



# Selection Decision Aids and Psychological Resistance to Change

Scott Highhouse

BOWLING GREEN STATE UNIVERSITY

# Selection Decision Aids

- Standardized procedures for...
  - ...collecting information on job candidates
    - Standardized tests
    - Structured interviews
    - Scored work samples
  - ...combining candidate scores

# Grossly Underutilized

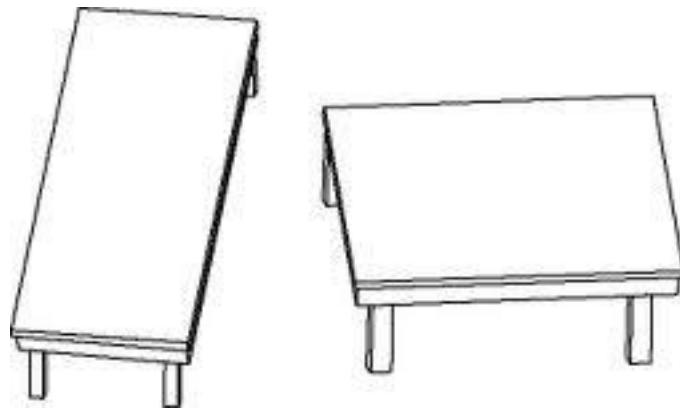
- Unstructured interview continues to be most popular and widely-used methods of hiring.
- Managers perceive written tests to be inferior to interviews for evaluating personality and intelligence.
- The holistic method of data combination continues to dominate practice in individual assessment and assessment centers.

# Research-Practice Gap

“There is considerable evidence to suggest that the **biggest discrepancies between research and practice** in I/O psychology, HR and related fields exist in the area of **employee selection.**”

Rynes (in press) *The Oxford Handbook of Industrial-Organizational Psychology*

# Not Intuitive



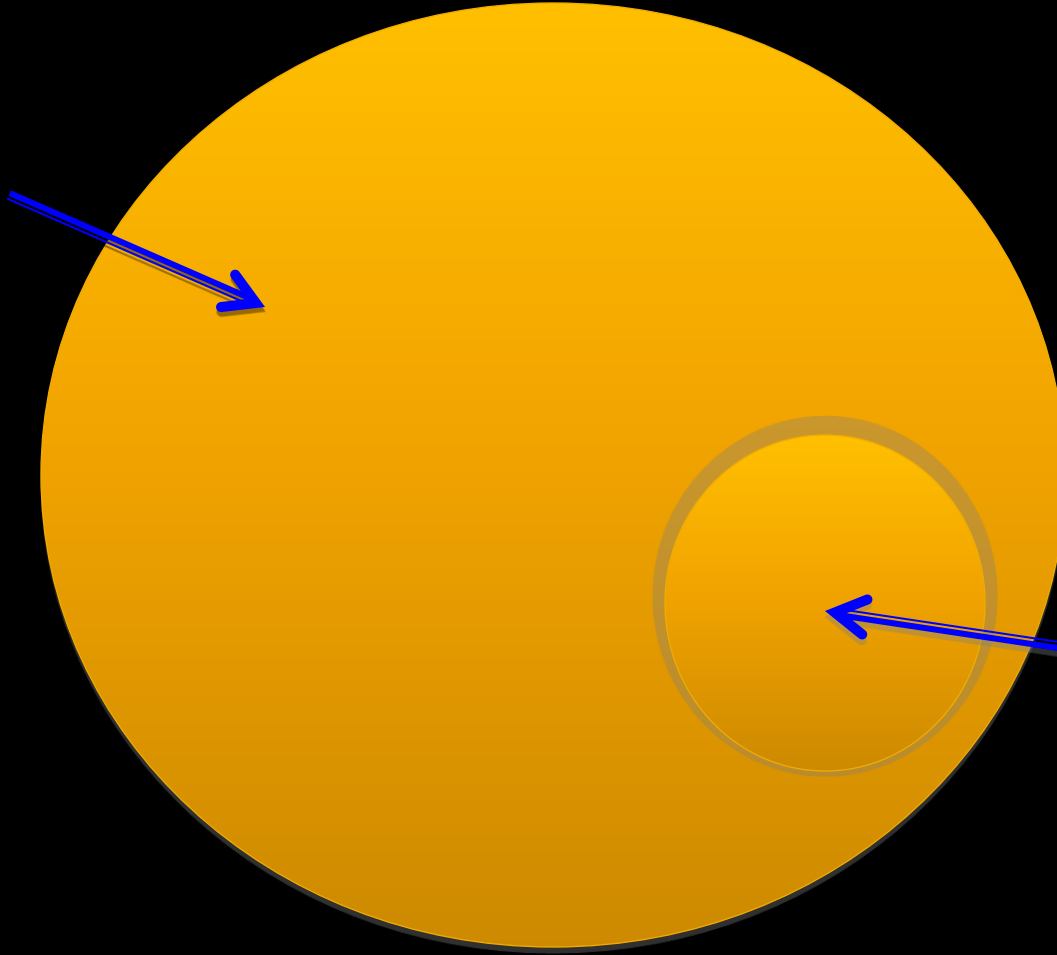
# *People like details*

Data-driven approaches ignore details

# Which is more likely?

- An all-out nuclear war between Russia and the U.S.
- An all-out nuclear war between Russia and the U.S. in which neither country intends to use nuclear weapons, but is triggered by the actions of a third party such as Libya, Pakistan, or Israel.

All possible ways that Russia and the U.S. could end up in an all-out nuclear war.



