

“Actuarial” Assessment
 A Standard of Practice
 or
 The Big Bamboozala?
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Razzle Dazzle

<p><i>Give them the old razzle dazzle Razzle dazzle them Give them an act with lots of flash in it And the reaction will be passionate Give them the old hocus pocus Bead and feather them How can they see with sequins in their eyes?</i></p>	<p><i>Give them the old film flam flummox Fool and fracture them How can they hear the truth above the roar? Throw them a fake and a finagle They'll never know you're just a bagel Razzle dazzle them And they'll beg you for more</i></p>
<p><i>What if your hinges all are rusting? What if in fact you're just disgusting? Razzle dazzle them And they'll never catch wise Give them the old razzle dazzle Razzle dazzle them Give them a show that's so splendiferous Row after row will crow vociferous</i></p>	<p><i>Give them the old double whammy Daze and dizzy them Back since the days of old Methuselah Everyone loves the big bamboozala</i></p> <p>From the Motion Picture: <i>Chicago</i> (2002) Music by <i>John Kander</i> Lyrics by <i>Fred Ebb</i></p>

Introduction

- A look at the historical and conceptual underpinnings of risk assessment and prediction of future events.
- An examination/critique of “actuarial” risk assessment in forensic mental health.

Introduction

- A talk about the concept of risk assessment and the place of actuarial risk assessment in forensic mental health practice.
- More a presentation of what to think about rather than what to do.

Introduction

- Material from source articles and cases has been summarized and paraphrased in order to simplify, clarify, and adjust to constraints of PowerPoint formatting .
- The ideas presented are mine and those of various writers in the fields of sociology, mental health, and law cited in this presentation.

Background

- Ernest W. Burgess (1928): "Predictability is feasible."
- Burgess, University of Chicago sociologist studied 3,000 Illinois parolees in the early 1920s.

Background

- Constructed a 21-factor parole-prediction instrument based on group recidivism rates.
- Ferris F. Laune, a PhD student of Burgess, hired as an “actuary” by Illinois State Penitentiary at Joliet.

Background

- Laune introduced “actuarial methods” into criminal law.
- Prepared reports (*prognasios*) for the parole board regarding the likelihood of parole success.
- The prognasio was based on the inmate’s records and “Burgess test” results.

Background

- Barbara D. Underwood (1979). *Law and the Crystal Ball: Predicting Behavior with Statistical Inference and Individualized Judgment*. Yale Law Review.

Background

- The decision to predict discussion focused on accuracy and legitimacy.
- A continuum of legitimacy based considering instrument accuracy and application context?
- When a person's liberty is at risk, the highest standard of accuracy is called for.

Underwood (1979)

Background

- Richard Rodgers (2000). *The Uncritical Acceptance of Risk Assessment in Forensic Practice. Law and Human Behavior.*
- Offered to temper "unbridled enthusiasm" by articulating "perils and pitfalls" of "uncritical acceptance of risk assessment."

Background

- Not intended as a "wholesale indictment."
- *July 1, 1996 issue of American Psychologist – leading forensic experts, the positive aspects of risk assessment, "substantially overlooked any critical analysis of risks common to risk assessment."*

Rogers (2000)

Background

- In "Risky Consequences of Risk Assessment," Rogers looked at:
 - ✓ Issues of professional ethics.
 - ✓ The "floor effect" often found in clinical and forensic measures.

Rogers (2000)

Background

- In *People v. Ward* (1999) 71 Cal.App.4th 368, in part, the court considered:
 - ✓ The admissibility of the testimony of psychiatrists and psychologists.
 - ✓ The "clinical model" versus the "actuarial model."

People v. Ward (1999)

Background

- Context: The Sexually Violent Predators (SVP) Act.
- Defense expert asserted the "actuarial model" more accurate than the "clinical model."
- On appeal, the defense challenged the admissibility of the testimony of psychiatrists and psychologists.

People v. Ward (1999)

Background

- Ruling: Expert psychiatric and psychological testimony is **not scientific evidence subject to Kelly-Frye.**

People v. Ward (1999)

Background

- Court rejected the criticism of (experts using) the “clinical model.”
- “Whether they used clinical or actuarial models . . . are not reasons to exclude their testimony.”

People v. Ward (1999)

Traditional Approaches to Prediction

	Handicapping/Betting	Actuarial Science/ Underwriting
Historical Roots	Horseracing, Baseball, etc.	Insurance, Pension Plans
Focus	Individuals	Risk Groups
Reference Group Data	Informs	Controls
Primary Data Type	Dynamic	Static
Premise	Individual's Past Performance Predicts Individual's Future Performance	Reference Group Performance Predicts Future Risk Group's Performance
Data Base	Individual's Performance	Reference Group's Performance
Task	Predicting An Individual's Future Performance	Predicting A Risk Group's Future Performance
Ultimate Goal	Best Choice, Best Hire, Best Bet, A Winner	Profit after Claim Payments by Accurate Distribution of Risk Costs (Premiums).

**The Common Features
Actuarial Risk Assessment Schemes**

- Historical reference **group** or **groups**.
- A dichotomous dependent outcome variable — violence or re-offence.

**The Common Features
Actuarial Risk Assessment Schemes**

- Empirical evidence for the rate at which the the outcome variable occurred or did not occur for the **group** and **sub-groups** by load of independent variables.
- Accepted statistical methods are used to analyze the research data.

**The Common Features
Actuarial Risk Assessment Schemes**

- Results can reasonably be used to predict the rate the studied phenomenon will occur in future similarly constituted **groups** and **sub-groups**.

**The Common Features
Actuarial Risk Assessment Schemes**

- As in the reference group, **outcomes for individuals** in prediction groups will be dichotomous—all or nothing phenomena.

Criterion C – WIC Section 6600 (a)

1. Is the person likely to engage in sexually violent criminal behavior if released without conditions?
WIC Section 6600 (a) (1), *People v. Ghilotti*

2. Is the person's future sexually violent criminal behavior likely to be predatory?
WIC Section 6600 (e), *People v. Hurtado*

3. What is the weight of factors relevant to the possibility of voluntary (outpatient) treatment.
WIC Section 6601 (d), *People v. Ghilotti*

Criterion C – From Ghilotti to Actuaryland

The Question:

"Does the subject's diagnosed mental disorder make the subject a danger to the health and safety of others in that it is **likely** that he or she will engage in sexually violent criminal behavior."

The Clarification:

"The person is **likely** to reoffend if . . . the person presents a substantial danger, that is, **a serious and well-founded risk**, that he or she will commit such crimes if free in the community."

People v. Superior Court(Ghilotti) (2002),
27 Cal.App.4th 888

Criterion C – From Ghilotti to Actuaryland

Ghilotti — Parsed

What is the meaning of the phrase upon which evaluators are to opine, i.e., whether “the person has a diagnosed mental disorder so that he or she is likely to engage in acts of sexual violence . . .?”

