

Behavioral Research & Behavioral Research in Auditing

***ABO Doctoral Consortium
Hilton Philadelphia
October 19, 2007***

***Mark E. Peecher
Professor & Deloitte Teaching Fellow
Director, Doctoral Program
University of Illinois at Urbana***

Overview

- **Basic definitions and my biases**
- **Behavioral experiments**
- **Audit Scholars: An Endangered Species?**
- **Parting thoughts**

Definitions & Some Biases

- **Scientific research** is **systematic**, **controlled**, **empirical** and **critical** investigation of phenomena **guided** by **theory** and **hypotheses** about the presumed relations among such phenomena (Kerlinger, F.N. *Foundations of Behavioral Research*).

Definitions & Some Biases

- ***Theory***-- a set of interrelated constructs, definitions, and propositions that present a systematic view of phenomena by specifying relations among variables with the purpose of **explaining** and **predicting** phenomena (Kerlinger).

Research and Theory

Degree of Understanding	Explain			
	Describe			
	Explore			
		Is	Ideal	Realistic
		Focus of Research		

Psych-Behavioral Research

- J/DM - How do people use desires and beliefs to choose actions? (*Hastie 2001 Annual Review of Psychology*)
- Cognitive Psych - How properties and limitations of mental processes (e.g., perception, attention, memory) influence human behavior? (*Wyer and Srull 1989 Memory & Cognition*)
- *Social Psych* - Emphasizes people's thoughts, feelings, and behaviors as shaped by the actual, imagined, or implied presence of others. (*Jones 1998 Handbook of Social Psychology*)

Experimental Advantage

- *If you want to test or refine **theory**, experiments are very desirable because they allow for strong **causal** inferences.*

Experimental Advantage

- *Experiments allow one to segregate **extraneous factors** from the **factors of theoretical interest**.*
- *In experiments, **internal validity** is **central** and **external validity** is primarily **instrumental***
- *Avoid mundane realism trap!*

Experimental Disadvantage?

- *If the objective is to identify “real-world” **effect sizes** (irrespective of underlying causal factors), other methods likely dominate experiments.*

Features of experiments

- Reproduce and measure interesting combinations of constructs in controlled situations, some combos aren't easily observed in real-world contexts.

– **Adapted from** Reynolds, P.D., *A Primer in Theory Construction*, 1987, p. 156.

- Avoid rush to explanatory research trap.

Features of experiments

- **Manipulation** of independent variables
 - Control other influential independent variables
 - random assignment (less “self-selection”)
 - holding specific factors constant
 - measuring specific factors (e.g., covariates)
- **Avoid Measured Variable Trap**

Features of experiments

- Several choices about independent variables
 - Number and nature of independent variables
 - Theory-based interactions at construct level
 - Between subjects vs. within subjects
 - Implement (operationalize)
 - Manipulation checks
- Avoid Rush to Explanatory Research Trap

Features of experiments

- Several choices about dependent variables
 - Who?
 - Avoid Audit Practitioner as Participant Trap
 - Implementation (Operationalize)
 - Number / Nature
 - Categorical vs. continuous