Just one way Russia and the U.S. could end up in an all-out nuclear war.



# Conjunction fallacy

- An all-out nuclear war between Russia and the U.S.
- An all-out nuclear war between Russia and the U.S. in which neither country intends to use nuclear weapons, but is triggered by the actions of a third party such as Libya, Pakistan, or Israel.

# Which provides more detail?

## Unaided

- Interview impressions
- Work history
- Mannerisms
- Perceived fit with culture

## Data-Driven

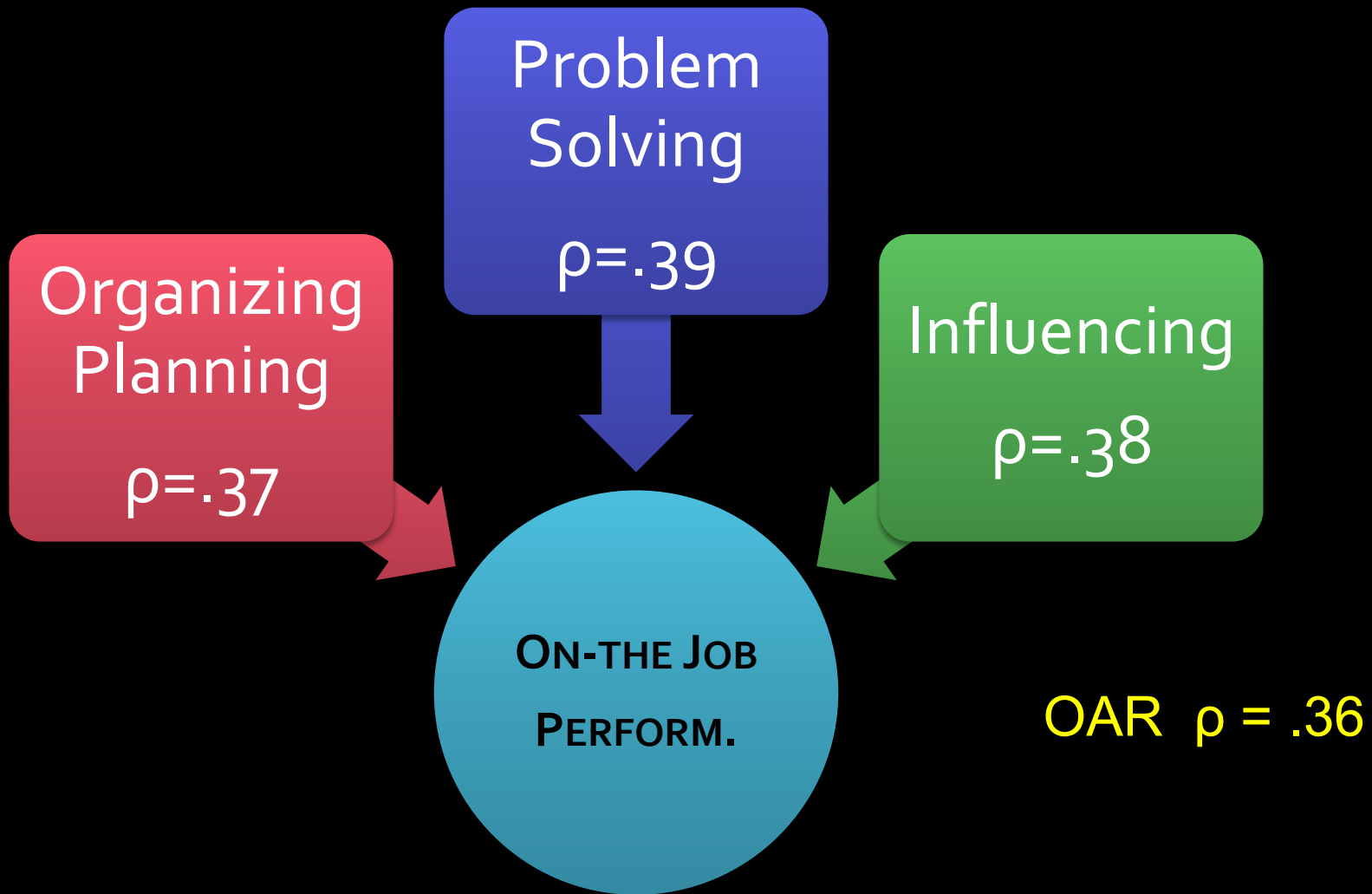
- Rating<sub>1</sub> + Test Score<sub>1</sub>  
+ Rating<sub>2</sub> + Test Score<sub>2</sub>

# Assessment Center Network

- **Question:** What are some best practices to develop a scoring algorithm to determine the final rating for AC candidates?
- **Response:** I'd say that in most instances it's actually a mistake. It's like adding apples to pears and counting the answer in elephants.

# Grade school math

- 93.5% of the time, a simple **average** of dimension scores predicted the OAR (Sackett & Wilson, 1982).
- But, who needs math?.....



