

Psychosis and Risk Assessment

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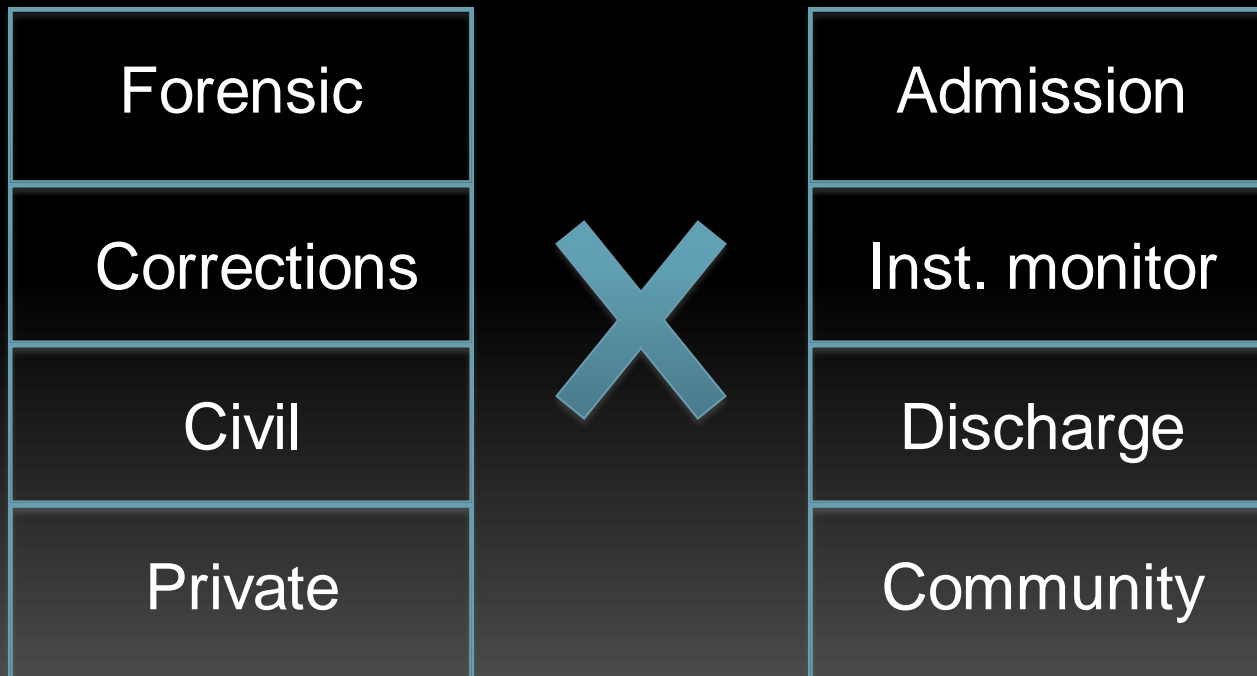


Topics

- Role of psychosis within risk assessment
 - > What role does it play?
 - > What role should it play?
- Role of risk assessment within psychosis
 - > Does it “work?”

Common Applications

- Legal, ethical, clinical rationale



What Role Does Psychosis Play in the
Risk Assessment Field?

Some believe it matters...

- Silver (2006)

“The vast body of research conducted ... suggests that: [a]lthough most people with major mental disorder do not engage in violence, the likelihood of committing violence is greater for people with a major mental disorder than for those without.”

- Hodgins et al. (1998)

- > “has some societal significance”

Some believe it doesn't...

- Quinsey et al. (1998/2006)

“Psychosis, psychotic symptoms, and exacerbation of those symptoms have little value as indicators of the risk of violence in offender populations”

- Bonta et al. (1998)

- > 11 samples of mentally disordered offenders
- > Psychosis and violence, mean correlation?

-.04

Risk Assessment “Families”

*Unstructured Clinical
Judgment*

*Structured Decision
Making*

Actuarial Prediction

*Structured Professional
Judgment (SPJ)*



VRAG Items

(Quinsey et al., 2006)

- PCL-R score
- Elem. school problems
- Personality disorder
- Age (—)
- Separated from parents under age 16
- Failure on prior conditional release
- Nonviolent offense history
- Never married
- Schizophrenia (—)
- Victim injury (—)
- Alcohol abuse
- Female victim (—)

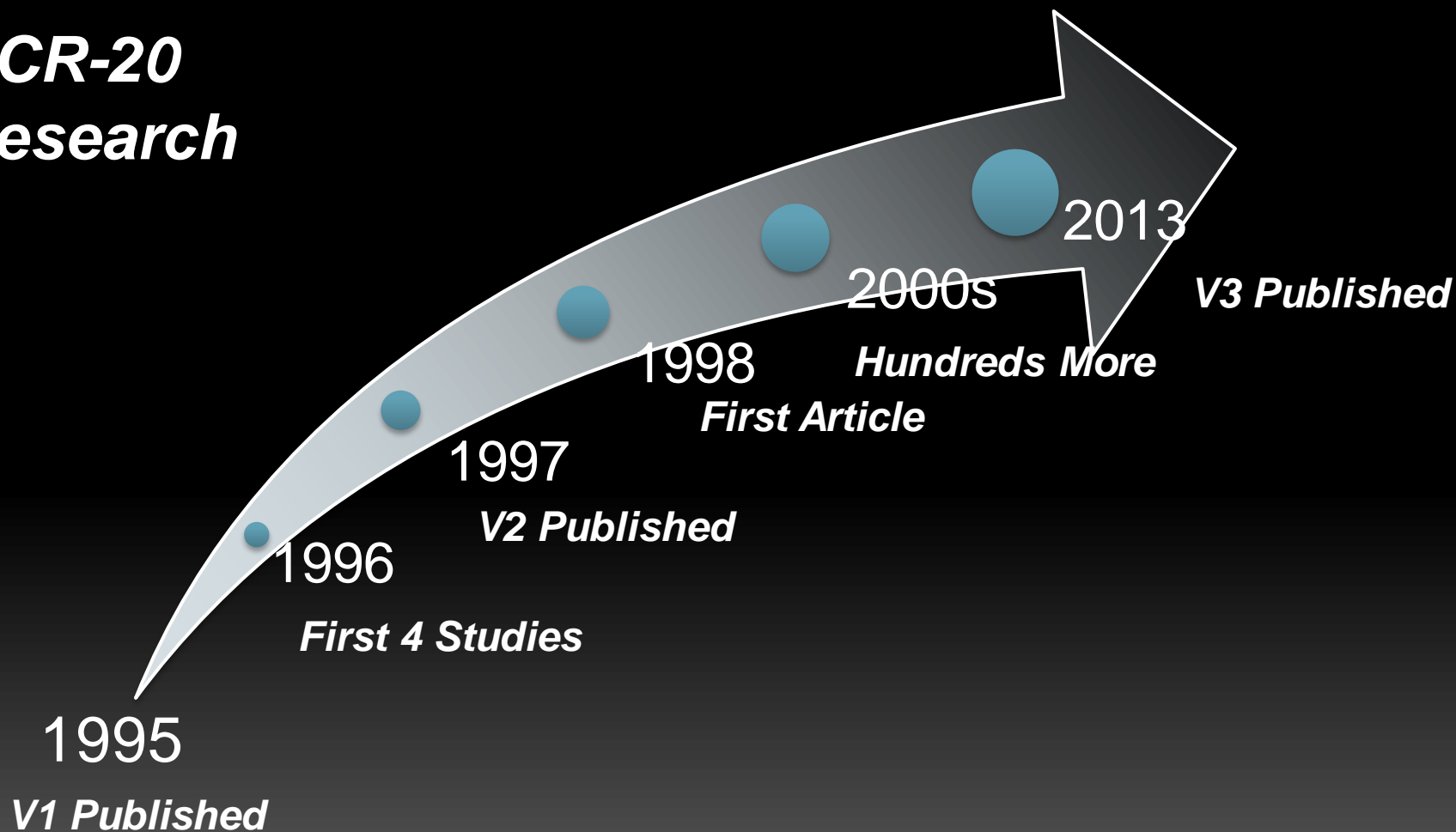
Mult R = .44

Conceptual Basis of the HCR-20

Version 3 (Douglas, Hart, Webster, & Belfrage, 2013)

Violence Risk		
Historical	Clinical	Risk Management
Past Documented (10 Items)	Present (Dynamic) Observed (5 Items)	Future (Speculative) Projected (5 Items)

HCR-20 Research



HCR-20 Version 3 Risk Factors

(Historical Scale)

H1. Violence

H2. Other Antisocial
Behavior

H3. Relationships

H4. Employment

H5. Substance Use

H6. Mental Disorder

H7. Personality Disorder

H8. Traumatic Experiences

H9. Violent Attitudes

H10. Tx/Supervision
Response

H6a. Psychotic Disorders

H6b. Major Mood Disorders

H6c. Other Major Mental Disorders

HCR-20 V3

(Clinical and Risk Management Scales)

C1. Insight

C2. Violent Ideation or
Intent

C3. Sx of Major Mental
Disorder

C4. Instability

C5. Tx / Supervision
Response

R1. Professional Services

R2. Living Situation

R3. Personal Support

R4. Tx / Supervision
Response

R5. Stress or Coping

C3a. Psychotic Disorders

C3b. Major Mood Disorders

C3c. Other Major Mental Disorders

SPJ Decision Steps (HCR-20 V3)

- 1 • Gather relevant information
- 2 • Determine presence of risk factors
- 3 • Determine relevance of risk factors
- 4 • Develop formulation of violence risk
- 5 • Develop primary scenarios of violence
- 6 • Develop case management plans
- 7 • Develop final opinions

Why the Disagreement?