People v. Superior Court(Ghilotti) (2002), 27 Cal.App.4th 888

Horizontal lines for notes

Criterion C – From Ghilotti to Actuaryland

Ghilotti — Parsed

(250 lines – 28 Paragraphs)

Total References:	34
Case Law:	19
Statute/Code:	7
Dictionary (lay):	4
Dictionary (law):	2
Thesaurus (law):	2
Psych. Literature:	0
Actuary/Statistics:	0

Horizontal lines for notes

Criterion C – From Ghilotti to Actuaryland

Ghilotti — Parsed

Reference to mathematics?

The word “likely” as used in the statute, also must be construed in light of the “difficulties inherent in predicting human behavior,” particularly in mathematical terms. This is particularly so with respect to the requirements of Section 6601, which represents only the initial screening stage of the SVPA process.

People v. Superior Court(Ghilotti) (2002), 27 Cal.App.4th 888

Horizontal lines for notes

Criterion C – From Ghilotti to Actuaryland

The hope? Qualitative Assessment?

In response to the *Ghilotti* decision, Chief Assistant Attorney General Robert R. Anderson said, "I think it will allow evaluators to make a more reasoned assessment without being misguided by some type of belief that a mathematical evaluation is required."

Los Angeles Times, April 26, 2002.

Ghilotti — The Reality

"Don't ask, don't tell."

An Exception that Proves the Rule.

"[Doctor] explained that to qualify as an SVP, and offender must pose a serious and well-founded risk of reoffending. In [doctor's] opinion, this risk need not be 51 percent or higher, but rather just a good chance or around 30 percent."

People v. Seja, Cal. Court of Appeal, 5th Dist., July 2011, Unpublished

The Road to Actuaryland

A Perfect Storm?

1. Media-public outcry.
2. Political/legislative response.
3. Ideal target – pariahs.
4. A methodology in waiting.
5. Psychologist become tool makers.
6. A marketing breakthrough.
7. A new industry.

PRINCIPLES OF ACTUARIAL SCIENCE

Principle 4.1 – Risk Classification

For a group of risks associated with a given actuarial risk, it is possible to identify characteristics of the risks and to establish a set of classes based on these characteristics so that:

- a. each risk is assigned to one and only one class; and
- b. probabilities of occurrence . . . May be associated with each class in a way that results in an actuarial model which, for some degree of accuracy, is:
 - 1. valid relative to observed results for each class or group of classes having sufficient available data, and
 - 2. potentially valid for every class.

In order to do what? They do what?

"In order to assess the inmate's risk of sexual reoffense he was scored on two actuarial instruments that provide general base rates of sexual reoffense for offenders similar to the inmate."

"In summary, Mr. X scored in the high range of risk of sexual re-offense on the Static-99R and in the moderate high range on the Static-2002R. Both these instruments predict whether an offender will be charged with a new sexual offense."

No. 00118

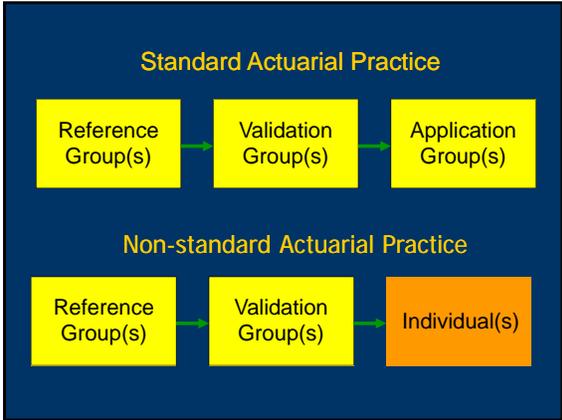
In order to do what? They do what?

"In order to assess the inmate's risk of sexual reoffense he was scored on two actuarial instruments that provide general base rates of sexual reoffense for offenders similar to the inmate."

"Mr. X was scored on the Static-99R . . . Mr. X received a total score of 7, which places him in the High Risk Category for being charged or convicted of another sexual offense."

"In summary, Mr. X scored in the high range of risk of sexual re-offense on the Static-99R and in the moderate high range on the Static-2002R. Both these instruments predict whether an offender will be charged with a new sexual offense."

No. 00118



- What Should We Call It?**
1. Actuarial Risk Assessment?
 2. Pseudo Actuarial Risk Assessment?
 3. Actuarial Risk Assessment Lite?
 4. Non-standard Actuarial Risk Assessment?
 5. "So called" Actuarial Risk Assessment?
 6. Actuarial Risk Assessment—Up to a Point?
 7. Actuarial-like Risk Assessment?
 8. Actuarioid Risk Assessment?
 9. Unprincipled Actuarial Risk Assessment?
 10. Actuarial Risk Assessment (NOS)?

Prognostic Premises

The best predictor of future behavior is past behavior. (Generic)

The best predictor of an individual's future behavior is that individual's past behavior. (Scouting, Handicapping, Clinical)

The best predictor of future group behavior is past group behavior. (Actuarial Science)

The best predictor of an individual's future behavior is "his" group's past behavior. (Actuarial Risk Assessment-NOS)

PRINCIPLES OF ACTUARIAL SCIENCE

Axioms

- 1. The outcome expectation (percentage/ratio) for a given actuary risk group provides no actuarial-based information about the outcome expectation for any individual in the risk group.
 - a. Characterizing the outcome expectation of the group as the outcome expectation for any or all the individuals in the risk group is not supported by the principles of actuarial science.

PRINCIPLES OF ACTUARIAL SCIENCE

Axioms

- b. Likewise, using the group outcome expectation (percentage/ratio) as the "baseline" or jumping off point for analysis or characterization of the outcome expectation for any or all the individuals in the risk group is not supported by the principles of actuarial science.
- c. While there may be credible methods of assessing and characterizing an individual's risk or outcome expectation, actuary (group-based) risk assessment is not one of those methods.

PRINCIPLES OF ACTUARIAL SCIENCE

Axioms

- 2. The value of actuarial risk assessment can only be achieved in applications that:
 - a. Maintain the integrity of the risk group (all in, no exceptions).
 - b. Assign the same consequence (premium/cost/burden) to all members of the risk group.
- 3. Over-riding underwriting criteria on a case by case basis undermines the core empirical and mathematical foundations for actuarial prediction.

Actuarial Means Group

“Winwood Reade is good upon the subject,” said Holmes. “He remarks that, while the individual man is an insoluble puzzle, in the aggregate he becomes a mathematical certainty.”

Arthur Conan Doyle,
The Sign of the Four (1890)

Actuarial Means Group

- An individual is not a group.
- Though a group is comprised of individuals, a group is not an individual.
- The percentage of individuals in a group who engage in a particular behavior is the group’s rate for that behavior not a rate for the individuals in the group.

Actuarial Means Group

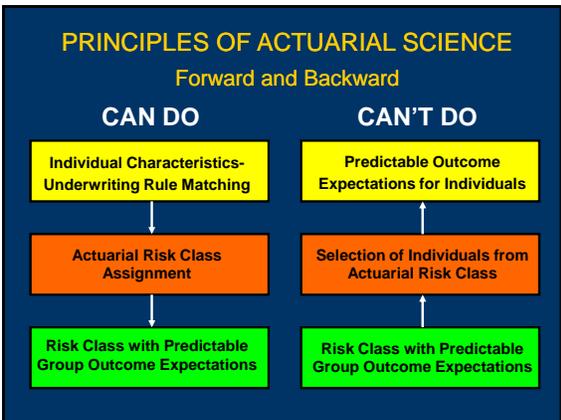
1. Without reference to a group there is no way to develop or validate a actuarial tool.
2. Without reference to a group there is no way to prove accuracy of an actuarial tool in practice.
3. Accuracy of an actuarial tool can not be established in the context of a single case or a single event.
4. A Nobel Prize awaits the person who produces an actuarial instrument validated with an “n” of one.