Arthur et al. (2003) *Personnel Psychology*

# Potent sense of satisfaction

- “Many assessors report a potent sense of satisfaction from putting the evidence together and creating a holistic view of the assessee”

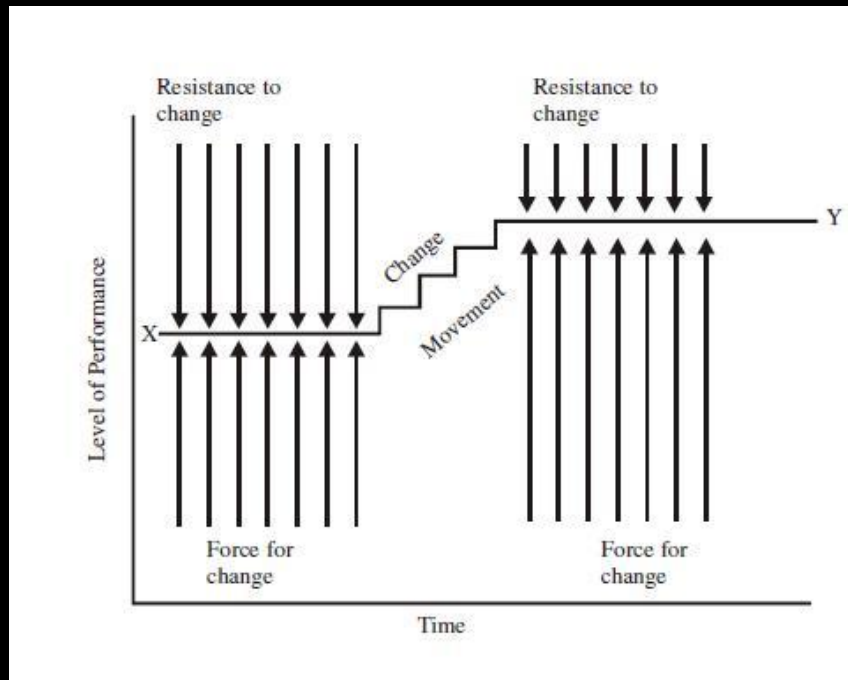
Ann Howard (1997) *Journal of Social Behavior and Personality*

SHOULD OUR  
METHODS BE  
SCIENCE-BASED  
OR SATISFACTION-  
BASED?

HOW DO WE  
GET PEOPLE  
TO CHANGE?



# Overcoming Resistance to Change



Field Theory



Kurt Lewin

# Briefly

- Some change resistance factors
  - Reluctance to give up old habits
  - Reluctance to lose control
  - Need for new skills
- Some suggestions for overcoming them
  - Provide context
  - Simplify
  - Involve users

# Resistance Factors

- Reluctance to give up old habits

Kahneman &  
Tversky

*Losses  
loom  
larger  
than  
gains*



# Should I change?

Traditional Interview	Structured Interview	Outcome
Lower validity	Higher validity	<b>Gain</b>
Easy to Implement	Harder to Implement	<b>Loss</b>

# Resistance Factors

- Reluctance to give up old habits
- Reluctance to lose control

# Self-Determination

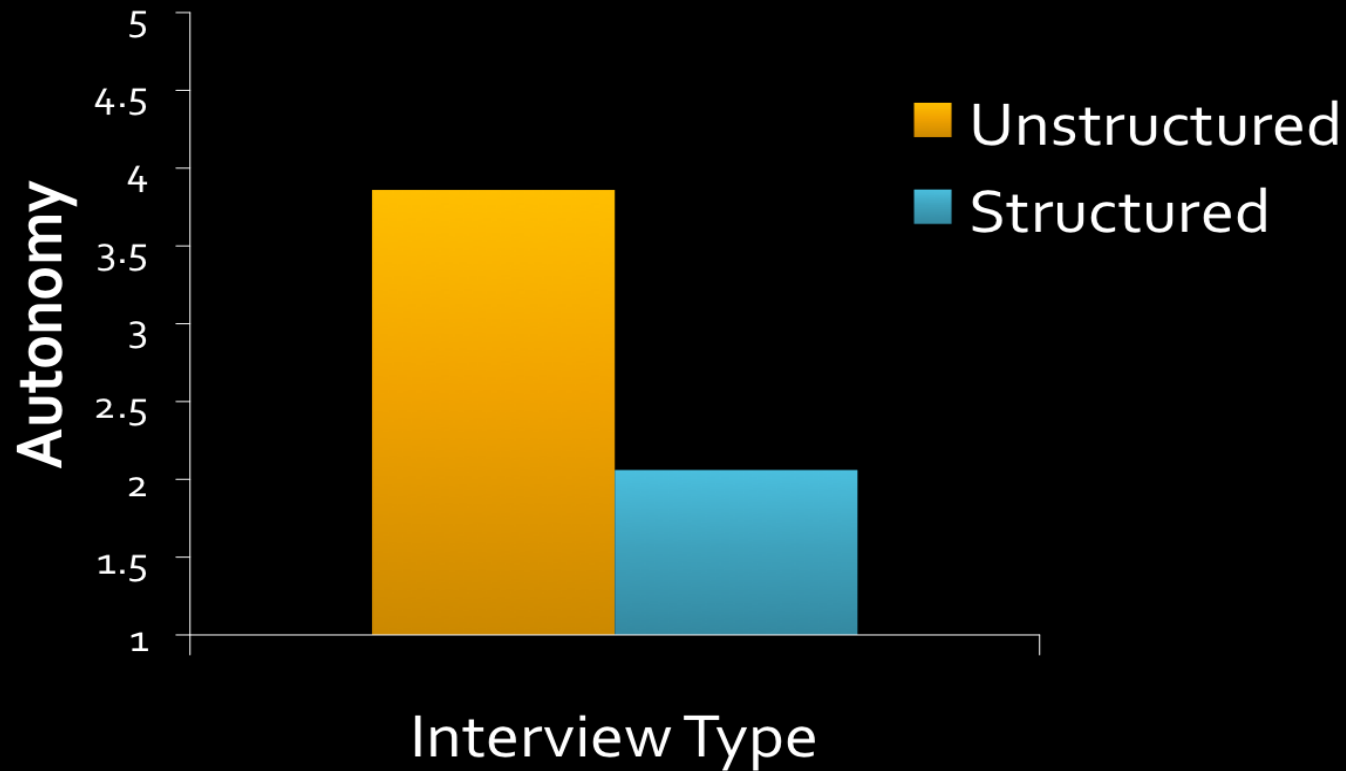
- The desire for **autonomy** has been recognized as one of the most important factors in motivation (Deci & Ryan, 2000; Gagne & Deci, 2005).