“The World”

MH

CJ

P

FMH

Synthesizing the Literature

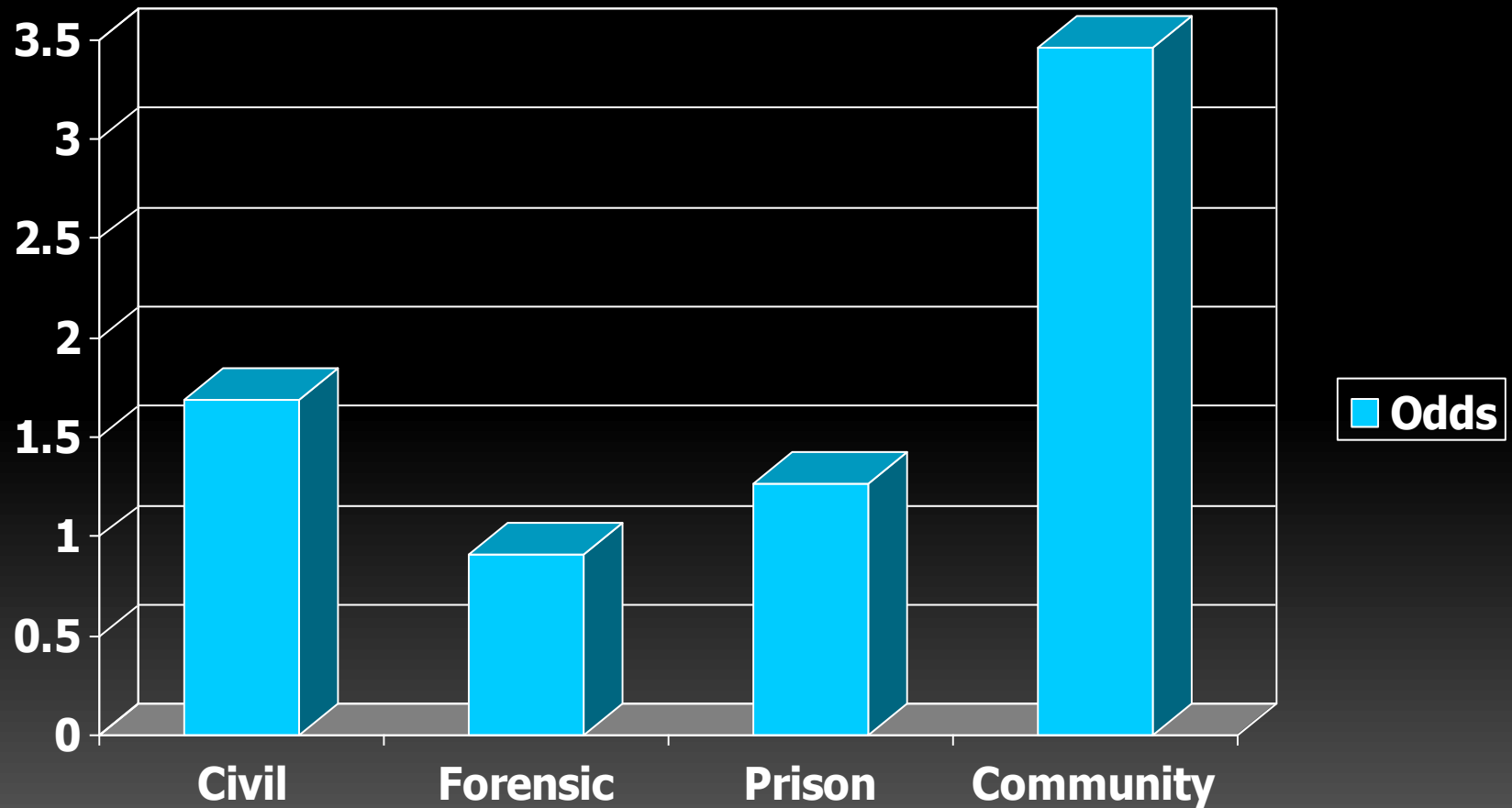
(Douglas, Guy, & Hart, 2009; Psychological Bulletin)

- Meta-analysis of 204 studies
- Questions
 1. What is the overall relationship between psychosis and violence?
 2. Are there any important moderators of this relationship?
 - ▶ Setting / sample?
 - ▶ Type of psychosis?
 - ▶ Severity of violence?
 - ▶ Comparison group?

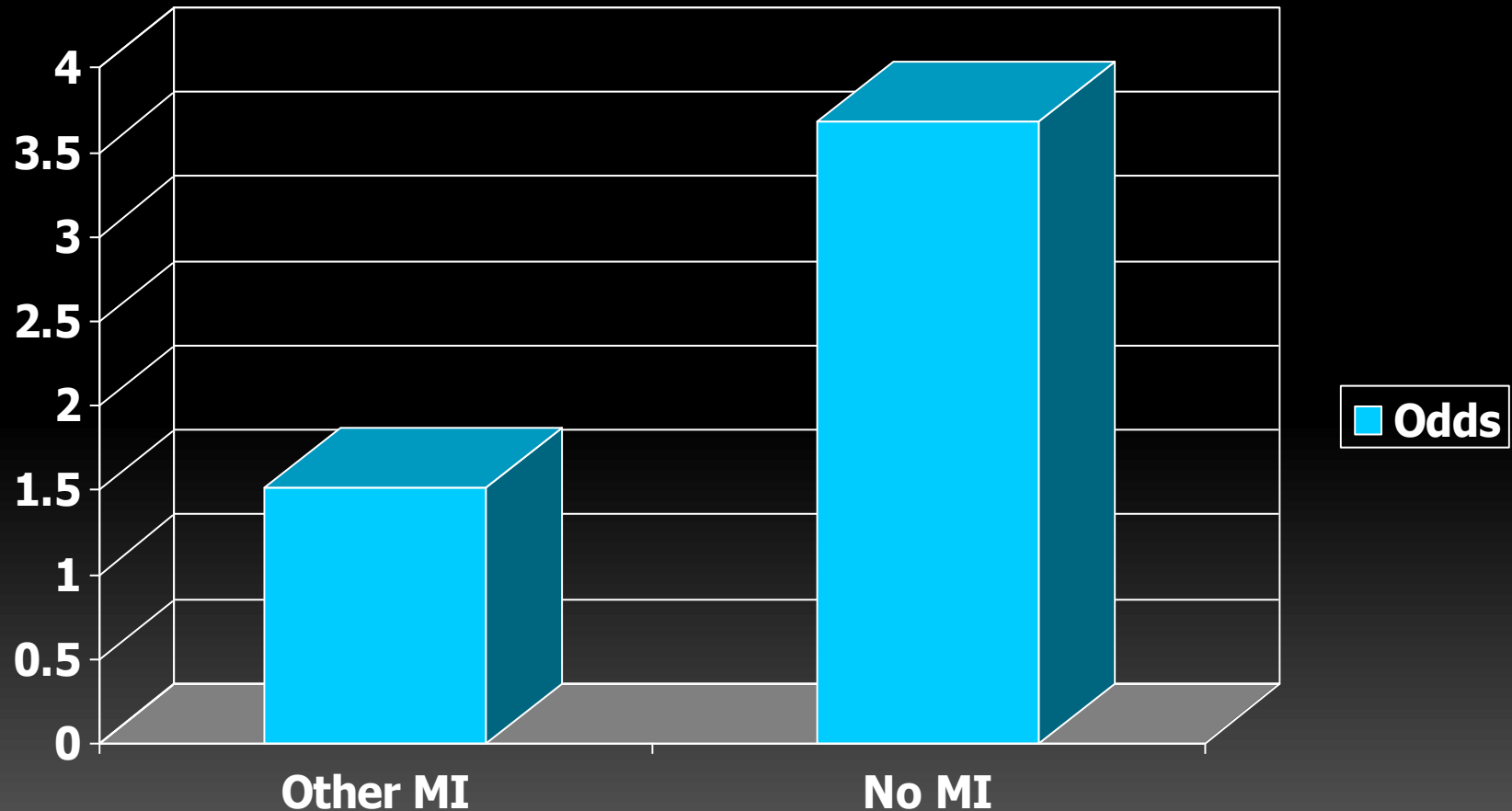
General Findings

- Overall association
 - > Mean odds ratio = 3.49
 - > Median odds ratio = 1.68
- ~25% of studies: negative association (OR < 1)
- ~25% of studies: large association (OR > 3)
- What explains this heterogeneity?