Features of experiments

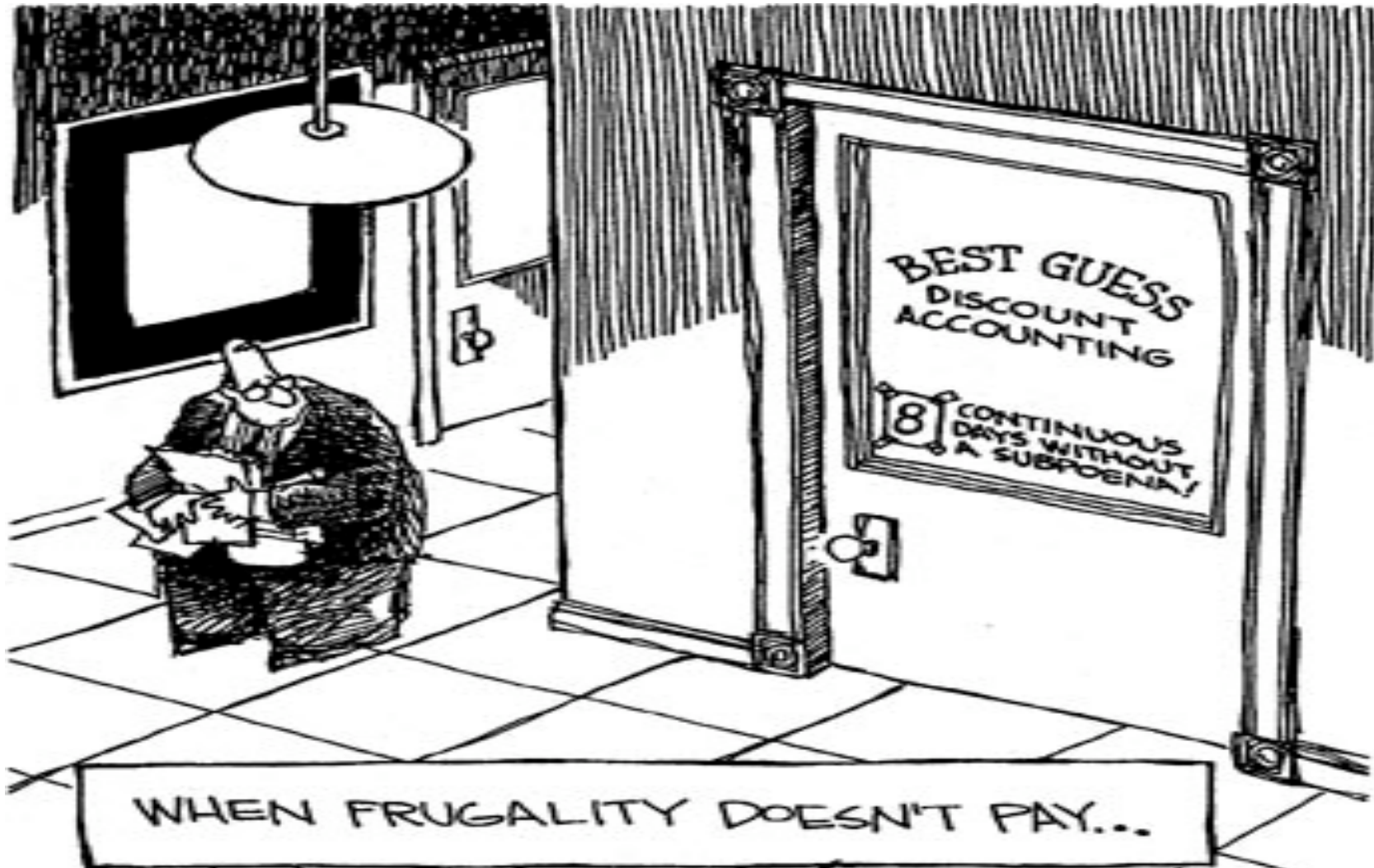
Attribute	Psychology-based	Economics-based
Repeated trials	Often not	Usually yes.
Incentives	Often not; flat \$, accountability	Usually yes. Performance-based
Deception	Usually not. Last resort.	Rare.
Formal script	Usually not.	Yes.
Unit of analysis	Individuals usually, some teams	Often market behavior

Audit Scholars: A Threatened Species?



Depends on Stock & Flows of:

1. Research Questions



**Top 10 Wish List
Audit Research Questions -
Ed Nusbaum Grant Thornton LLP**

6. **What is the best way to address auditor _____?**
7. **What is the best method for auditing _____ assertions?**
8. **How should financial-statement users and our equity markets understand the recent wave of _____?**
9. **How can we improve audit _____?**
10. **How we can further ongoing understanding of _____?**

**Top 10 Wish List
Audit Research Questions -
Ed Nusbaum Grant Thornton LLP**

1. **To what extent will recent and forthcoming _____ affect audit quality?**
2. **What does it mean to improve _____ ?**
3. **How can we conduct more _____ audits?**
4. **How should we model _____ assessment?**
5. **How do we enhance _____ assessment, and how do we test for it?**

Audit Scholars: A Threatened Species?

Depends on Stock & Flows of:

1. Research Questions



2. Data



3. Researchers



{See 2}

Parting Thoughts

- *Never lose your holy curiosity*
 - Einstein
- *The great tragedy of science - the slaying of a beautiful hypothesis by an ugly fact.*
 - T.H. Huxley
- *There are two possible outcomes: If the result confirms the hypothesis, then you've made a measurement. If the result is contrary to the hypothesis, then you've made a discovery.*
 - Fermi