## Do decision aids inhibit autonomy?

- “Hiring my replacement in this way would give me a sense of ...”
  - ...control
  - ...choice
  - ...free will
  - ...influence
  - ...self-sufficiency
  - ...freedom

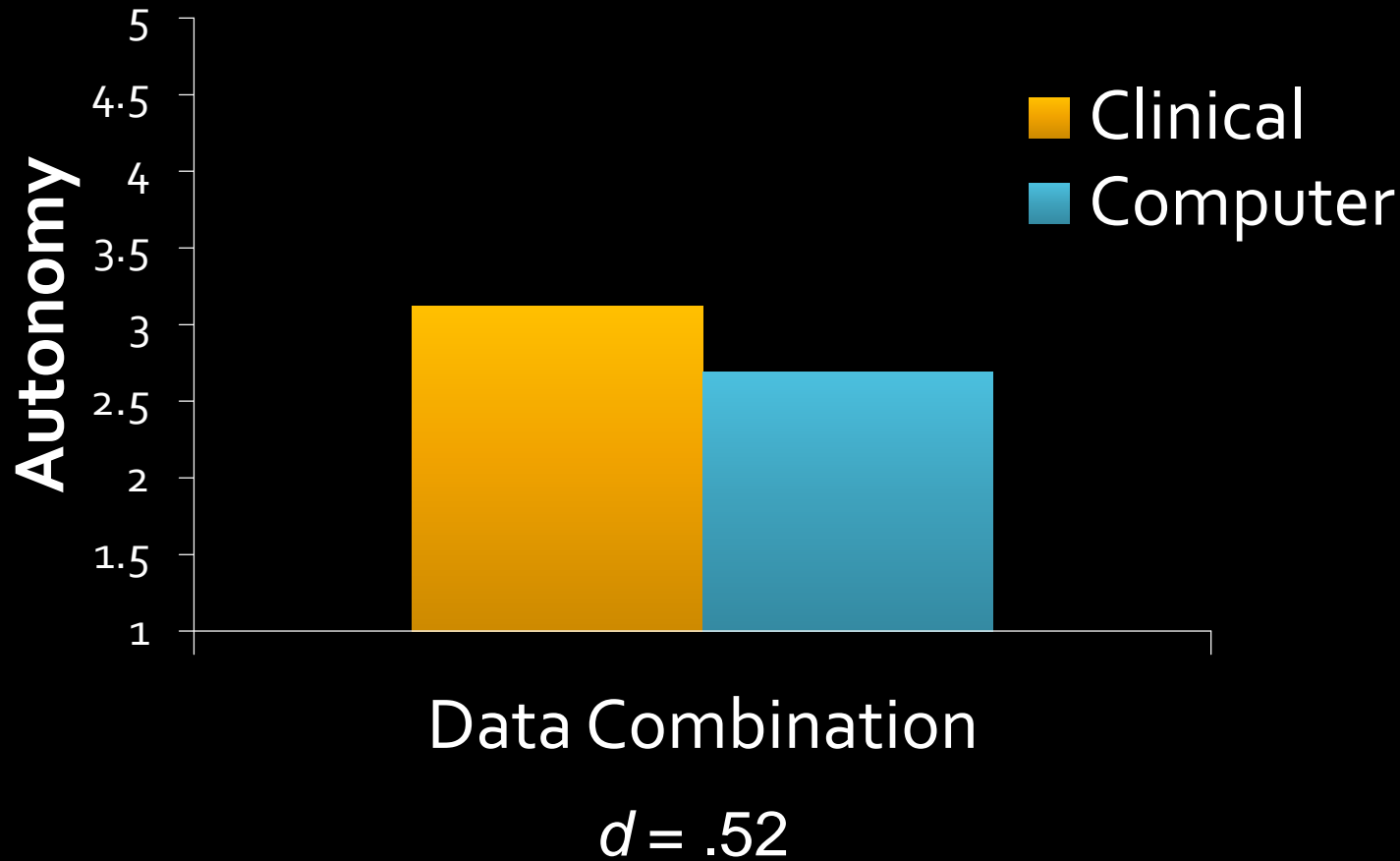


# Perceived Autonomy (n=296)



$d = 1.86$

# Perceived Autonomy (n=296)



# Resistance Factors

- Reluctance to give up old habits
- Reluctance to lose control
- **Need for new skills**

# Our Language

- $r$  = validity coefficient
- $r^2$  = coefficient of determination

Test



Performance

Muchinsky's (2004) experience in communicating a .50 validity coefficient for a mechanical comprehension test:

*...my pleasure regarding the findings was highly apparent to the client organization. It was at this point a senior company official said to me, "I fail to see the basis for your enthusiasm."*