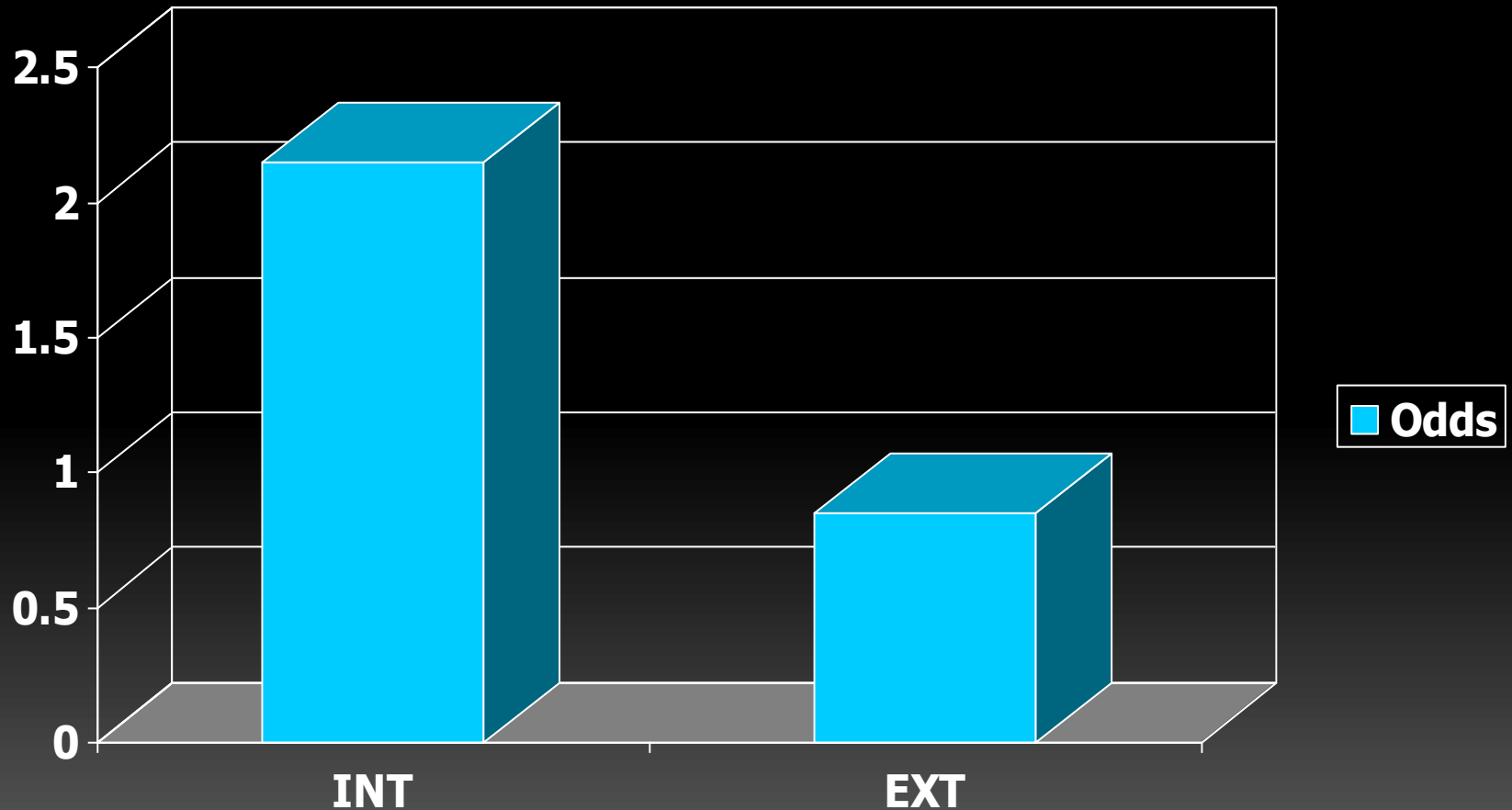
Moderators: Sample



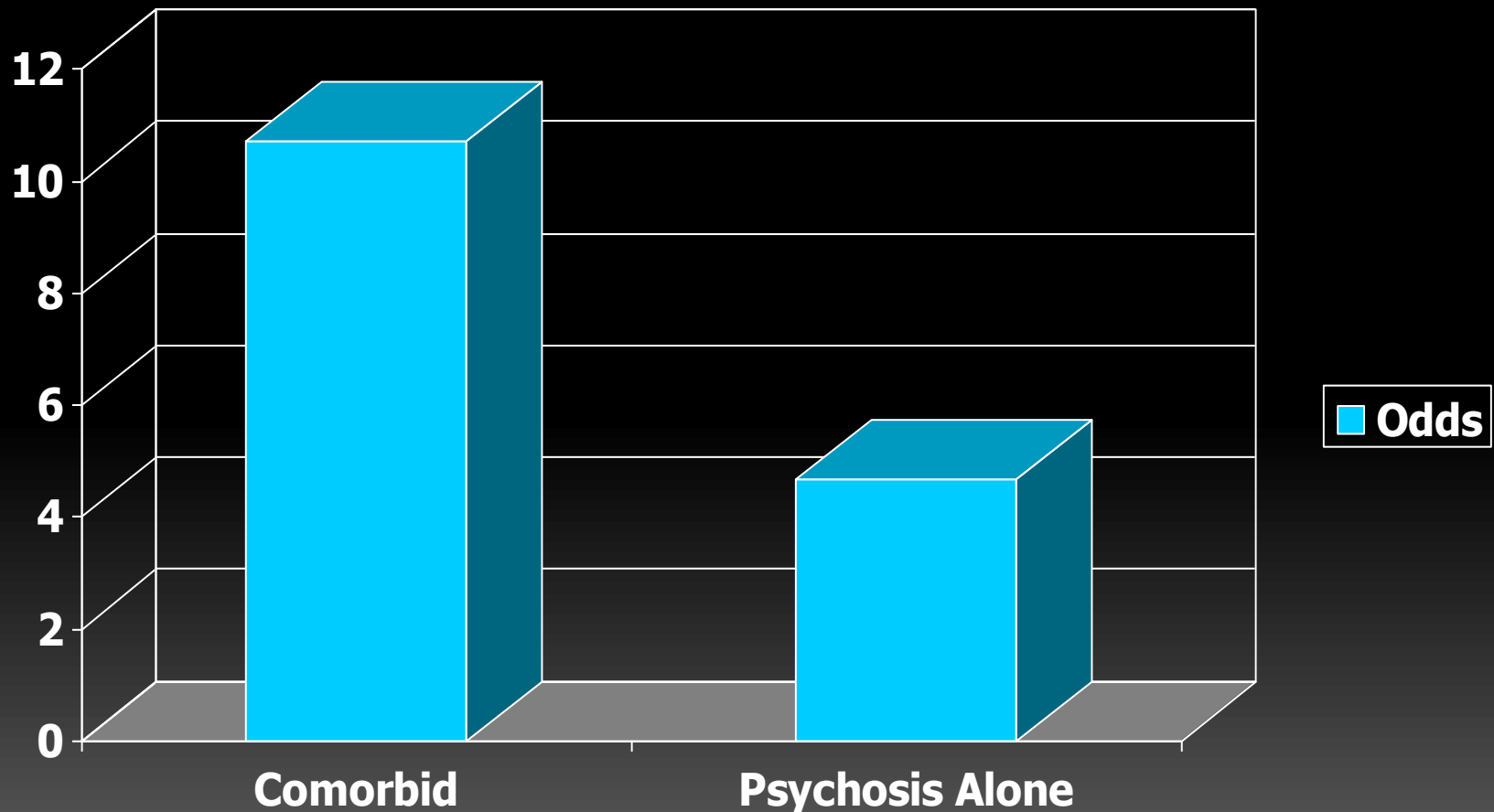
Moderators: Comparison Group



Moderators: What other MI?

