



# Inquiry Teaching in Psychology

---

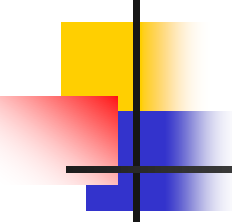
William Zachry  
The University of Memphis



# Inquiry Teaching: Definition (1)

---

- Inquiry teaching involves creating, conducting, and evaluating learning experiences that require students to go through the same processes and develop or employ the same knowledge and attitudes they would use if engaged in independent rational inquiry. (Beyer, 1979)



# Inquiry Teaching: Definition (2)

---

- Inquiry teaching involves students in learning situations in which they must make hypothetical assertions and test assertions against a variety of evidence. (Beyer, 1979)



# Inquiry: Personal Dispositions

---

- Inquiry both requires and seeks to develop such dispositions as
  - Curiosity
  - Open-mindedness
  - Tolerance for ambiguity



# Inquiry: Cognitive Skills

---

- Inquiry both requires and seeks to develop:
- **Combinatorial logic:** the ability to identify all potential causal variables in a situation and to design a controlled experiment to isolate the effect of each factor.
- **Information search and retrieval:** the ability to identify and locate relevant information from the scholarly literature to test hypotheses and draw conclusions.



# Inquiry: The Process

---

1. Define a problem
2. Develop an hypothesis
3. Search for relevant evidence
4. Draw tentative conclusions
5. Test conclusions vs. new evidence
6. State final conclusions
7. Or....Cycle back to step 2 and repeat as often as desired to refine conclusions



# Inquiry Exercise

---

- This is a simulation of inquiry teaching and learning.
- We will take 30 minutes to illustrate a process that would take two weeks in a regular class situation.
- Much of the work students would do will be done for you in this exercise.

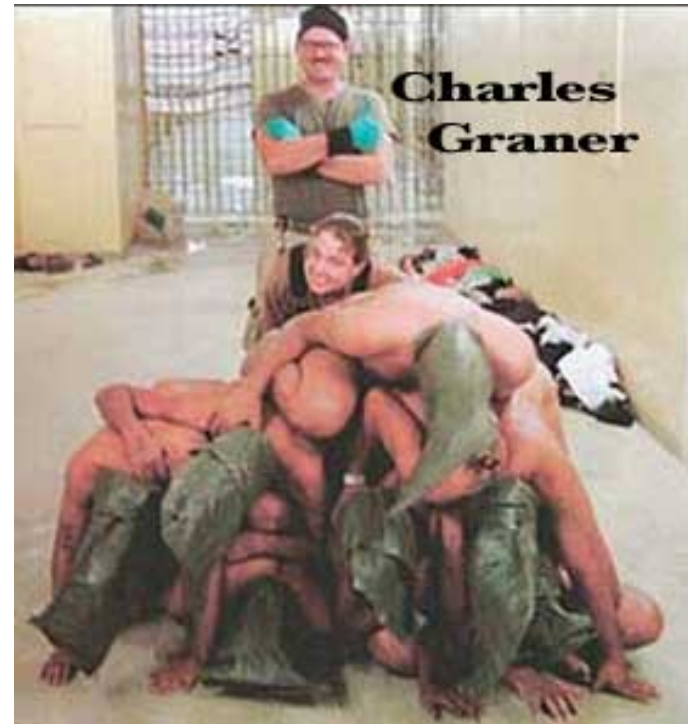
# Problem Definition (1)

- In 2004 U.S. Army personnel grossly mistreated Iraqi prisoners at Abu Ghraib Prison.





# Problem Definition (2)





## Problem Definition (3)

---

- Media treatment of the incident often questioned how such cruel and sadistic individuals could have been placed in charge of these prisoners of war.
- Other accounts blamed the behavior of the Abu Ghraib guards on poor training, lack of supervision, and fear produced by the uncertainties of war in an alien environment.



## Problem Definition (4)

---

- As you can see, there are two competing explanations at work.
- One explanation attributes the guards' behavior to antisocial personality traits.
- The other explanation attributes the guards' behavior to malevolent situational influences.



# Create an Hypothesis to Explain the Guards' Behavior

---

- Create a testable hypothesis to explain the guards' behavior.
- Try to play the role of a naïve undergraduate who has never read the literature or thought about this issue.



# Hypothesis

---

- The guards' cruel behavior at Abu Ghraib Prison was caused by their sadistic personalities.