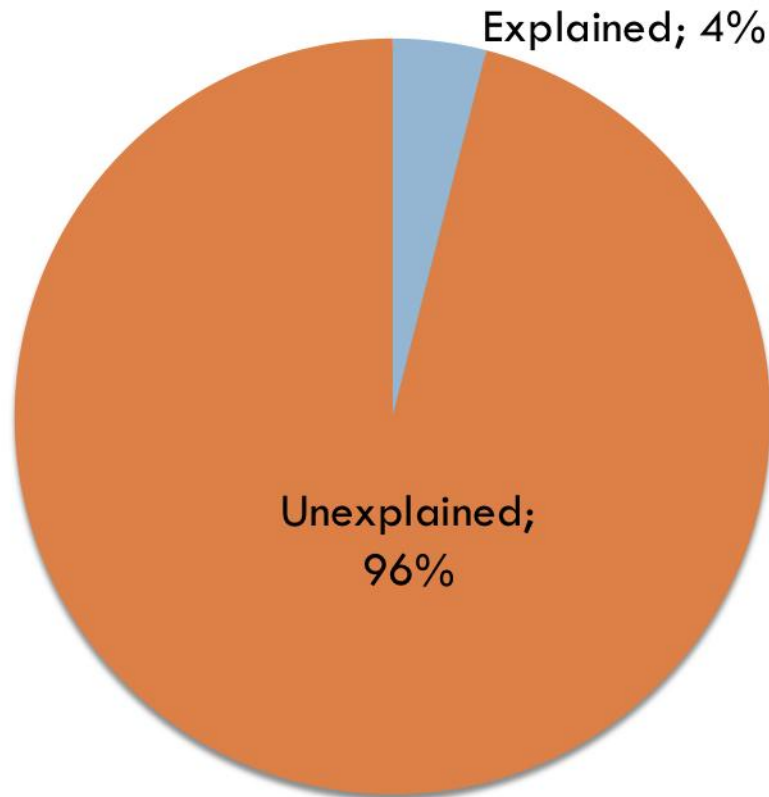
# What is the validity of this test?

TEST SCORE	SUCCEED	FAIL
Above Average	60%	40%
Below Average	40%	60%

$$r = .20$$

$$r^2 = .04$$

# Performance Variability

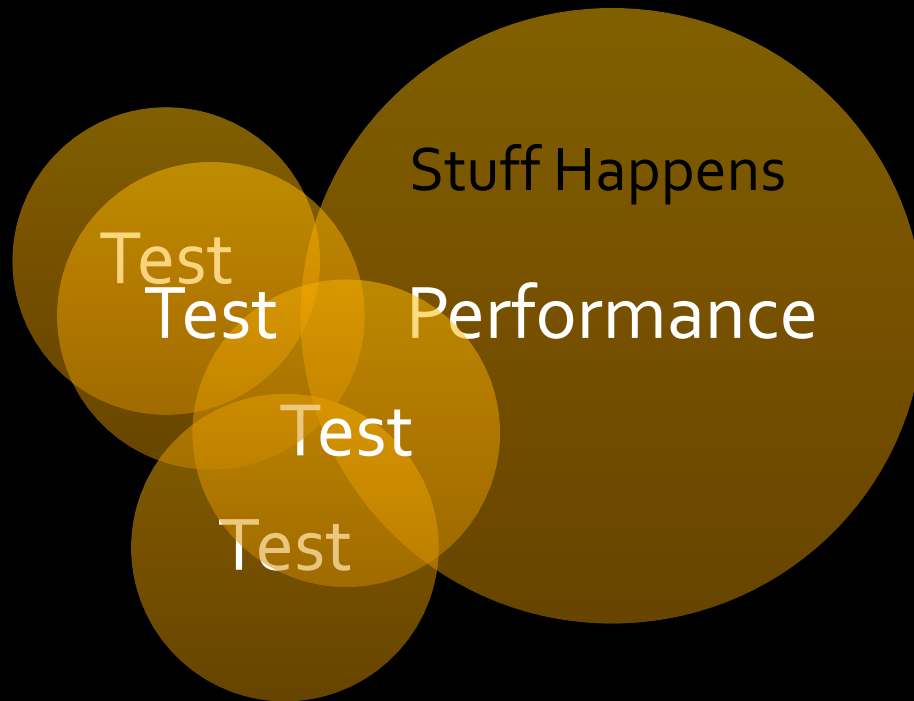


# 4% variance in roulette wheel





# Indeterminism



# Suggestions

- Provide context



# Presented alone (n=53)

- Applicants will undergo a traditional job interview that is tailored to each applicant. Studies have shown that these interviews correlate .20 with later performance on the job.