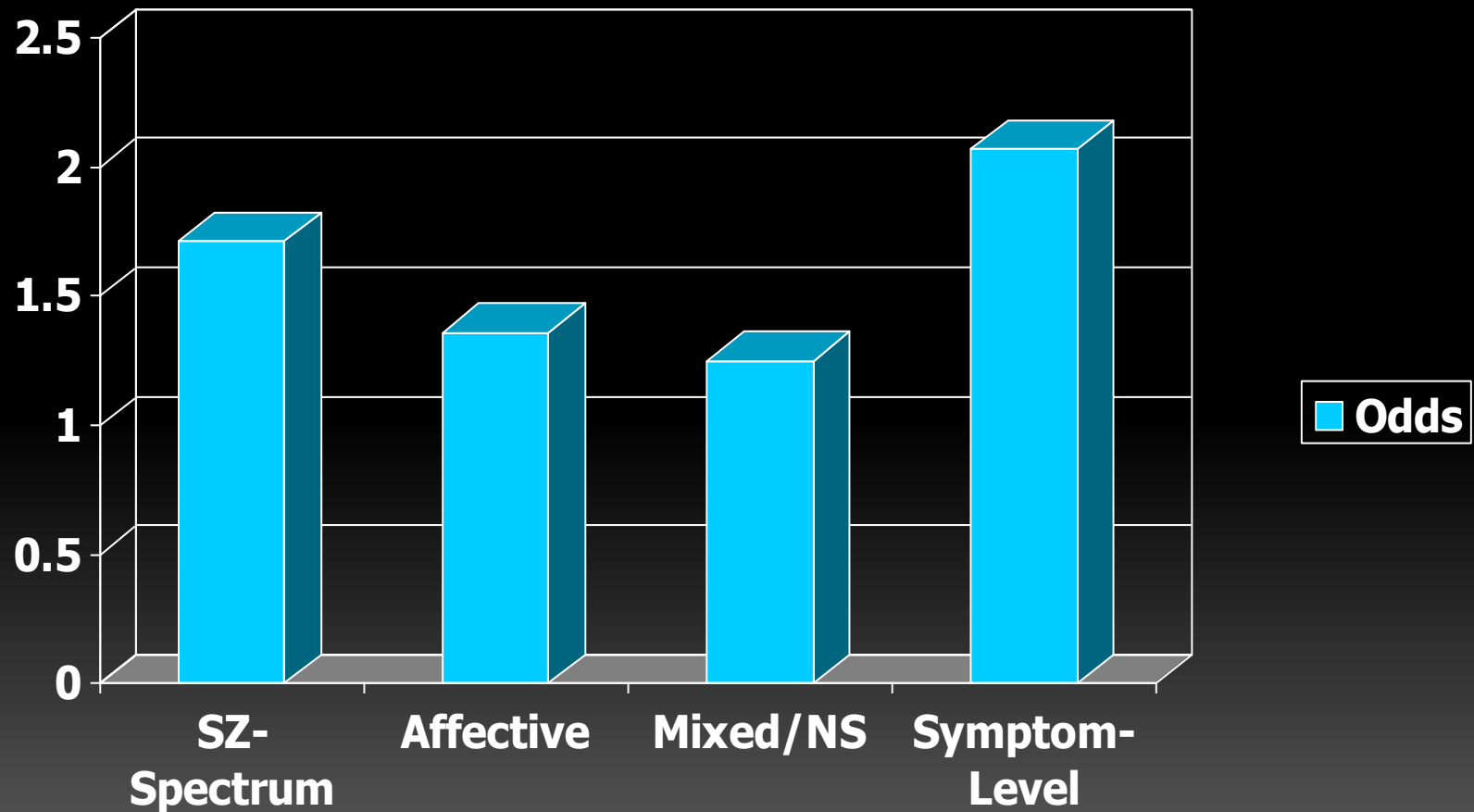


Moderators: Substance Use Comorbidity

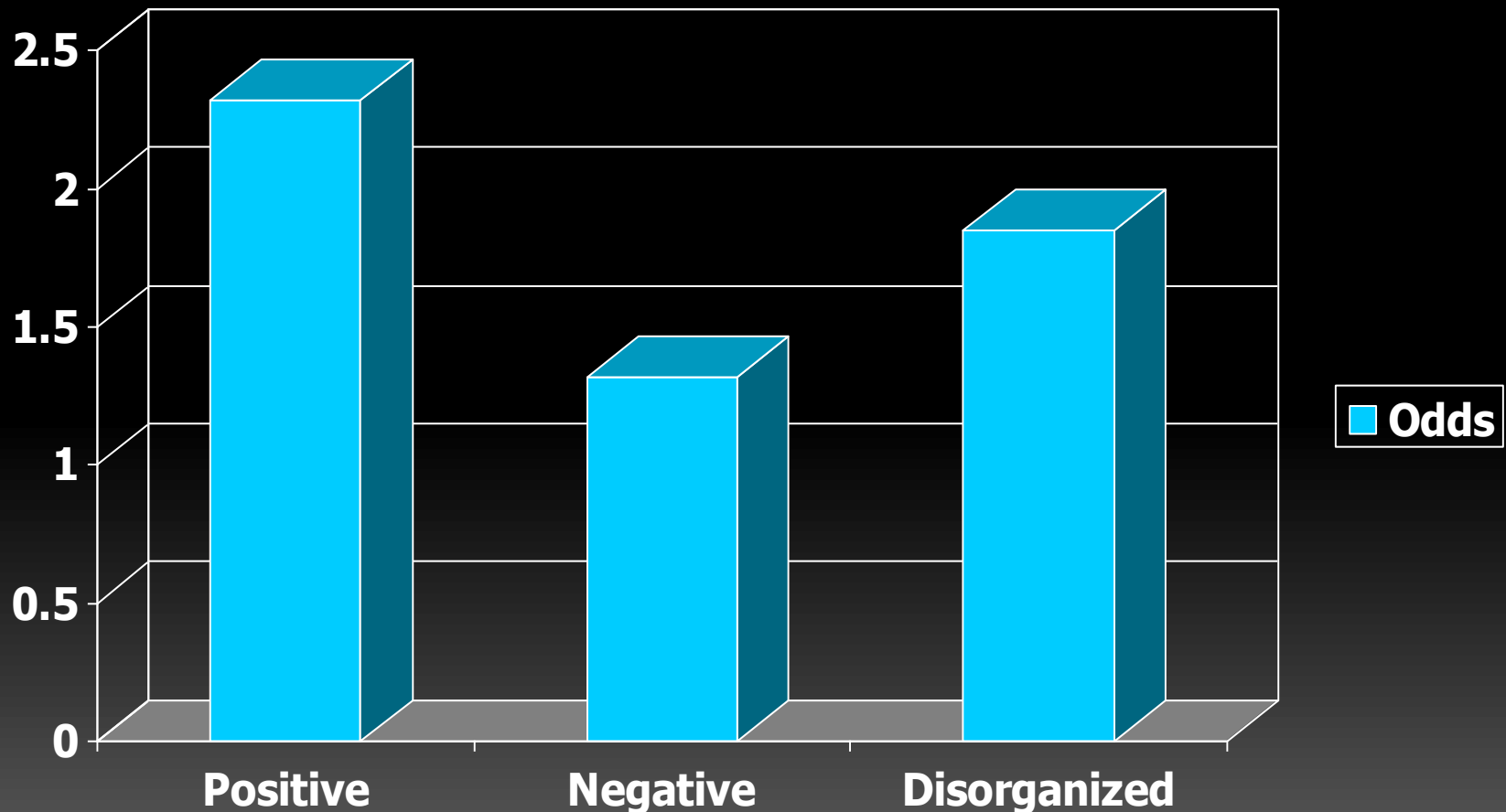


Note: Small k (12)

Moderators: How Define Psychosis?