PRINCIPLES OF ACTUARIAL SCIENCE
Forward and Backward

1. In actuarial risk assessment the **individual is assessed for assignment** to an actuarial risk class.
 - a. A limited number of known attributes of the individual is matched against attributes set out as underwriting rules.
 - b. The individual is placed in a risk class comprised of individuals whose individual attributes match the same underwriting rules.
 - c. **In any risk class, individuals who will experience and those who will not experience the event in question have the same actuarial characteristics.**

PRINCIPLES OF ACTUARIAL SCIENCE
Forward and Backward

2. For the risk class, one can predict the number of individuals, but not which individuals, in the group who will and who will not experience the event of interest.
3. Actuarial risk assessment provides no basis for doing to do the reverse, i.e., using predicted risk class outcomes to predict the outcome expectations for individual's in the risk class.
4. Actuarial Science Summarized:
 - a. **Predictable actuarial risk classes** of individuals with shared underwriting characteristics - **Doable**
 - b. **Predictable individual risk** from actuarial risk class affiliation – **Not Doable**



Actuarial Risk Groups — SVP Findings

1. All the individuals within each Risk Group have equivalent actuarial characteristics.
2. In every Risk Group there are individuals that are likely to reoffend.
3. In every Risk Group there are individuals who are not likely to reoffend.
4. Risk Group affiliation does not establish an individual's likelihood of reoffending.

Actuarial Risk Group — SVP Findings

Group Affiliation	Individual Identity	Necessary SVP Finding
High Risk Group	Likely to Reoffend*	Positive
	Not Likely to Reoffend*	Negative
Medium Risk Group	Likely to Reoffend*	Positive
	Not Likely to Reoffend*	Negative
Low Risk Group	Likely to Reoffend*	Positive
	Not Likely to Reoffend*	Negative

*Serious and well-founded risk.

Miscommunication

11.01 Accuracy, Fairness, and Avoidance of Deception

Forensic practitioners make reasonable efforts to ensure that the products of their services, as well as their own public statements and professional reports and testimony, are communicated in ways that promote understanding and avoid deception.

Specialty Guidelines for Forensic Psychology, APA Council of Representatives, Adopted August 3, 2011

Miscommunication

A scientific paper . . . can hide trivialities or irrelevance with equations and jargon . . . exposing an idea in [plain language] allows it to be judged by the public.

*The Black Swan (2007)
Nassim Nicholas Taleb*

Miscommunication

11.01 Accuracy, Fairness, and Avoidance of Deception

When providing reports and other sworn statements or testimony in any form, forensic practitioners strive to present their conclusions, evidence, opinions, or other professional products in a fair manner. **Forensic practitioners do not, by either commission or omission, participate in misrepresentation of their evidence . . .**

*Specialty Guidelines for Forensic Psychology,
APA Council of Representatives,
Adopted August 3, 2011*

Miscommunication

On prediction of future events:

“Upon no subject has it been so easy to deceive the world as upon this.”

McKay, Charles, Extraordinary Popular Delusions and the Madness of Crowds,

Que sera, sera.
Whatever will be, will be.
The future's not ours to see.
Que sera, sera.
What will be, will be.

Words by Ray Evans and music by Jay Livingston (1956)

Risk Miscommunication

1. In communicating risk, language is critical.
2. “Miscommunication of risk is often the rule rather than the exception and can be difficult to detect . . .”
3. “Statements about the probabilities of single events—such as ‘you have a 30 to 50 percent chance of developing a sexual problem’ are fertile ground for miscommunication.”

Gigerenzer, G., Calculated Risks-How to Know When Numbers Deceive You (2002)

Risk Miscommunication

4. Communicating risk in percent often leaves too much to the imagination.
5. “A 30 percent chance of rain tomorrow” may be understood as:
 - a. It will rain 30 percent of the time?
 - b. It will rain in 30 percent of the area?
 - c. **It will rain on 30 percent of the days that are like tomorrow?**

Gigerenzer, G., Calculated Risks-How to Know When Numbers Deceive You (2002)

Risk Miscommunication

- 6. Communicating risk in percent is ambiguous and leads to misunderstanding.
- 7. Opportunity for misunderstanding is reduced when risk statements use whole numbers and identify what the numbers refer to.
- 8. For example, *“Mr. X is affiliated with a risk class in which 20 out of 100 (20 percent) individuals can be expected to reoffend in 5 years.”*

Risk Miscommunication

- 9. Time-limited **single event (single case)** risk predictions of 0% or 100% can be disproved.
 - a. If in the time limit the event occurs, the 0% prediction is disproved?
 - b. If in the time limit the event does not occur, the 100% prediction is disproved?

Risk Miscommunication

- 10. Time-limited **single event (single case)** risk predictions greater than 0% or less than 100% cannot be proved or disproved.
 - a. If in the time limit the event occurs, this is consistent with any predicted risk >0% or <100%.
 - b. If in the time limit the event does not occur, this is consistent with any predicted risk >0% or <100%.
 - c. Either event outcome is consistent with any predicted risk >0% or <100%.

How Percents Deceive

1. A fraction is a number used to express portion of a whole. For example:
 - 1 of 4 parts of a inch, i.e., $\frac{1}{4}$ inch.
 - 1 of 2 parts of a pizza, i.e., $\frac{1}{2}$ of a pizza.
 - 3 people of a group 4, i.e., $\frac{3}{4}$ of the people.
2. A fraction is composed of a numerator and a denominator.
3. The numerator is the part of fraction above the line that denotes a certain number of equal portions of the whole.

How Percents Deceive

4. The denominator is the part of fraction below the line that denotes the number of equal portions that comprise the whole.

FRACTION: $\frac{\text{NUMERATOR}}{\text{DENOMINATOR}}$

5. A percent is a fraction that has been decimalized and multiplied by 100.

$$\frac{1}{5} \begin{matrix} \text{(numerator)} \\ \text{(denominator)} \end{matrix} = 0.20 \times 100 = 20\%$$

Numerator and denominator "disappear."

How Percents Deceive

4. Without disclosure of the numerator, denominator and their source, risk statements in percent are, at best, ambiguous and, at worst, meaningless.
5. Basis for a "20 percent" risk of reoffense?
 - 20 people out of 100 people reoffended?
 - 20 offenses out of 100 chances to offend?
 - Offenses on 20 out of 100 days at risk?

What is the numerator based on?

What is the denominator based on?