# Presented alone (n=51)

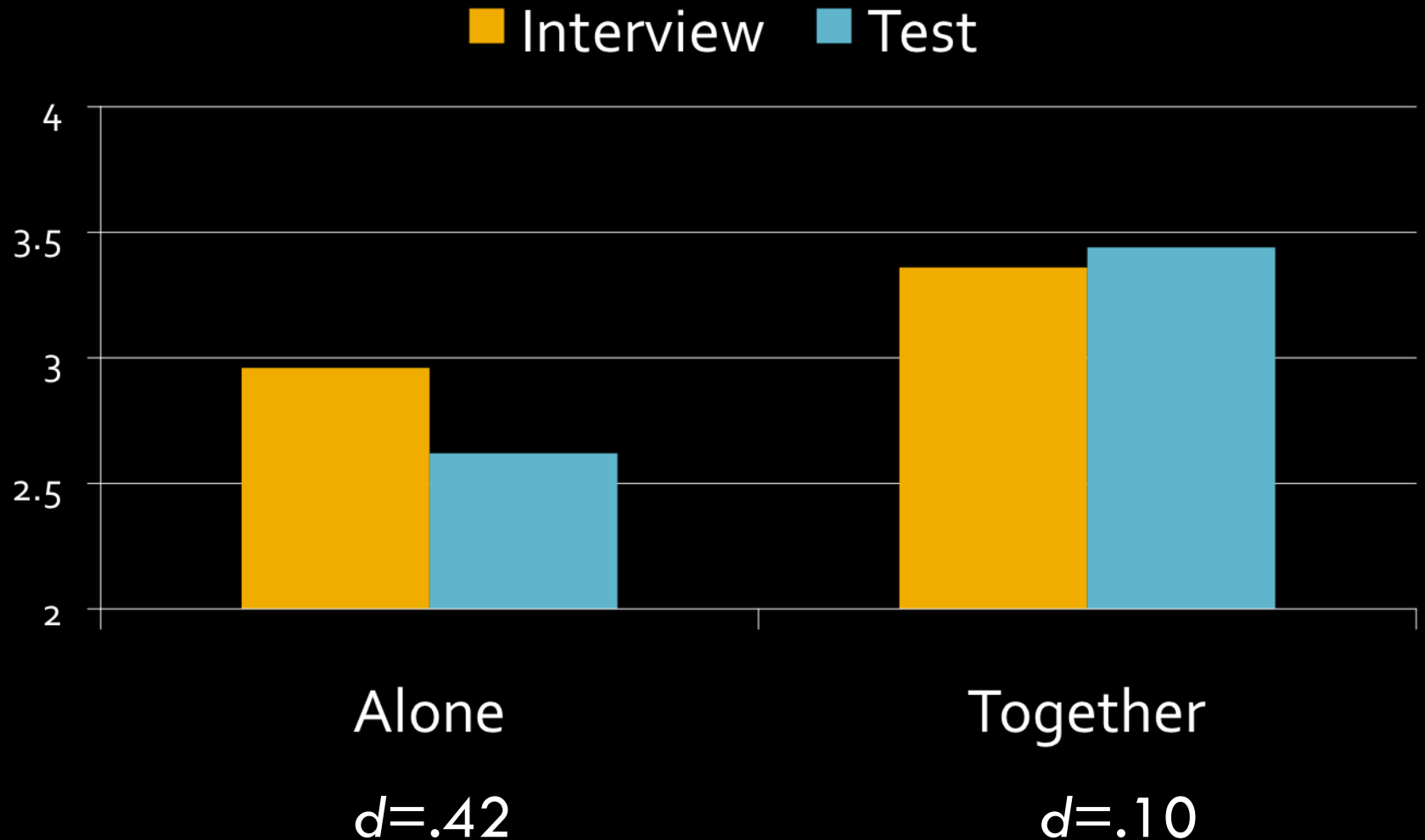
- Applicants will undergo a standardized test of general intelligence that presents the same questions to each applicant. Studies have shown that these interviews correlate .51 with later performance on the job.

# Presented together (n=108)

□ Applicants will undergo a traditional job interview that is tailored to each applicant. Studies have shown that these interviews correlate .20 with later performance on the job.

□ Applicants will undergo a standardized test of general intelligence that presents the same questions to each applicant. Studies have shown that these interviews correlate .51 with later performance on the job.

# Desirability alone vs. together



# Suggestions

- Provide context
- *Simplify*



*IF YOU CAN NOT CONVINCe THEM,  
CONFUSE THEM.*

-Harry S. Truman



$$\Delta\$ = [(N)(\Delta r_{xy})(SD_y)] - [(A)(C)]$$

$\Delta\$$  = the average dollar payoff

$N$  = the number of hired

$SD_y$  = 40% of avg. annual salary

$\Delta r_{xy}$  = improvement in validity

$A$  = number of applicants

$C$  = cost of test

Johns (1993)

*Selection  
practices  
viewed as  
matters of  
management  
"style"*

- Personnel practices are viewed as administrative innovations—not technical innovations.
- ROI arguments not effective for administrative innovations.