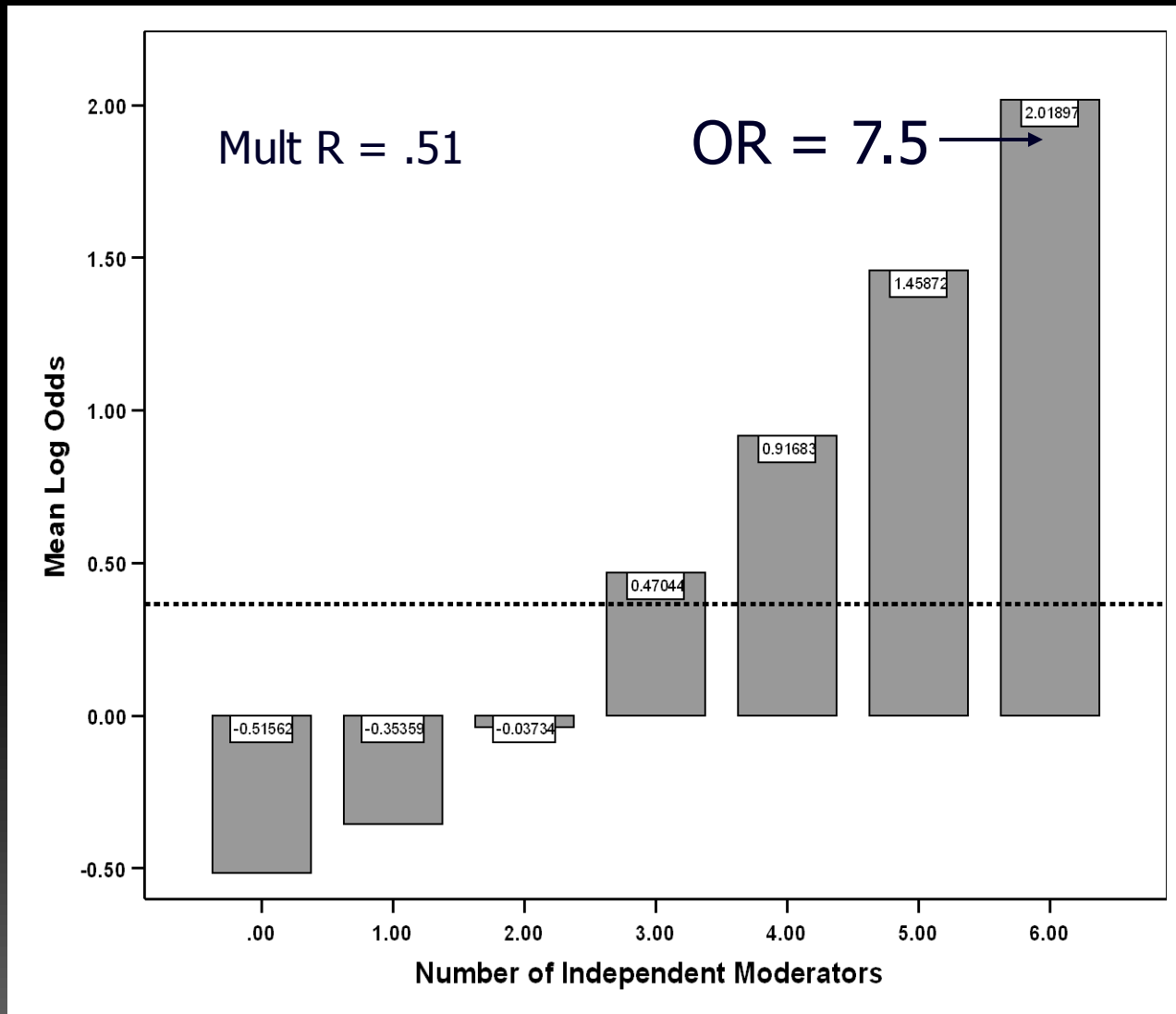


Moderators: What Symptoms?



Note: No Difference Between Type of Positive Symptom

Accounting for Heterogeneity



Douglas et al (2009, p. 696)

“Posing the question, “Are individuals with psychosis more likely to be violent than individuals without psychosis?” is sort of like asking whether 10-year olds are tall. Compared with toddlers, they certainly are. Compared with adults, they are decidedly short. And so it is with psychosis.”

Effects on Risk Assessment Field

- Sampling and item selection criteria
- SPJ instruments
 - > Logical or rational
 - > Comprehensive
- Actuarial instruments
 - > Empirical, direct effect model
 - > Sample-specific
 - > Between-groups assumptions
- Measurement of psychosis

Violence Attributable to Psychosis?

- Max Birchwood – other risk factors?
- Criminalization?
 - > Mental illness → crime (violence)
 - > Treated MI ≠ crime (violence)
 - > “General” risk factors predict crime (violence) amongst people with MI (Bonta et al., 1998)
 - > 18 of 20 risk factors on HCR-20 V3 are not specific to mental illness

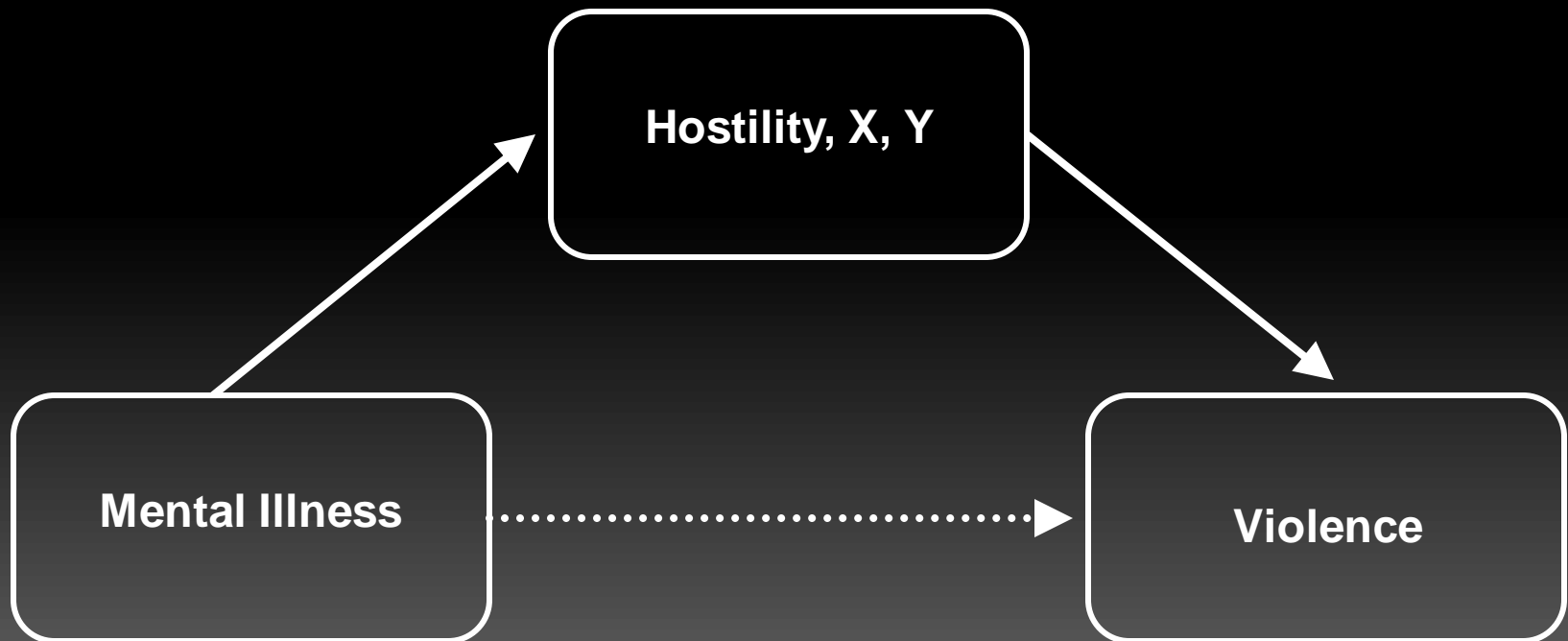
Tests of Criminalization

- Junginger et al (2006)
 - > 113 mentally ill diversion arrestees
 - > 8% attributable to psychosis or other Sx
- Peterson et al (2010)
 - > 111 mentally ill parolees
 - > 7% of “offence pattern” due to psychosis

“Moderated Mediation”

(Skeem et al., 2011)

- For ~10% of MI offenders, direct effect
- For ~90%, indirect (mediated) or no effect



However...

- Focus on crime, not violence per se
- For Junginger, just one offence
- If psychosis is mediated by X, is psychosis no longer important?
- If distal psychosis gives rise to later conditions which elevate risk, is it no longer important?
- Must there be only one “cause?”
- Aren't all risk factors only important in a minority of violent incidents?