RISK (R_p) and RISK (R_i)

1. Population-derived Risk
 - a. Actuarial (group) risk.
 - b. Group performance, e.g., reoffence.
 - c. The formula: $\frac{N_f \text{ (Individuals Failed)}}{N_e \text{ (Individuals Exposed)}} = R_p$
2. Frequency-derived Risk
 - a. Individual risk.
 - b. Individual performance, e.g., batting average.
 - c. The formula: $\frac{T_f \text{ (Times Success)}}{T_e \text{ (Times Exposed)}} = R_i$

Equivalency-Comparability Illusion

Population-derived Actuarial Risk (Group)

$$R_p = \frac{20 \text{ (people reoffend)}}{100 \text{ (people at risk)}} = 20\% \text{ group risk}$$

Population-derived Actuarial Risk (Individual)?

$$20\% \text{ individual risk} = \frac{20 \text{ what?}}{100 \text{ what?}} = \frac{\text{Numerator?}}{\text{Denominator?}}$$

$$20\% \text{ individual risk} = \frac{20 \text{ (people reoffend)}}{100 \text{ (people at risk)}} \quad ?$$

A clone risk?

Equivalency-Comparability Illusion

An Individual's Population-based Actuarial Risk?

A Clone Risk?

The reoffense risk of an individual expressed as the percent of individuals who will reoffend from a group comprised of the individual and 99 of his clones.

$$20\% \text{ Clone Risk} = \frac{20 \text{ (individuals reoffend)}}{\text{Individual} + 99 \text{ clones}}$$

Risk Communication

“Out of a group of 100 persons with actuarial characteristics similar X , 20 can be expected to reoffend in 5 years.”
(Population-based risk for group)

“Out of 100 times at bat, baseball player X can be expected to get on base 20 times.” (Frequency-based risk for an individual)

Risk Miscommunication

- Active—Falsehood.
- Active—Inadequate disclosure.
 - ✓ Not in language of the public.
 - ✓ In language of obfuscation.
 - ✓ Stating pros but not cons.
 - ✓ Imbalance in rhetoric and format.

Risk Miscommunication

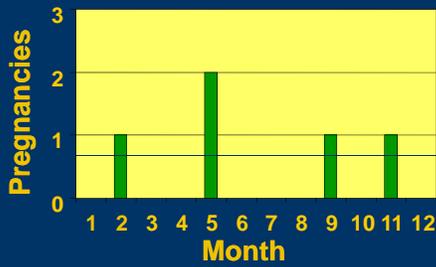
- Passive—*Caveat emptor*.
 - ✓ Not correcting misunderstandings.
 - ✓ Not responding preemptively to foreseeable misunderstanding (Commonly Accepted Misconceptions).
 - ✓ Giving the consumer what he, she, or it asks for.

Risk Miscommunication?

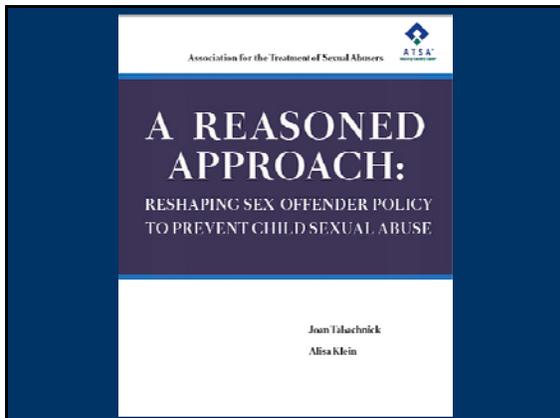
“Mr. X scored a [number] on this risk assessment instrument. Individuals with these characteristics, on average, sexually reoffend at [number]% over five years and at [number]% over ten years. The rate for any violent recidivism (including sexual) for individuals with these characteristics is”

Harris, Phenix, Hanson, & Thorton (2003)

12 Month Drug Trial – NoPreg[®]



Number of Subjects: 50
Total Pregnancies at 12 Months: 5
Pregnancy Rate: 10.0 %



Risk Miscommunication
Understanding Risk Assessment

Over the past 15 years, research studies have identified different personal characteristics and factors most strongly related to adult males who re-offend sexually.

"So far, so good."

Tabachnick and Klein, *A Reasoned Approach*, ATSA, 2011



Risk Miscommunication
Understanding Risk Assessment

With an increased understanding of these characteristics and factors, researchers have developed evidence-based actuarial risk assessment instruments (ARAIs) for adults.

"OK, keep going."

Tabachnick and Klein, *A Reasoned Approach*, ATSA, 2011



Risk Miscommunication
Understanding Risk Assessment

These tools estimate the likelihood of sexual re-offense [for groups] based on a combination of risk factors associated with different risk.

"Hey, you left out the group part."

Tabachnick and Klein, *A Reasoned Approach*, ATSA, 2011



Risk Miscommunication

Understanding Risk Assessment

Although these risk assessment tools do not predict whether a specific individual will commit a new sexual offense . . .

"Well, you got that part right."

Tabachnick and Klein, *A Reasoned Approach*, ATSA, 2011



Risk Miscommunication

Understanding Risk Assessment

. . . they are currently the most reliable method of identifying [groups of] adults with particular characteristic that may lead to a higher risk of being re-arrested or reconvicted . . .

"Hey, you left out that group part again."

Tabachnick and Klein, *A Reasoned Approach*, ATSA, 2011



Risk Miscommunication

For Example

In order to assess [subject's] risk of sexual re-offense he was scored on five actuarial instruments that provide general base rates of sexual re-offense for [groups of] sex offenders.

"Look, this guy also left out that group part."

Case No.: 062711-1



Risk Miscommunication

For Example

These instruments include the Static-99R, Static-2002R, MnSOST-R, SORAG and the Structured SRA-FV. All five instruments have been subject to validation studies that have established their usefulness in predicting [group] sexual re-offense.

"There seems to be a pattern here."



Case No.: 062711-1

Risk Miscommunication

For Example

[Subject] scored in the Moderate-High range of risk of sexual re-offense on the Static-99R, Static-2002R, MnSOST-R, SORAG, and the SRA-FV. Each of these instruments predicts whether an offender will be charged with a new sexual offense.

"Wrong! They predict how many out of a group will be charged with a new offense."



Case No.: 062711-1

Risk Miscommunication

Comparing the Uncomparable

[Subject] scored a 3 on the Static-99R. [Groups of] offenders with the same score . . . have been found to sexually reoffend at a rate of 11.9 percent in five years . . .

"OK, about 12 out of a group of 100 will reoffend. So what's the subject's risk? 12 out of 100 what's?"



Case No.: 062711-2

Risk Miscommunication
Comparing the Uncomparable

These instruments *do not predict* whether or not an individual will reoffend. Rather, they provide a comparison of the individual to groups of offenders with known reoffense rates to *estimate risk*.