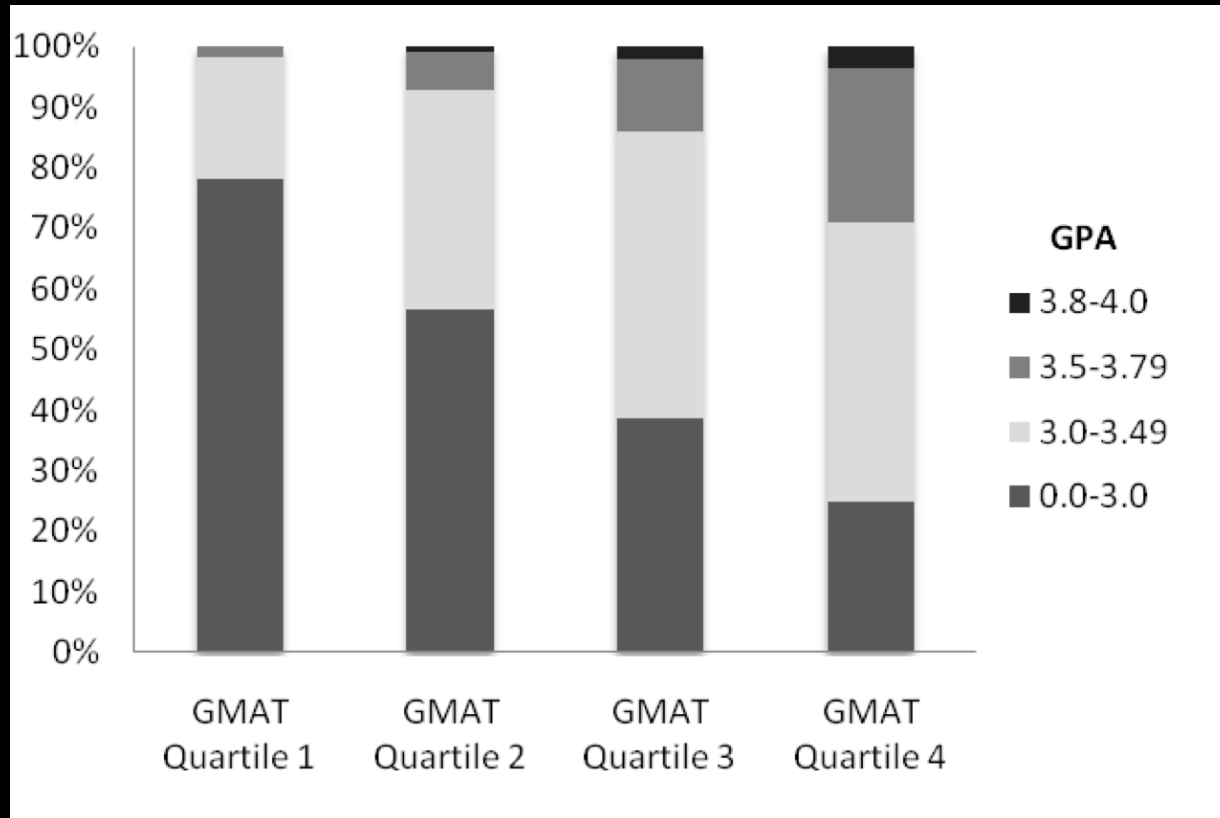
# Simplify with language

- “Hiring someone with this new test provides you a 34% increase in successful employees.”

# Taylor-Russell (1939) Tables

- validity coefficient = .25;  $r^2 = .06$
- Assumes you can be selective (.10 selection ratio)

# Illustrate



Kuncel & Rigdon (in press) *Handbook of Psychology* (industrial-organizational)

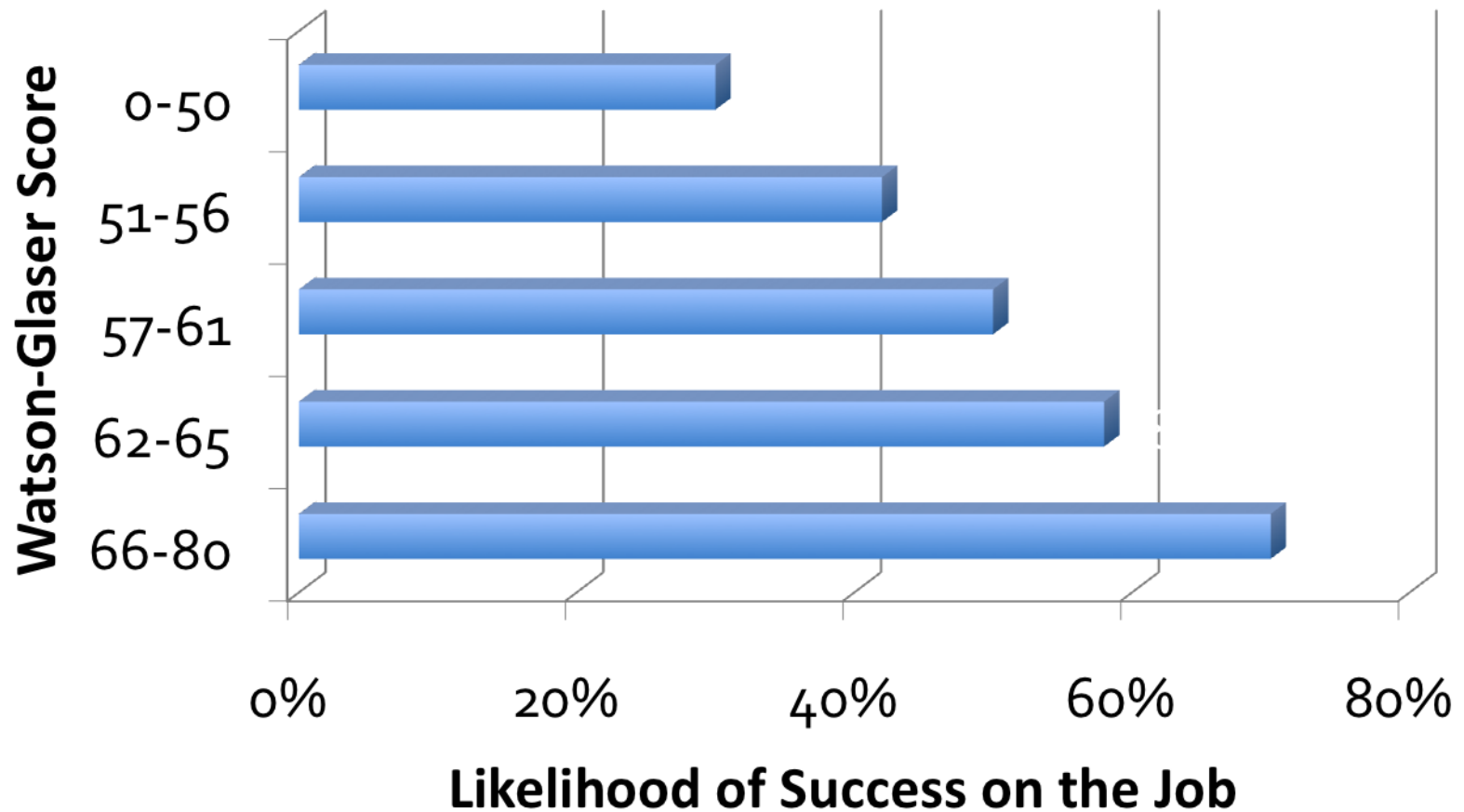
# BESD (Rosenthal & Rubin, 1982)