“Central Eight” Risk Factors

(Level of Service approach; Andrews, 2012)

“Big 4”

- Hx antisocial beh
- Antisocial personality pattern
- Antisocial attitudes
- Antisocial associates

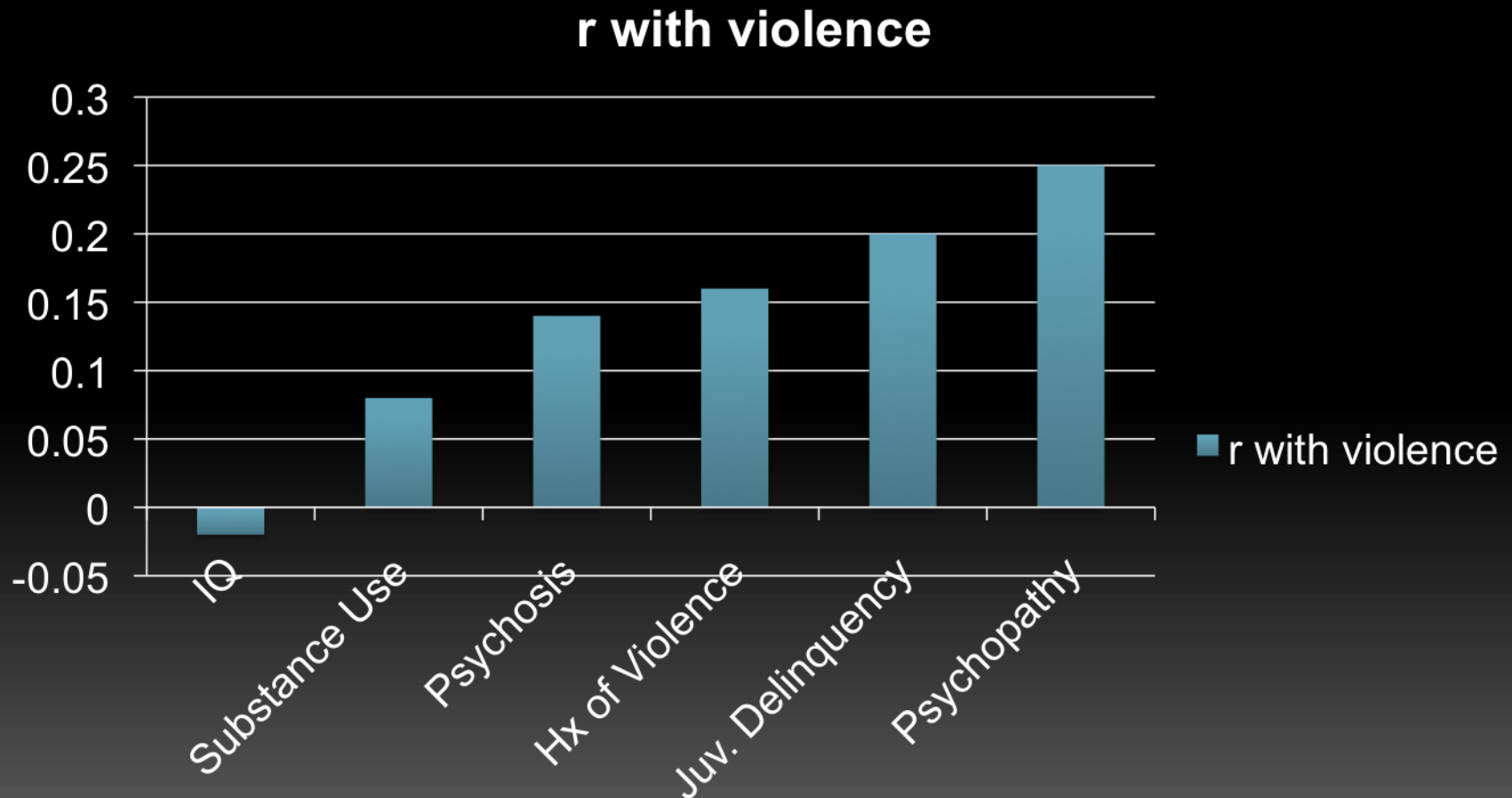
$r = .26$

“Moderate 4”

- Family/marital probs
- Educ/employ probs
- Leisure/recreation probs
- Substance abuse

$r = .17$

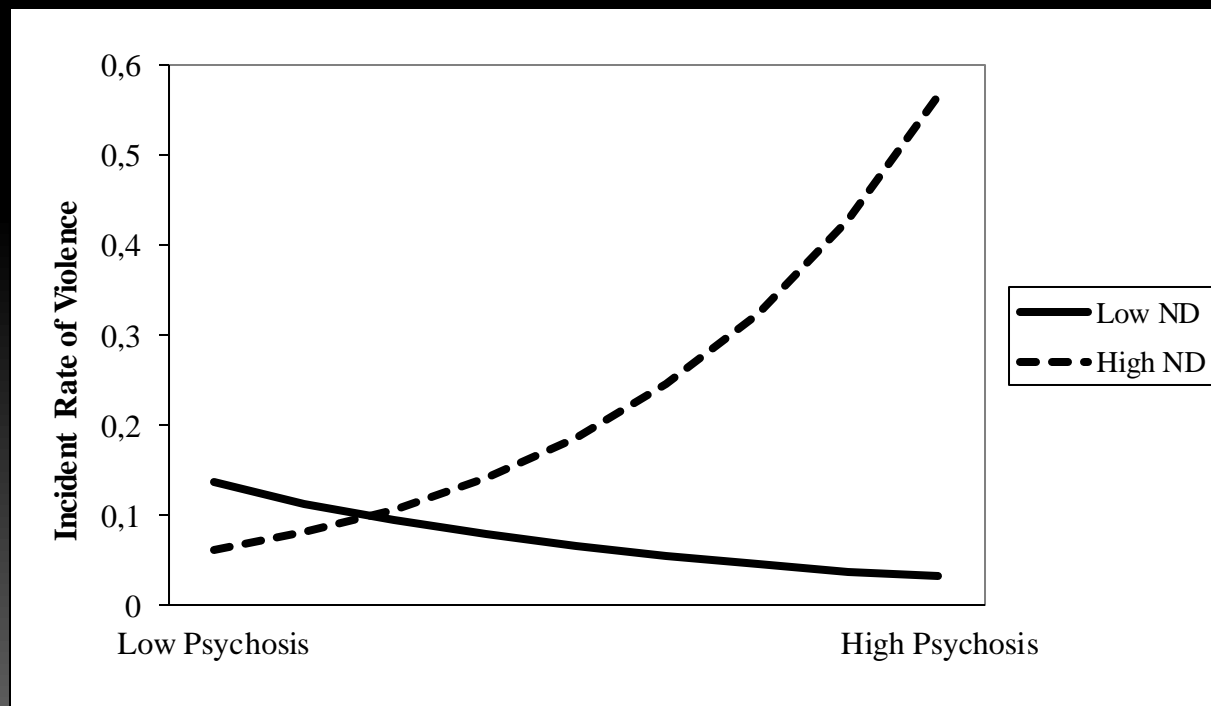
Comparison of Risk Factors



Moderation Effects

(Shaffer, Blanchard, & Douglas, under review)

- 261 community residents; baseline + 6m FU
- Psychosis; neighbourhood disadvantage
- Main effect for psychosis = .02 (ns)



So...

- ⦿ Psychosis has a small, but real, main effect
- ⦿ Psychosis may be mediated
- ⦿ Psychosis may be moderated

What Role Should Psychosis Play in the Risk Assessment Field?

“[P]sychosis should be evaluated in all violence risk assessments” (Douglas et al., 2009, p. 696)