*"Right, don't predict individual outcome."
 Comparison to what?
 Clone Risk?*

Case No.: 062711-3 

Risk Miscommunication
What the Courts Hear

- "Three psychologists reported that, according to Whitlock's score on the STATIC 99 test, there was a 52% *likelihood of his re-offending* within the next 15 years."
People v. Whitlock (2003)
- "Dr. M and Dr. F calculated a score of 4 on the RRASOR scale applied to appellant, which . . . meant that the *risk that he would engage in sexually violent behavior* over the next 10 years was 48.6%."
People v. Poe (1999)
- "Defendant's score of 4 on the RRASOR, a clinical tool for evaluating the probability of a sexual offender's reoffending, indicated a 32.7 percent *likelihood that the defendant would commit another violent sexual offense* with five years"
People v. Roberge (2003)

Risk Miscommunication
What the Courts Hear

- "After the Static-99 was updated, *defendant was estimated to have between a 17.4 and 32.7 percent chance* of being charged of convicted of a new sexual offense over the five years after his release"
People v. Seja (2011)

Risk Miscommunication
 What the Courts Hear

“The Static-99 is an actuarial instrument that allows and evaluator to place sexual offenders in different risk categories based on historical (static) factors such as age, marital status, the number of prior offenses, the relationship of the offender to the victims and the gender of the victims.”

“So far, so good.”

People v. Therrian (2003)
113 Cal App.4th 609



Risk Miscommunication
 What the Courts Hear

“After identifying the particular characteristics of the offender, the Static-99 test assigns a numeric score to them.”

“OK, keep going.”

People v. Therrian (2003)
113 Cal App.4th 609



Risk Miscommunication
 What the Courts Hear

“The total score of the test is a percentage chance of the defendant’s likelihood of being convicted for a future sexual offense.”

*“Whoa! Percent of what?
 Numerator? Denominator?
 Clone Risk?”*

People v. Therrian (2003)
113 Cal App.4th 609



Risk Miscommunication
 What the Courts Hear

"In this evaluation the process of determining the likelihood of defendant reoffending **requires adjusting the actuarial risk assessment.**"

"The baseline fallacy. The false surrogate. It just keeps getting worse."

People v. Therrian (2003)
 113 Cal App.4th 609





**NEXT
 PROFESSOR
 MAGIK WILL
 PERFORM TWO
 ILLUSIONS AT
 ONCE.
 EQUIVALENCY
 AND
 COMPARABILITY**

The "Baseline" Fallacy

1. A strategy that both uses and enhances the **illusion of equivalency and comparability.**
2. With the false assumption (illusion) that the individual's risk is equivalent to the risk of his or her assigned risk class, the outcome expectation of the risk class is used as a surrogate for individual risk and "adjusted" upward or downward based on alternate sample norms, "dynamic factors," "clinical judgment," and/or evaluator idiosyncrasy. **"Compounding the Problem."**

The “Baseline” Fallacy

3. A strategy with compound flaws:
 - a. The actuarial (class) risk percent is a false surrogate for the risk of any individual.
 - b. “Adjusting” the false surrogate risk in an effort to determine an individual’s risk is akin to the practice of voodoo.
 - c. Departure from the validated underwriting and scoring rules of a risk assessment system results in an *ad hoc* assessment system of unknown validity.

The “Baseline” Fallacy

3. A strategy with compound flaws:
 - d. Offers a “patina” of actuarial, numerical precision to assessments that are significantly influenced by “clinical judgment” and evaluator idiosyncrasy. “Sailing under false colors.”
 - e. Inherent anchoring and floor effect bias.

Risk Miscommunication

- In reports, evaluators typically state that determining risk of reoffense is different from predicting reoffense and that they are doing the former. (A distinction without a difference?)
- What is apparently not effectively communicated is the fact that actuarially determined risk is a prediction about the proportional expected outcome for a risk class, not a prediction about any individual in the risk class. (A distinction with a difference.)

The Precision Fallacy

- Actuarial prediction is more precise, accurate, or reliable than clinical prediction.

"Whoa! This is way too ambiguous."



- Actuarial prediction of **group outcomes** are more precise, accurate, or reliable than clinical predictions of **group outcomes**.

"OK. That's right."



The Precision Fallacy

- Actuarial prediction of **individual outcomes** are more precise, accurate, or reliable than clinical predictions of **individual outcomes**.

"Actuarial prediction of an individual outcome? That's an oxymoron. Next."



The Precision Fallacy

- Actuarial prediction of **group outcomes** are more precise, accurate, or reliable than clinical predictions of **individual outcomes**.

"Clone risk? What's the numerator. What's the denominator. Remember— a percent is a fraction."



- The precision, accuracy, or reliability of a tool are irrelevant parameters when the tool is the **wrong tool for the job**.

The Precision Fallacy

- 2. The precision, accuracy, and reliability debate side steps (obfuscates) foundational questions:
 - The basic conceptual error.
 - The inherent structural defect in the “instruments.”
- 3. Mental health professional are rarely called on to assess group risks.
- 4. Exception: *People v. McKee* (2010) 47 Cal.4th 1172, on remand to San Diego Superior Ct. (2011).

People v. Richard McKee

- San Diego Superior Court opinion. (April 2011)
- The issue: Equal Protection. (Group risk)
- Judge Michael D. Wellington “gets it.”

[The Static-99] score is then correlated with the scores of a larger population of sexual offenders whose re-offense record is known to determine what percentage of offenders with a similar score have reoffended within a particular time period . . . The score is not intended to show the specific likelihood of sexual recidivism for a particular individual.

U.S. v. Walter Wooden

- U.S District Court for Eastern District of North Carolina, Western Division order filed August 31, 2011.
- The issue: Sexual Dangerous Predator as defined in the Adam Walsh Act.
- *All three experts in this case conducted a risk analysis based on empirical tools and actuarial instruments to evaluate, quantify, and support their dangerousness determination.*

U.S. v. Walter Wooden

- All experts agree that no psychological tests or actuarial instrument have been developed that predict with certainty an individual's risk of future sexual offending behavior.
- The actuarial instruments (Static-99R, Static 2002R) provide only group prediction rates on risk of re-offending. These instruments do not provide individual rates of re-offending.
- Does the court see a problem of "certainty" (accuracy) or a problem of unsuitability and fundamental conceptual error?

The Precision Fallacy

5. "My iPod's more precise and accurate than your table saw."
6. "My refrigerator is more precise and accurate than your lawn mower."
7. A form of "bait and switch."
 - The bait: Assessment of individuals.
 - The switch: Actuarial (group) assessment.
8. Tools that accurately and precisely provide the public with something other than what it is looking for.

Model Disclosure Statement - 1

Because actuarial measures are based on group data, instruments such as the Static-99 and Static-2002 and their progeny can only predict the percentage of people in the group who will offend.

They cannot identify which individuals in the group will be among those who do or do not re-offend.

This type of research is very valuable in discovering what factors are shared by sexual offenders, and they provide valuable tools for communities and law enforcement when trying to determine where to put resources.

Model Disclosure Statement - 1

Unfortunately, when they are presented to lay people in court, they are sometimes misunderstood as having the ability to predict individual likelihood to re-offend. There are many reasons why they cannot

. . . While the offender's history that contributes to each [risk] factor is definitely relevant to a determination of risk, I would agree with the opinion that the actuarial assessment instruments are neither necessary nor sufficient to establish the conditions for commitment under WIC 6600.