# Test the Hypothesis

---

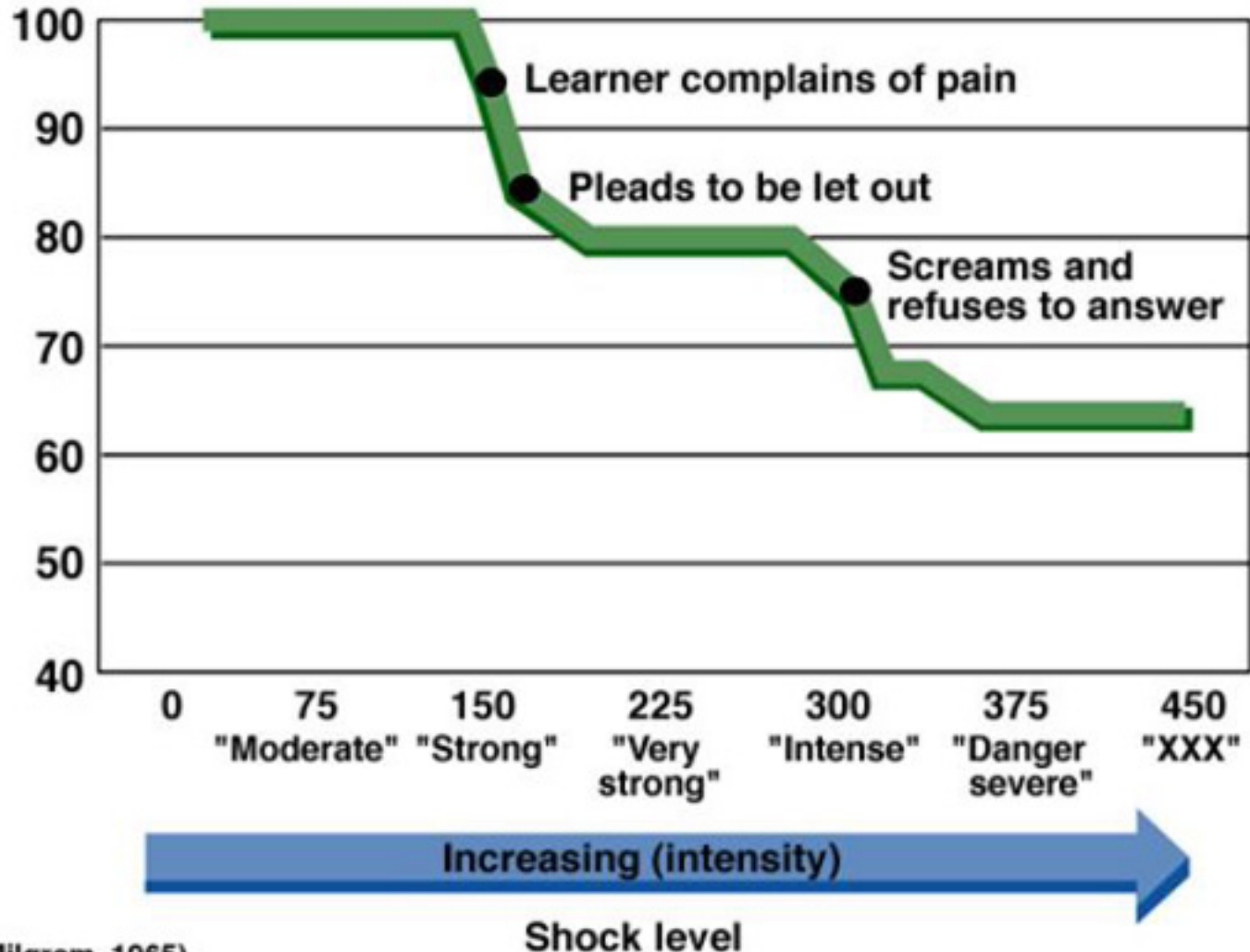
- Read Milgram, S. (1963), *Behavioral Study of Obedience*

# Milgram's Results

David G. Myers, *Social Psychology*, 6ed. Copyright © 1999. The McGraw-Hill Companies, Inc. All Rights Reserved.