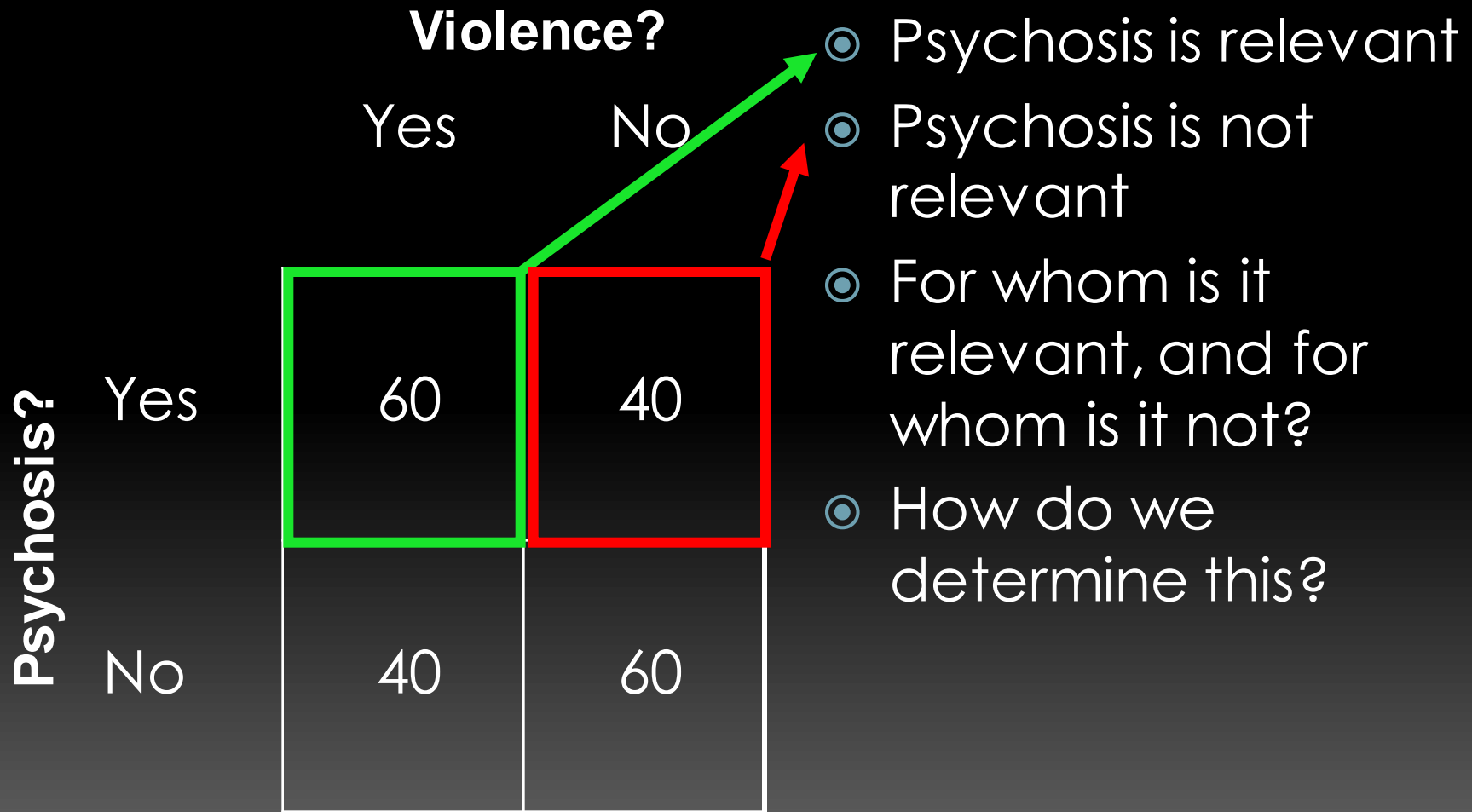
Why might Psychosis be a risk factor?

- Idiographic vs Nomothetic

“every man is in certain respects (a) like all other men, (b) like some other men, (c) like no other man”

(Kluckhohn & Murray, 1953, p. 53)

Psychosis, at $r = .20$



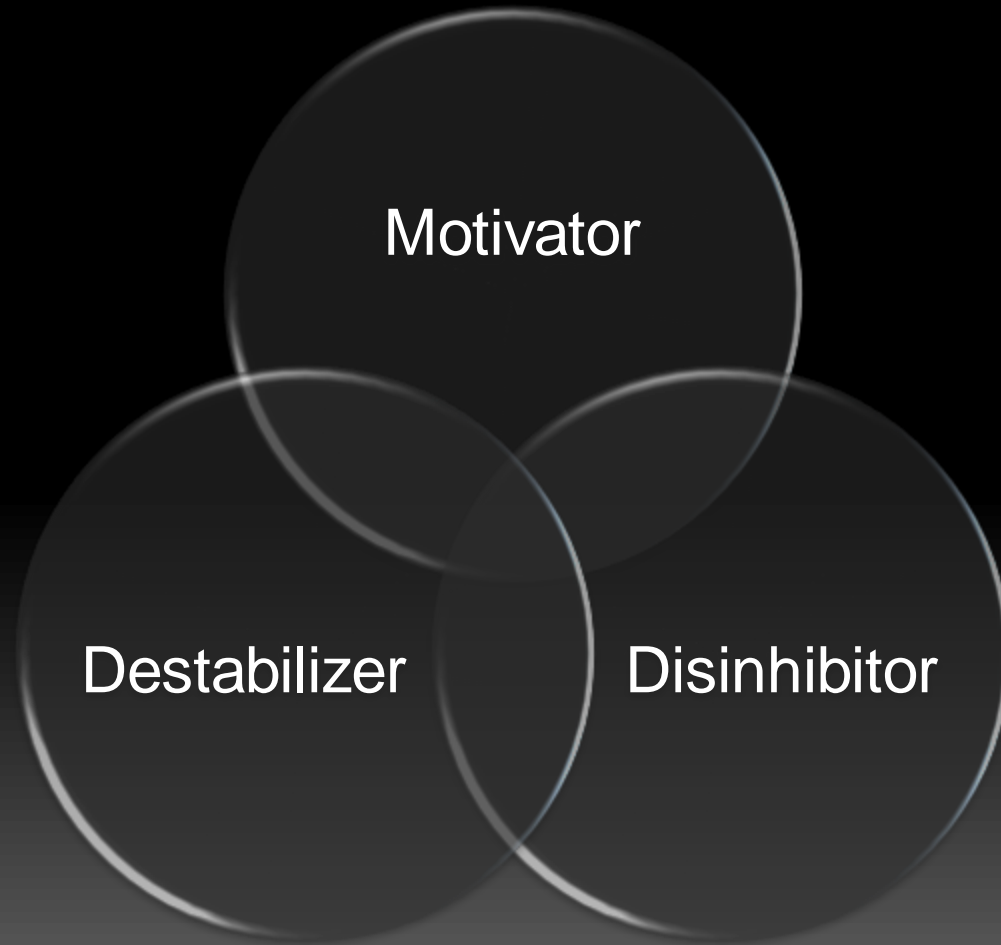
Individual Relevance

- No risk factors is equally relevant to all people (Recall Erik Johnsen)
- Validity estimates are group-based averaged estimates
- If a risk factor is present, can we determine if it is relevant?
- If relevant, how so?
 - Direct? Indirect?

Why might Sx increase risk?

- “Affect - distress / Belief Maintenance Factors” (Taylor, 1998, 2008, yesterday!)
- “Psychotic Motivation” (Junginger, 2004)
 - > Symptom-consistent violence
- “Tense Situations” (Hiday, 2006)
- Vulnerability to other risks
 - > “geographic/downward drift”
 - > Recall neighbourhoods (Richard Bentall; Shaffer et al., 2014)
- State-trait model
 - > Periodic exacerbation of symptoms

Causal Roles



Recall Richard Bentall

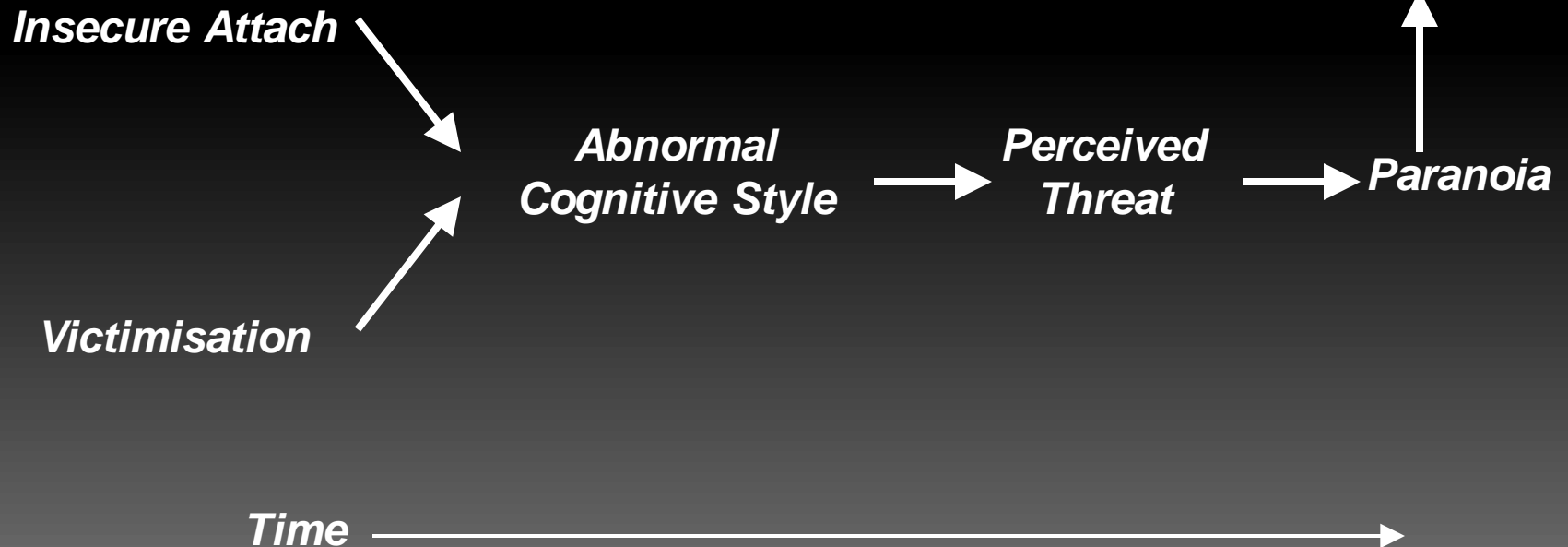
(an artist's rendition...)