Model Disclosure Statement - 2

The risk percent associated with any individual derived from a score determined by an actuarial risk assessment tool represents the number of individuals out of a group of 100 individuals with the same risk assessment tool score who will experience the event or exhibit the behavior in question. *Translated from the Latin—percent literally means "per one hundred."*

For example, if a risk assessment tool score of 5 is associated with a risk of 25%, this means that it is reasonable to expect that, in a group of 100 individuals with a score of 5, twenty-five will experience the event or exhibit the behavior in question.

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Model Disclosure Statement - 2

For every risk percent for an event or behavior to occur there is a reciprocal risk percent that the event or behavior will not occur. The reciprocal risk is calculated by subtracting the risk percent from 100.

For example, if a risk assessment tool score of 5 is associated with a risk of 25%, the reciprocal risk that the experience or event will not occur is 75% ($100 - 25 = 75$). This means that it is reasonable to expect that, in a group of 100 individuals with a score of 5, seventy-five will not experience the event or exhibit the behavior in question.

Model Disclosure Statement - 2

In summary, actuarial (group-derived) risk assessment can tell us how many individuals out of a group of 100 individuals with the same assigned risk we can reasonably expect to experience an event or exhibit a behavior and how many individuals out of a group of 100 individuals with the same assigned risk will not experience that event or exhibit that behavior.

Actuarial risk assessment does not and cannot tell us which of the two outcome groups associated with each level of risk any individual will fall within.

Model Disclosure Statement - 3

A risk classification system uses an individual's underwriting score to assign that individual to (affiliate him or her with) a hypothetical population of sexual offenders with similar underwriting scores. Based on known reoffense rates of past similarly comprised groups, one can reliably predict the percentage of people who will reoffend in thus comprised future groups.

Neither an individual's underwriting score or risk group affiliation (assignment) tell us the specific likelihood of sexual recidivism for that particular individual.

Cf: Judge Wellington, *People v. McKee*
Cf: Actuarial Principle 4.1

Criterion C – From Ghilotti to Actuaryland

Actuarial *Über Alles*?

1. Both doctors had extensive experience in psychological and psychiatric evaluation.
2. Their expertise in diagnosis and treatment was closely related to their opinions.
3. Whether they used clinical or actuarial models . . . are not reasons to exclude their testimony.
4. The expert were not restricted to one methodology or another.

People v. Ward (1999)

Criterion C – From Ghilotti to Actuaryland

Evaluations without “Actuarial” Risk Assessment?

- ✓ 95 total evaluations.
- ✓ 46 different subjects.
- ✓ 23 different evaluators.

California/SOCP/DMH/April2011.

**Actuarial Risk Assessment (NOS)
Unintended Consequences**

Risk assessments are invariably about individuals. Incidence based on the performance of groups can inform the individual assessment, but they also have the capacity to obfuscate a decision . . .

Webster, Bloom, and Augimeri (2011)
www.psychiatrytimes.com

Actuarial Risk Assessment (NOS)

Unintended Consequences

1. Disuse atrophy of analytic/ thinking skills?
2. Blindness, myopia or tunnel vision?
3. Institutionalized prejudice/bias?
4. Anchoring? Floor effect?
5. Parroting? Plagiarizing?
6. Avoidance of accountability?

Actuarial Risk Assessment (NOS)

Anchoring

1. Tversky and Kahneman; *Science*, 1974
2. Anchoring occurred with random and unrelated numbers.
3. "Super-anchoring" with "meaningful" numbers?

We use reference points . . . and start building beliefs around them because less mental effort is need to compare an idea to a reference point that to evaluate it in the absolute.

Taleb, N., *The Black Swan* (2010)

"Actuarial" Paralysis of Analysis

In 1994, [redacted] engaged in sadistic acts by drugging women and then videotaping them while he engaged in deviant acts. He placed a hood over their heads, bound and gagged some of them, and used toxic substances to keep them unconscious. [redacted] It appears that some of the women would have had consensual sexual intercourse with him, and possibly even did so before these offenses, suggesting that it was their incapacitation and domination which he found to be more arousing. With this history, it is not surprising that he is [redacted] diagnosed with sexual sadism.

Despite that troubling diagnosis, a risk assessment does not reveal a high level of dangerousness. As a first-time sex offender with little criminal history, [redacted] simply does not pose a substantial and well-founded level of dangerousness that would justify a civil commitment.

Possible translation: ~~My mother~~ The "actuarial" risk assessment wouldn't let me do it, i.e., say he is a serious and well found risk to sexually reoffend.

No. 00107

“Actuarial” Paralysis of Analysis

“We are satisfied that no reasonable juror would mistake . . . use of the Static-99 test as a source of infallible truth on the issue of defendant’s reoffending.

“So what about the reasonable evaluator?”

People v. Therrian (2003)
113 Cal App.4th 609



“Actuarial” Paralysis of Analysis

In this case, an overall review of the Static-99R, Static-2002R and external dynamic factors places Mr. [redacted] at Low to Low-Moderate risk for sexual reoffense. Therefore, I opine that Mr. [redacted] does not meet the likely standard as specified within WIC 6600.

- Translation?: “Thinking’s for sissies – I got actuarials.”

having a current interest in sexual sadism. Given that Mr. [redacted] has a life-long interest in sexual sadism, this evaluator could envision the possibility of bumping the risk for future sexual offense to the moderate level given the extenuating circumstances, but could not support raising the risk to the moderate-high or high level. The actuarial data in conjunction with the dynamic risk factors do not support that Mr. [redacted] is a substantial danger or serious and well-founded risk for a future sexual offense.

- A mathematical assessment of the assessment tools rather than a psychological assessment of the person.
- ~~My mother~~ The “actuarial” risk assessment wouldn’t let me do it, i.e., say he is a serious and well found risk to sexually reoffend.

No. 00108

Assessing of the Assessment Tool

“In my SVP report of 03/05/08 I opinion [sic] that he was a serious and well-founded risk. Since that time there has been a revised version of the Static-99 (Static-99R). This updated instrument better accounts for the effects of age on sexual recidivism. Thus, Mr. Wilson’s score on the Static-99R dropped one point to the Low-Moderate range of risk. The Static –99R’s recidivism rates are lower than in the Static-99. This reflects the fact that sexual recidivism has decreased in more contemporary samples. These factors have led me to conclude that he is not a serious and well-founded risk to commit sexually violent behavior.”

“And, how has the person changed?”

No. 00119



Lost in Actuaryland

1. Alice cannot distinguish between Actuaryland and the real world.
2. In Actuaryland, two crimes are one crime.
3. In Actuaryland, a crime that precedes the last crime is not a prior crime.
4. In Actuaryland, moderate risk plus multiple dynamic factors for reoffense does not amount to a serious and well-founded risk.
5. In Actuaryland, Alice does a mathematical assessment of the assessment tools rather than a psychological assessment of the person.

No. 00109

The Answer to the Last Question

1. *Actuarial* is a good word.
 - a. For those most familiar with the word, it **denotes** a methodology which is **scientific, mathematical, and precise**.
 - b. For those less familiar with the word, through its associations with insurance and insurance advertising, it connotes professional, conservative, reliable, respectable, trustworthy, solid.
 - “You’re in good hand with Allstate.”
 - Prudential—Strong as the Rock of Gibraltar

The Answer to the Last Question

1. *Actuarial* is a good word.
 - c. For those unfamiliar with the word, it is naturally attractive based on the initial phonemes it has in common with a group of strong positive words.
 - Act, action, activism, activity, activate.
 - Actual, active, actually, actively.
2. *Tools* and *Instruments* sound good too.
 - a. **Connote tangible, useful, scientific**
 - b. Reality: A set of data fields, a check list, a questionnaire, and an inventory form.