## Milgram Obedience Experiment

Percent of subjects still obedient



(From Milgram, 1965)



# Explaining Milgram's Results

---

- Why did so many ordinary people—people just like us—agree to administer deadly levels of shock to an innocent person?
- Internal (dispositional) explanation: they were cruel, or sadistic, or just unfeeling people
- External (situational) explanation: factors in the situation overcame their usual opposition to needlessly hurting another person





# Was it Dispositional?

---

- Volunteers were pre-tested for personality traits.
- They were reported to be in the normal range of personality
- Participants were ordinary, law-abiding citizens



# Was it Situational?

---

- Obedience was increased by:
- Having a “teacher committee” that pressured for more shock (73%)
- Having “teacher” just read word pairs while another gave shocks (93%)



# Was it Situational?

---

- Obedience was decreased by:
- Moving the experiment away from Yale (48%)
- Having “learner” sit in the same room (40%)
- Having “teacher” touch “learner” (30%)

# “Touching” the Learner

Sorry, Wrong Number!





# Was it Situational?

---

- Obedience was decreased by:
- Having experimenter leave room (20%)
- Having a “teacher committee” that pressured for less shock (10%)



# Was it Situational?

---

- Total obedience (450 v.) varied from 10% to 93% depending on the experimental situation
- What does this indicate about the causes of the obedience?



# Do Countries Differ in Obedience?

---

- Does obedience differ among countries?
- Which countries would likely show more obedience than the U.S.A. Why?
- Which would show less obedience? Why?

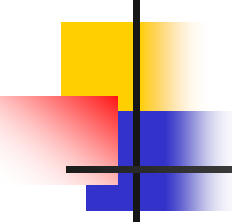


# Obedience In Other Countries

---

COUNTRY	TOTAL OBEDIENCE
The Netherlands	92%
Spain	90%
Italy	85%
Germany	85%
Austria	80%
U.S.A.	65%
Jordan	62%
United Kingdom	50%
Australia	40%





# Tentative Conclusion on Support for the Hypothesis

---

- Do you believe the Milgram study lends support to our hypothesis?
- Why or why not?
- Cite specific evidence for your views.



# Milgram's Interpretation

---

- “Moral factors can be shunted aside with relative ease by a calculated restructuring of the informational and social field.”

--Stanley Milgram, Obedience to Authority, p. 7.



# Revise the Hypothesis

---



# Revised Hypothesis

---

- The guards' cruel behavior at Abu Ghraib Prison was caused by obedience to an authority figure.



# Test the Revised Hypothesis

---

- Read Haney, C., Banks, W.C. & Zimbardo, P.G. (1973) *A study of prisoners and guards in a simulated prison.*

# Stanford Prison Experiment

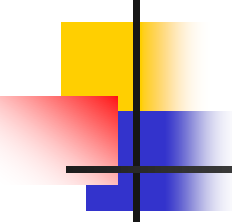




# Stanford Prison Experiment

---

- Participants were college students, tested in normal ranges on personality tests, and randomly assigned to play roles of “guards” and “prisoners”
- Discontinued after 6 days due to brutality of “guards” and emotional distress of “prisoners”



# Tentative Conclusion on Support for the Hypothesis

---

- Do you believe the Zimbardo study lends support to our hypothesis?
- Why or why not?
- Cite specific evidence for your views.





# Zimbardo's Explanation

---

- “The value of the SPE resided in demonstrating the evil that good people can be readily induced into doing to other good people within the context of socially approved roles, rules, and norms, a legitimizing ideology, and institutional support.”



# Revise Hypothesis

---



# Revised Hypothesis

---

- The guards' cruel behavior at Abu Ghraib Prison was caused by a situation that supported and legitimized such behavior.



# One Final Bit of Evidence

---

- Read Carnahan, T., & McFarland, S. (2007) *Revisiting the Stanford Prison Experiment: Could Participant Self-Selection Have Led to the Cruelty?*”



# Methodology (1)

---

- College students were recruited via newspaper ads from six state universities in Kentucky and Tennessee (two doctoral and four regional)
- Experimental condition: Ad identical to Zimbardo SPE – “Male college students needed for a psychological study of prison life”
- Control condition: “ Male college students needed for a psychological study.”