Recall Max Birchwood

Why do some people act, and others don't?

Perceived threat? Affect (fear)? Safety behaviors?

Early / late onset: Conduct disorder → Psychosis



HCR-20 V3 Item C3 Definition

- ⦿ This risk factor pertains to whether the symptoms of major mental disorder, as defined under H6, currently are or recently have been active. As with H6, we recommend that evaluators consider symptoms of the following three types of major mental disorder: (a) psychotic disorders, (b) major mood disorders, and (c) other major mental disorders.
- ⦿ For psychotic disorders, evaluators should pay special attention to hallucinations, delusions, or ideation with persecutory, angry, violent, or nihilistic content, especially those associated with emotional distress; and also to behavior disturbances that include agitation.

HCR-20 V3 Item C3 Indicators

- ⦿ Delusions with morbid, hostile, paranoid, jealous/erotomantic, or violent themes
- ⦿ Hallucinations with morbid, hostile, paranoid, jealous/erotomantic, or violent themes
- ⦿ Symptom-related distress, agitation or anxiety
- ⦿ Has recently acted on a command hallucination
- ⦿ Has recently acted on a delusion
- ⦿ Delusions, if present, are well-organized and tightly held
- ⦿ Symptoms interfere with the ability to test reality
- ⦿ Worsening trajectory

Knowledge of Mental Illness is Not Enough

- Among persons with major mental illnesses, all the “other” risk factors still apply
- There are no pathognomonic risk factors
- Is it ignorable?

The Role of Risk
Assessment in Psychosis:
Does Risk Assessment “Work?”

Meta-Analyses

- ◉ Comparable predictive validity

- > Campbell et al. (2009)
- > Guy et al. (2010)
- > Yang et al. (2010)
- > Singh et al. (2011)
- > Fazel et al. (2012)

- ◉ Incremental validity of HCR-20 viz PCL-R/SV

- > Guy et al. (2010)
- > Yang et al. (2010)

Does Diagnosis Moderate?

- Singh et al., 2011; Yang et al., 2010
 - No moderating effect for diagnosis
- O'Shea et al (2013) meta-analysis
 - Inpatient aggression in psychiatric facilities
 - HCR-20 slightly more predictive in samples with more SZ diagnoses

Final Risk Judgments?

Final Risk Judgments

- HCR-20 SPJ Judgments and Violence
- 20 samples (N = 2,079)

$$\text{Mdn}_{\text{AUC}} = .78$$

(0.55, 0.56, 0.63, 0.64, 0.65, 0.69, 0.7,
0.7, 0.77, 0.78, 0.78, 0.79, 0.79, 0.8,
0.81, 0.83, 0.85, 0.86, 0.89, 0.91)

Forensic Psychiatric, Community

Douglas, Ogloff, & Hart (2003), *Psychiatric Services*

- Research questions

- > Reliability and validity of *structured clinical risk ratings*

- Method

- > 100 forensic psychiatric (NCRMD) patients released from maximum security institution
 - > Violence measured through criminal records and records of re-admission to forensic hospital

Validity: Frequency of Violence Across Risk Judgments

<i>N</i> =100	Risk Level	Any	Phys.
<i>Douglas, Ogloff, & Hart (2003)</i>	Low (<i>n</i> =23)	2 (9%)	1 (4%)
	Mod (<i>n</i> =64)	12 (19%)	7 (11%)
	High (<i>n</i> =13)	8 (62%)	7 (54%)
	Base rates	22%	15%

SPJ vs Actuarial

(Hierarchical Cox proportional hazard analysis)

- Physical violence
- H, C, and R scales entered 1st
 - > $\chi^2 = 9.9, p < .05$
- HCR-20 clinical judgments (L, M, H) entered 2nd
 - > Significant model improvement ($\Delta\chi^2 = 9.8, p < .01$)
 - > Overall model $\chi^2 = 20.07, p < .0001$
 - > Only the clinical judgments remain significant
 - $e^B = 9.44, p < .003$

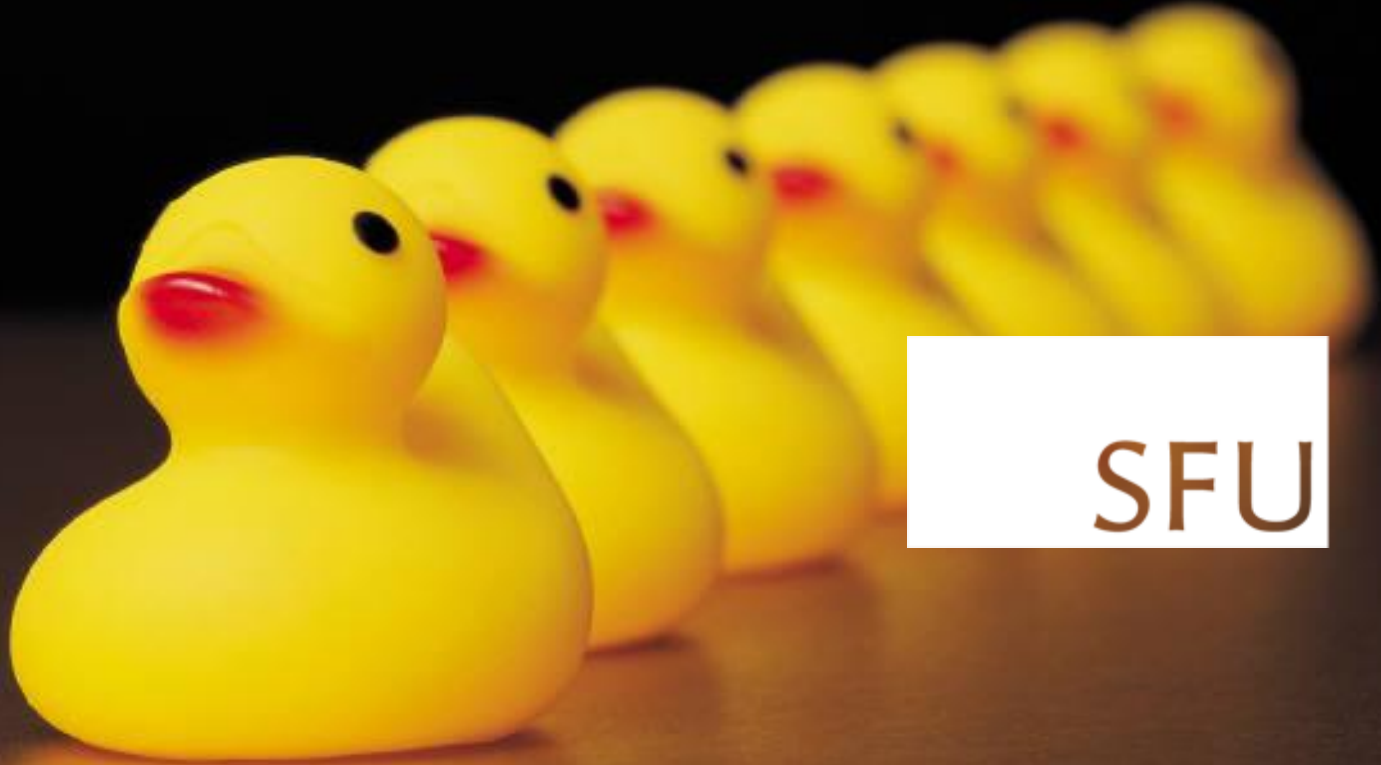
Future Roles: Room for Improvement

- Strengths
 - > General
 - > Specific
- Link to risk management and treatment
- Theory → formulation

Implications for Assessment

- ◉ Moderate-large effect sizes
- ◉ Presence / relevance of psychosis should be determined in every risk assessment
- ◉ No presumption it is always important
- ◉ Compare a given person's risk state compared to their non-psychotic state
- ◉ “Standard” risk factors must be evaluated
- ◉ Develop an individual theory of violence, and apply the appropriate interventions

THANK YOU



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