The Answer to the Last Question

3. Mission Impossible

- a. The phenomenological impossibility of objective analysis or discourse about the future.
- b. *Déjà vu* McNaughten
 - Sound policy, but . . .
 - Humanly imperceptible.
 - Objectively/scientifically unmeasurable.
- c. "Let Mikey do it." – Psychiatrist/psychologists to the rescue.

The Answer to the Last Question

3. Mission Impossible

- d. False confidence is better than no confidence at all.
- e. Like petting a cat – Everyone's BP is lowered.
 - Mental health expert.
 - The judge.
 - The attorney.
 - The jury.
- e. Now the impossible seems possible.
 - A useful, comforting fiction/illusion.
 - "We like it when you talk dirty actuary."

The Answer to the Last Question

4. Numbers-Rock-Scissors-Paper

- a. Numbers are associated with physical sciences, engineering and finance.
- b. "Numbers don't lie."
- c. Numbers sell – "99 and 44/100 % pure."
- d. Numbers imply accuracy, precision, and certainty, even when:
 - They are inaccurate, or
 - They are ambiguous, or
 - They are meaningless, or
 - They measure the wrong thing.

The Answer to the Last Question

4. Numbers-Rock-Scissors-Paper

- e. Numbers imply accuracy, precision, and certainty, even when:
 - The level of accuracy is not used, not helpful or needed.
 - The kitchen versus a pharmacy.
 - House framing versus cabinet making.
 - "Accepting lesser tolerances where appropriate lets you frame a house more quickly, efficiently and economically."

Framing a House, R. Osborn (2010).

The Answer to the Last Question

5. The joy of sects (clubs, cliques)

- a. A shared common identity.
- b. Shared belief system and values.
- c. Idolized leaders, parental figures, protectors.
 - "Karl, he's the man."
 - "He's like a rock star."
 - "He's so smart you can only understand half of what he says."
- d. Role models.
- e. A world of disciples and Mini-Mes.

Dogma is the established belief or doctrine held by a religion, or by extension by some other group or organization. It is authoritative and not to be disputed, doubted, or diverged from, by the practitioners or believers.

Heresy is a controversial or novel change to a system of beliefs, especially a religion, that conflicts with established **dogma**.

www.en.wikipedia.org

The Answer to the Last Question

6. The Andersen Phenomenon

- a. Imposing and maintaining an orthodoxy.
- b. Preemptive defense against heresy.
- c. H. C. Andersen, Denmark (1805-1875)
- d. The elements of the technique:
 - Protagonist(s) propose(s) a falsehood in self-interest.
 - People recruited to believe the falsehood are told that **only people who are incompetent or unintelligent will not believe** the falsehood.

The Answer to the Last Question

6. The Andersen Phenomenon

- d. The elements of the technique:
 - In words and gestures, the protagonist(s) continually act(s) as if the falsehood were true.
 - The protagonist(s) seek(s) to recruit believers in positions of authority and power.
- e. Findings:
 - When believers are confronted with irrefutable sensory evidence that what they have been told to believe is not true, they continue to behave as though the falsehood were true.

The Answer to the Last Question

6. The Andersen Phenomenon

f. Why and how:

- Upon recognition of the falsity of the belief, some think that they must be unintelligent or incompetent, but do not wish to reveal that to others. They maintain the fiction.
- For these individuals, their negative assessment of their intelligence or competence is bolstered by the apparent unquestioned belief of those around them.

The Answer to the Last Question

6. The Andersen Phenomenon

e. Findings:

- Others, upon recognition of the falsity of the belief, do not think that they are unintelligent or incompetent, but do not wish to reveal their discovery to others who will think they are unintelligent or incompetent. They maintain the fiction.
- “[They can’t give up ‘actuarial’ instruments], they don’t want to be laughed at in court.”

SVP Evaluator (2010)

The Answer to the Last Question

6. The Surrogate Mastery Effect

- a. Surrogate mastery engenders self-confidence.
- b. Mastery of a surrogate task or challenge can be generalized to engender confidence in the face of more difficult or unmasterable tasks.
- c. Mastery of a special vocabulary may engender confidence without actual mastery of task.
- d. Certificates, medals, plaques, trophies may give tangible (sensory) “proof” of mastery.
 - Military boot camp.
 - Vocabulary of the stock market, investing.
 - The scarecrow in the *Wizard of Oz*.

The Answer to the Last Question

6. The Surrogate Mastery Effect

- e. Mastery of Assessment of Dangerousness
 - A respected trainer (or a drill sergeant).
 - A retreat (or camp) away from home.
 - The tasks or surrogate tasks can be mastered by most within the allotted time.
 - Conceptual training, indoctrination.
 - Introduction to tasks and tools (weapons)?
 - Development of a sense group identity. Fellow seminarians, cadets, all soon to be ordained or commissioned.

The Answer to the Last Question

6. The Surrogate Mastery Effect

- e. Mastery of Assessment of Dangerousness
 - Mastering the tools and task by simulated exercises—scoring assessment tool with sample data (obstacle course, firing range).
 - Simulation may encourage forming small groups or choosing partners.
 - In risk assessment training, the leader(s) circulate as personal trainers
 - A an atmosphere of sports-like competition often develops between work groups.

The Answer to the Last Question

6. The Surrogate Mastery Effect

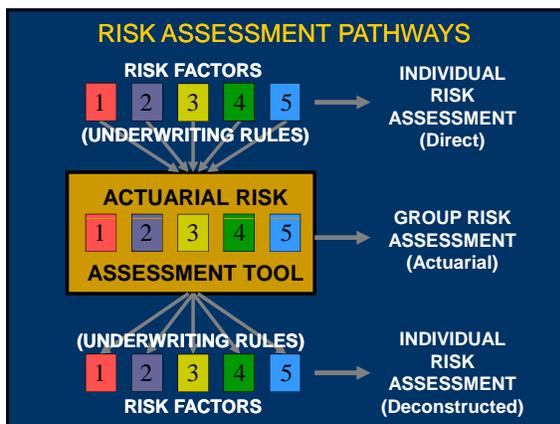
- e. Mastery of Assessment of Dangerousness
 - Individual's and work groups get caught up in the game, bent on mastery and success at the surrogate task. Games are fun.
 - The tenuous relationship between the task, scoring assessment tools, and the ability to assess the future behavior of an individual is seldom, if ever, mentioned. Never emphasized.
 - Toward the end the leader/trainer polls the audience for their scores. The participants check and match their score sheets like players in a bingo parlor.

