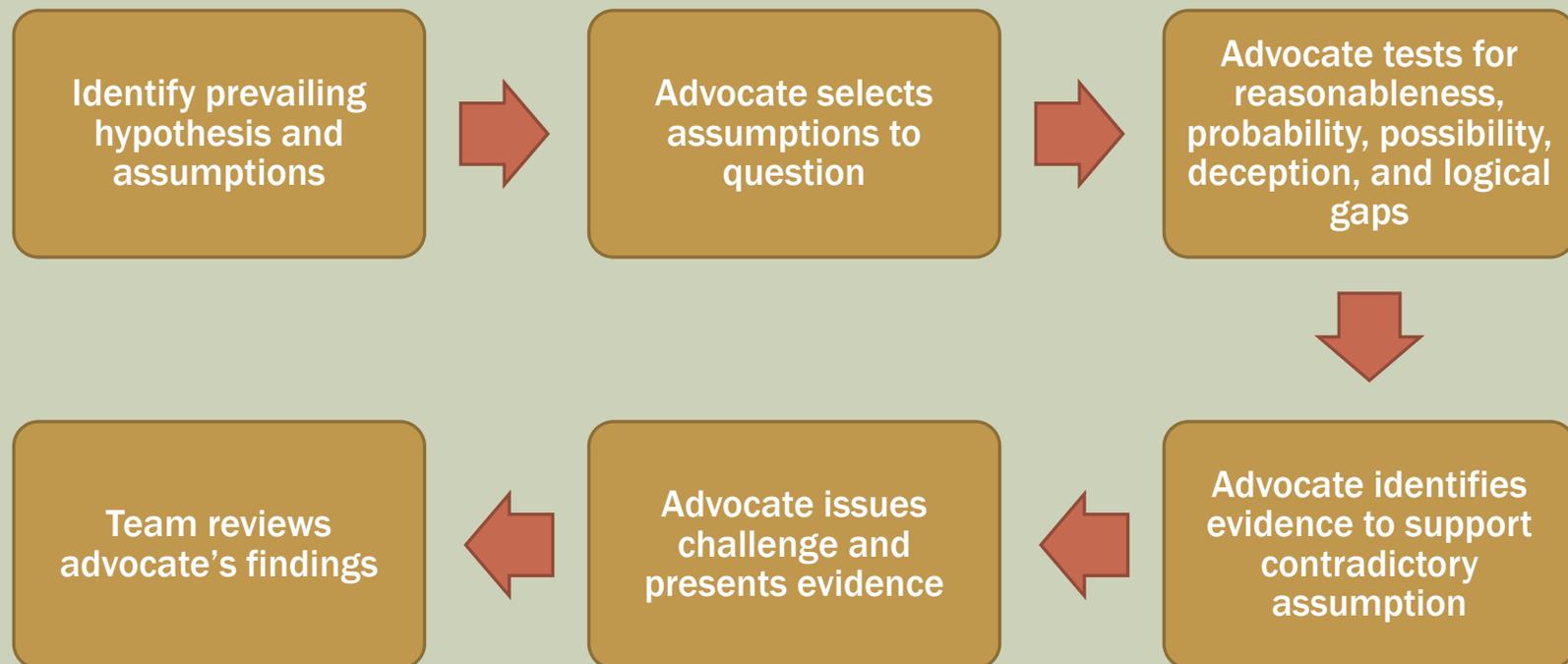


TEN TOOLS FOR MITIGATING COGNITIVE BIAS

- 1. Collaboration**
- 2. Inquiry – ask the right questions**
- 3. Take it all in**
- 4. Use brainstorming, but in a structured manner**
- 5. Embrace and explore dissenting opinions**

DEVIL'S ADVOCACY

A devil's advocate provides a contrarian opinion that creates an opportunity to test prevailing wisdom.



TEN TOOLS FOR MITIGATING COGNITIVE BIAS

1. Collaboration
2. Inquiry – ask the right questions
3. Take it all in
4. Use brainstorming, but in a structured manner
5. Embrace and explore dissenting opinions
6. Limit pressures
7. Limit outside influences
8. Utilize the scientific method

SCIENTIFIC METHOD FOR AUDITS AND EXAMINATIONS

- What happened?
- Why did it happen?
- Define hypotheses
- Gather evidence
- Analyze the evidence
- Determine your findings

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8. Utilize the scientific method
9. Seek to disprove

CRITERIA CHECK

A routine audit of a distribution center uncovers missing inventory. A review of CCTV footage shows that a shift manager – Bob – loaded boxes from the DC into his personal vehicle. Several days later, products similar to the missing inventory were posted on eBay under an account linked to Bob's son.

Criteria	Inculpatory	Exculpatory
Missing Inventory	Inventory was ordered Inventory was observed in the DC Inventory was not returned to vendor	Inventory was not received in system
Inventory Access	Bob has access to inventory Bob has access to system	No records that Bob touched inventory
Inventory Removal	Bob observed removing inventory	Cannot positively ID the inventory
Theft Concealed	No audit trail of inventory in system	Bob made no effort to hide removal of inventory
Inventory Disposition	Similar items observed on eBay eBay account linked to Bob	No document link between eBay items and company inventory

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4. Use brainstorming, but in a structured manner
5. Embrace and explore dissenting opinions.
6. Limit pressures
7. Limit outside influences
8. Utilize the scientific method
9. Seek to disprove
10. Check your ego (confidence) at the door



MANAGEMENT SUPPORT AND OVERSIGHT

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- Understand cognitive biases and how they impact an examiner's work.
- Routinely review work products to check for biases.
- Foster an environment of professional development that includes training on making judgments and critical reasoning.
 - Structured training.
 - Independent reviews.
 - Mentoring relationships.

MANAGEMENT SUPPORT AND OVERSIGHT

- Be supportive of examiners' tools and techniques.
 - Build it into the time budget of the audit plan.
 - Engage third parties on complex engagements.
- Provide oversight and challenge staff in a constructive way.
 - Advocate for examiners to quantify and qualify their findings more clearly.

MANAGEMENT SUPPORT AND OVERSIGHT

- Support your staff as a strong leader; mistakes will happen:

Bad managers save face at the expense of their staff.

Good managers take responsibility for their staff, and use failures as improvement opportunities.

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QUESTIONS