TEST SCORE	SUCCEED	FAIL
Above Average	80%	20%
Below Average	20%	80%

$r = .40$

$$r^2 = .16$$

# Expectancy Chart



Assumes  $r = .35$ ; Success=top 50% in job performance

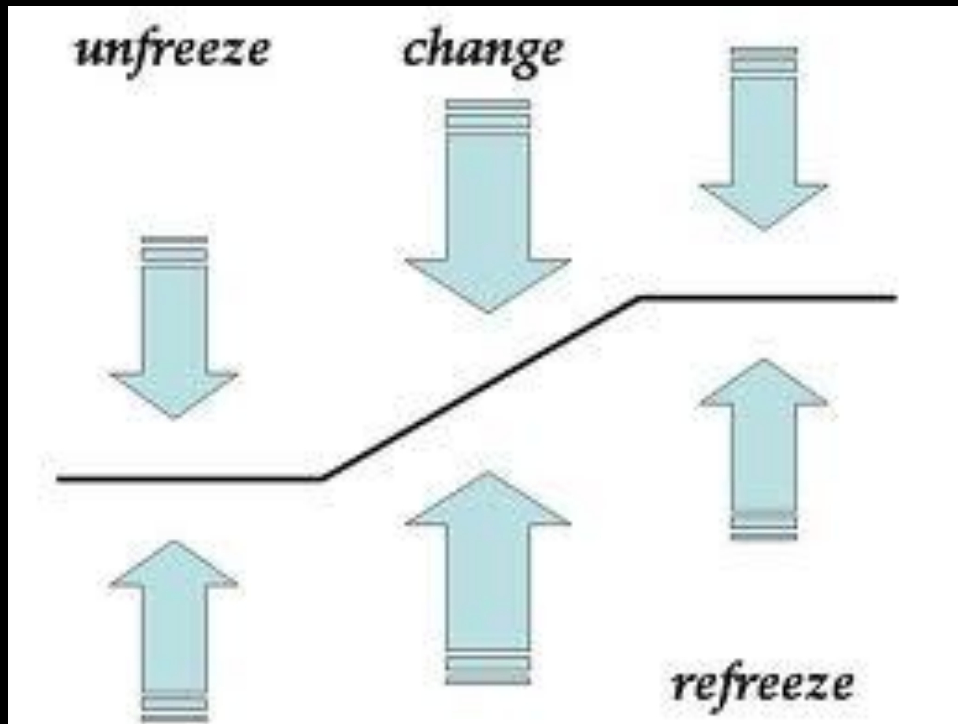
# Suggestions

- Provide context
- Simplify
- **Involve users**



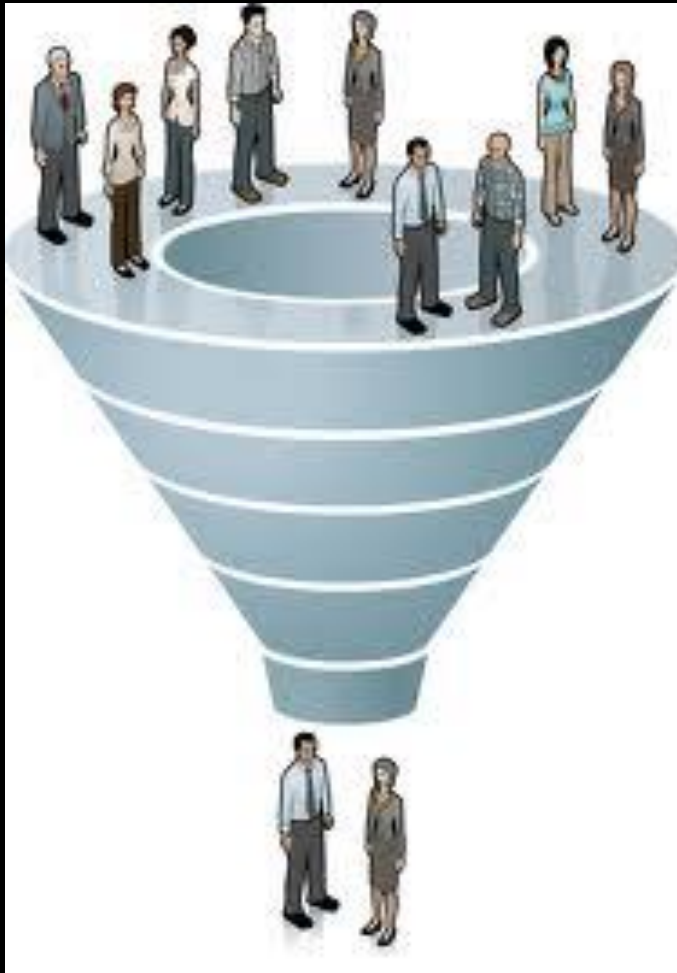


# Ownership



# Involvement

- SMEs
- Development of interview and test items
- Decision weights
- Criteria



# Decision aides for screening



Go nuts with  
nuance and  
detail!

# Remember.....



- **C**ontext
- **S**implify
- **I**nvolve