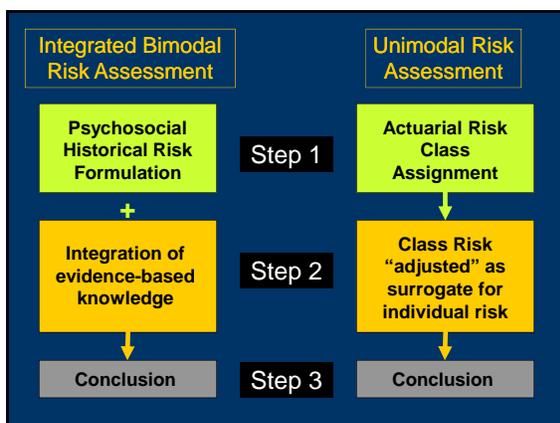
The Answer to the Last Question

6. The Surrogate Mastery Effect

e. Mastery of Assessment of Dangerousness

- In the end, no one fails. Like soldiers successfully out of boot camp, most have a new sense of confidence, or reduced anxiety about what they face—evaluations and court (actual combat).
- Most have mastered scoring a new “instrument,” mastered a new vocabulary, and may have received tangible evidence of mastery—a certificate of completion.





Integrated Bimodal Risk Assessment

C. Is the inmate likely to engage in sexually violent criminal behavior as a result of his diagnosed mental disorder? **YES.**

This inmate's diagnosable mental disorders of Pedophilia and Antisocial Personality Disorder make him more likely than not to engage in sexually violent predatory behavior. For over 40 years, between the ages of 15 and 57, this inmate has engaged in a persistent and relentless pattern of sexually victimizing prepubescent children, primarily females. In spite of his attempt to minimize his sexual orientation, his comments continue to reveal a sexual arousal pattern toward young girls. Moreover, in spite of his age, he acknowledges a continuing sexual appetite. The combination of continued sexual interest, along with his orientation toward prepubescent girls, results in a significant and high risk for sexual reoffense.

(1) An individual is considered a lower risk for sexual reoffense if the number of prior arrests is no greater than two. This inmate has five prior arrests for sex offenses.

There are additional factors that contribute to this inmate's high risk for sexual reoffense. These risk factors emerge from recent analyses of characteristics of individuals who are sexual recidivists.

At least one of the higher risk factors. This inmate's first known offense occurred when he was 12 or 14.

10

Integrated Bimodal Risk Assessment

(3) An individual is considered a lower risk for sexual reoffense if the age of first arrest for a sex offense is 15, and a higher risk for sexual reoffense if the age at first arrest for a sex offense is 21. This inmate was first arrested for a sex offense at the age of 22 while he was in the United States Army.

(4) An individual is considered a low risk for sexual reoffense if the number of prior arrests for sexual offenses is no greater than two. They are considered a higher risk for sexual reoffense if they have five or more prior arrests for sex offenses. This inmate has five prior arrests for sex offenses.

(5) An individual is a lower risk of sexual reoffense if they have only one child molestation arrest. They are a higher risk for sexual reoffense if they have two child molestation arrests. This defendant has had five child molestation arrests.

(6) An individual is considered a higher risk for sexual reoffense if their child victims are both male and female. This inmate has victimized both male and female children.

(7) An individual is a higher risk for sexual reoffense if they have a documented juvenile offense record. This inmate was arrested for a sex offense and spent time in juvenile hall (one document indicates a "refuge school" in San Francisco County).

(8) An individual is considered a higher risk for sexual reoffense if they have been diagnosed with an Antisocial Personality Disorder. This assessment finds that this inmate meets the essential features of an Antisocial Personality Disorder.

(9) An individual is considered a higher risk for sexual reoffense if they have ever been committed as a Mentally Disordered Sex Offender. This inmate was found to be a Mentally Disordered Sex Offender in the late 1960s and mid-1970s.

In conclusion, this inmate displays a number of high risk characteristics that make him more likely than not to sexually reoffend. He scores Clinical C.

III. **CONCLUSIONS**
Based on the above information, in my opinion, the inmate **does** meet the criteria of a sexually violent predator as described in Section 66000(a) of the California Welfare & Institutions Code.

Quantitative Index of Suspicion (QIOS)

1. Index of Suspicion

- Level of probability/likelihood.
- Level of suspicion.
- Sound of hoof beats? Zebras?
- Can a number indicate how suspicious we should be?
- Yes – in a QIOS.

Quantitative Index of Suspicion (QIOS)

2. ARAI nominal risk classes are QIOS.

ARAI Risk Class	QIOS
<i>High</i>	<i>High</i>
<i>Moderately-High</i>	<i>Moderately-High</i>
<i>Moderately-Low</i>	<i>Moderately-Low</i>
<i>Low</i>	<i>Low</i>

Quantitative Index of Suspicion (QIOS)

3. QIOS implications.

QIOS	Confidence	Shift Resistance
<i>High</i>	<i>High – Likely</i>	Maximal
<i>Moderately-High</i>	<i>Intermediate</i>	Moderate
<i>Moderately-Low</i>	<i>Intermediate</i>	Moderate
<i>Low</i>	<i>Low - Likely</i>	Maximal

4. QIOS enables non-deceptive narrative.

What is there to say or do?

2. Use evidence-based risk factors (direct or deconstructed) to “test” your individualized psychosocial-historical risk formulation (**Integrated Bimodal Risk Assessment**)

3. Use evidence-based risk factors to “test” class risk as a surrogate for subject’s risk. Calls for disclosure and care to not foster the illusion of equivalency or comparability. (**Unimodal Risk Assessment**)

Epilogue

- Neither conceptual nor technical criticism is likely persuade the advocates and practitioners of actuarial risk assessment to change course.
- As long as (only) *untermenschen* are adversely affected by actuarial risk assessment, the public-at-large will remain disinterested.

Epilogue

- The challenges:
 - ✓ Learning to live with an “N” of one.
 - ✓ Recognizing that proof of “accuracy” is only meaningful for groups or series.
 - ✓ Avoiding misleading claims of aggregate accuracy for individual case decisions.

Epilogue

- The challenges:
 - ✓ Letting empirically-derived research knowledge inform not control clinical decisions.
 - ✓ Knowing and integrating an analysis of protective factors in risk assessment.

Epilogue

- The challenges:
 - ✓ Distinguishing between those actuarial activities that are goal-appropriate and non-deceptive and those that are not.
 - ✓ Explicitly and “continuously” informing/warning consumers of the “group-only” applicability of the actuarial model.

DUTY TO INFORM

**FORENSIC
MENTAL HEALTH
ACTUARIAL
RISK
ASSESSMENT**

**HIGH
CASE APPLICATION
Liberty at Issue**

**MEDIUM
CASE APPLICATION
Liberty Not at Issue**

**LOW
GROUP APPLICATION**

Epilogue

- The challenges:
 - ✓ Guarding against engendering bias in case decisions with actuarial pre-classification.
 - ✓ Confining actuarial assessment to initial screening and group assignments that do not change liberty status.

Epilogue

- The challenges:
 - ✓ Recognizing ethical as well as technical dimensions of using the actuarial model.
 - ✓ Giving up the pursuit of the impossible—the capacity to predict future of individuals.

Epilogue

- The challenges:
 - ✓ Gaining confidence in making and articulating well-reasoned single case judgments informed by both case-specifics and knowledge based on empirical research without being seduced into roles of passive or active misrepresentation.

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