## Methodology (2)

---

- Participants completed tests for seven personality traits related to tendencies toward or away from aggressive abuse.
- The actual prison stimulation was NOT conducted (participants never left their home campuses)



# Results (1)

---

- “Volunteers for the prison study scored significantly higher on measures of the abuse-related dispositions of:”
  - Aggressiveness
  - Authoritarianism
  - Machiavellianism
  - Narcissism
  - Social Dominance



## Results (2)

---

- Volunteers for the prison study scored significantly....lower on empathy and altruism, two qualities inversely related to aggressive abuse.”
  - Carnahan & McFarland (2007)





# Results (3)

**TABLE 1:** Trait Scale and Item Means of Volunteers for the Psychological Study of Prison Life and Psychological Study

Trait	Prison Life (n = 30)	Psychological Study (n = 61)	t
Aggression [.70]	19.17 (3.20)	15.13 (2.52)	3.90**
Authoritarianism [.78]	31.90 (2.67)	28.90 (2.41)	1.73*
Machiavellianism [.75]	59.71 (2.99)	54.30 (2.71)	2.49**
Narcissism [.82]	51.37 (3.67)	46.02 (3.29)	3.13**
Social dominance [.89]	41.13 (2.57)	32.64 (2.04)	3.25**
Dispositional empathy [.82]	47.47 (3.39)	50.85 (3.63)	-1.96*
Altruism [.73]	33.67 (2.45)	36.00 (2.57)	-1.91*

NOTE: Numbers in brackets beside each trait are alpha coefficients across all participants in the current study. Numbers in parentheses are item means for each scale on the 5-point response scale. The *t* tests do not assume equal variance for the two groups. *F* tests for equal variance found that the volunteers for the study of prison life, in comparison to the control study, were significantly more varied in their scores on social dominance and aggression but were significantly less varied in their altruism. The variance of the two groups did not differ on the remaining scales. \**p* < .05. \*\**p* < .01, one-tailed.



# Revise Hypothesis

---



# Carnahan & McFarland's Interpretation

---

- Although implications for the SPE remain a matter of conjecture, an interpretation in terms of person-situation interactionism rather than a strict situationist account is indicated by these findings.”
  - Carnahan & McFarland (2007)



# Final Evaluation of Hypothesis

---

- The guards' cruel behavior at Abu Ghraib Prison was caused by an interaction of abuse-related dispositions and a situation that legitimized abusive behavior.
- A contributing factor is self-selection of volunteers with strong abuse-related dispositions for prison guard duty.



# Student Comments About the Inquiry Method

---

- Question: What is your overall impression of the Inquiry Method?
- It makes you think harder about the topic, and allows you to analyze things and come to your own conclusion without the fear of “being wrong”. Class goes by quickly—lends itself to interesting class discussions



## Overall Impression (2)

---

- I think it's great. I've found the assignments interesting and they seem to bridge the gaps between concept and application.
- It is not my favorite method because I am better at retaining information from a lecture than I am with a class discussion.



## Overall Impression (3)

---

- I like the Inquiry Method a lot because it demands a lot of critical thinking.
- It helps me think critically about issues. It also made me realize that we can argue almost any statement.
- That it can reveal biases as well as useful data...allows you to investigate beyond the scope of one's own opinion.
- I like how criticisms of the hypothesis flood the conversation. We really think instead of recounting data.



# What parts of the process have been least helpful?

---

- I like your method, but the direction of discussion is gauged by the students' thought process. Some can do this scholarly, while many others cannot.
- Sometimes when we are developing a hypothesis, it is not very conducive to writing a good paper. I think it is important to devote a little more time to creating a logical/concise hypothesis earlier on, so we can gather evidence earlier, and the hypothesis won't change.





# Least Helpful Parts

---

- If there was a way to alleviate our bias as researchers, I feel that the method would be improved; but given the fact of how hard this is, I feel this portion will always be a component of the method.



# References

---

- Beyer, B. K. (1979). *Teaching Thinking in Social Studies: Using Inquiry in the Classroom*. (rev ed.) Columbus, OH: Merrill.
- Carnahan, T., & McFarland, S. (2007) *Revisiting the Stanford Prison Experiment: Could Participant Self-Selection Have Led to the Cruelty?"*
- Haney, C., Banks, W.C. & Zimbardo, P.G. (1973) *A study of prisoners and guards in a simulated prison*.
- Milgram, S. (1963), *Behavioral Study of Obedience*
- Stanley Milgram, Obedience to Authority, p. 7.
- Zachry, William H. *How I Kicked the Lecture Habit: Inquiry Teaching in Psychology*. *Teaching of Psychology*, v12 n3 p129-31 Oct 1985.