

Facts and Critical Aspects

# Integrity Tests and Threat Management

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Personal

- M.A Clinical Psychology/ Philosophy
- Ph.D in Philosophy of Science (Amsterdam, 2006)
- Law Enforcement: 'Covert Policing': assessment and management of Covert Human Intelligence Sources and Agents. Behavioural Risk Analysis on Organized Crime subjects.
- Co-founder Dantes International: Behavioural Risk Services (training and advice on behavioural risks: from threat management to psychological screening sensitive positions.)

## General Proposition

- Before we consider incorporating integrity tests in a threat assessment procedure (tap), we must (A) first understand what they are; (B) what to think of their psychometrics and (C) how to use them in a TAP.

## General

- In a Threat Assessment Procedure (TAP) the presence or history of deviant or counterproductive (work) behaviours are part of the scoring procedure (e.g. WAVR-21).



- Integrity tests aim to measure or predict deviant behaviours (in the workplace).



- Therefore it is logical to assume they could have (some) value to a TAP.

How could they be useful?

- A Threat Assessment Procedure aiming at workplace violence wants to know whether there exists evidence of counterproductive/deviant behaviour in the workplace such as aggression, entitlement, substance abuse, etc).
- This is the kind of information integrity tests are supposed to provide us with.

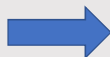
Problem

- Related to this is the question how these tests are going to be used in a TAP?
- For prevention?
- When there are worrying signals?

Problem

- However, this information only makes sense if these tests are reliable and valid measures and/or if people are willing to provide this information.
- A thorough examination of the literature shows a confusing picture of the quality and relevance of these tests.

Categories of  
Workplace  
Violence and  
integrity tests



**Table 1**

**Categories of workplace violence**

Type 1 Violent acts by criminals who have no other connection with the workplace, but enter to commit robbery or another crime.

Type 2 Violence directed at employees by customers, clients, patients, students, inmates, or any others for whom an organization provides services.

Type 3 Violence against coworkers, supervisors, or managers by a present or former employee.

Type 4 Violence committed in the workplace by someone who does not work there, but has a personal relationship with an employee (eg, abusive spouse or domestic partner).

*From Rugala EA, Isaacs AR, editors. Workplace violence: issues in response. Quantico (VA): Critical Incident Response Group, National Center for the Analysis of Violent Crime, FBI Academy; 2003.*

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Structure

- I: Facts about Integrity Tests

A slide layout consisting of a light gray rectangular area on the left and a dark gray rectangular area on the right. The light gray area contains a white-bordered box with the word "Structure" centered inside. The dark gray area contains two levels of bullet points.

Structure

- I: Facts about Integrity Tests
- II: Issues with Integrity Tests
  - Predictive validity
  - Faking (intentional cheating)
  - Ethical issues

## Structure

- I: Facts about Integrity Tests
- II: Issues with Integrity Tests
  - Predictive validity
  - Faking
  - Ethical issues
- III: Some thoughts about IT and a TAP (i.e, workplace violence).

## I: Facts about integrity tests

- Scope and Context
- Types of Tests
- History and Prevalence

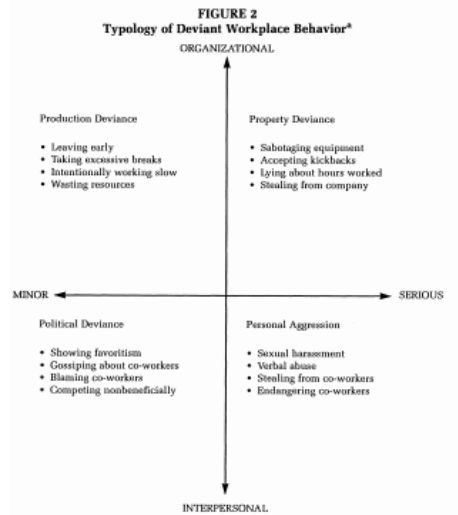
## I: Facts about integrity tests

### GENERAL SUMMARY

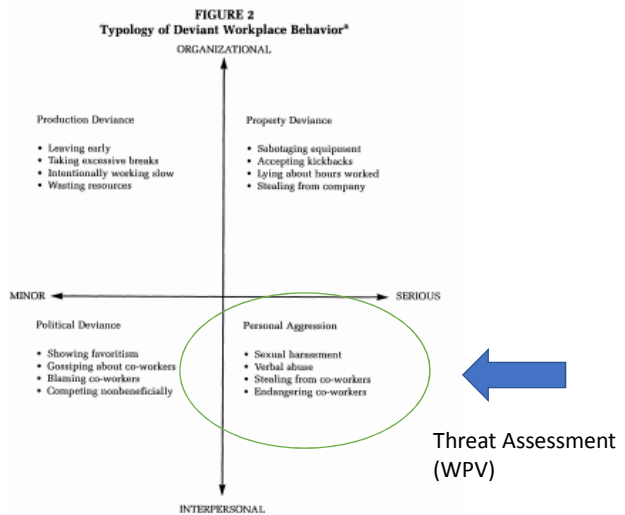
- Scope: Comprehensive (deviant (workplace) behaviours)
- Method: mostly 'paper-pencil' (self-reports)
- 2 types: Overt and Personality Based
- Focus: the Individual
- Situation: pre-employment
- Goal: measuring/predicting deviant behaviour/Counterproductive work behaviour.

Context:  
Deviant  
Workplace  
Behaviour

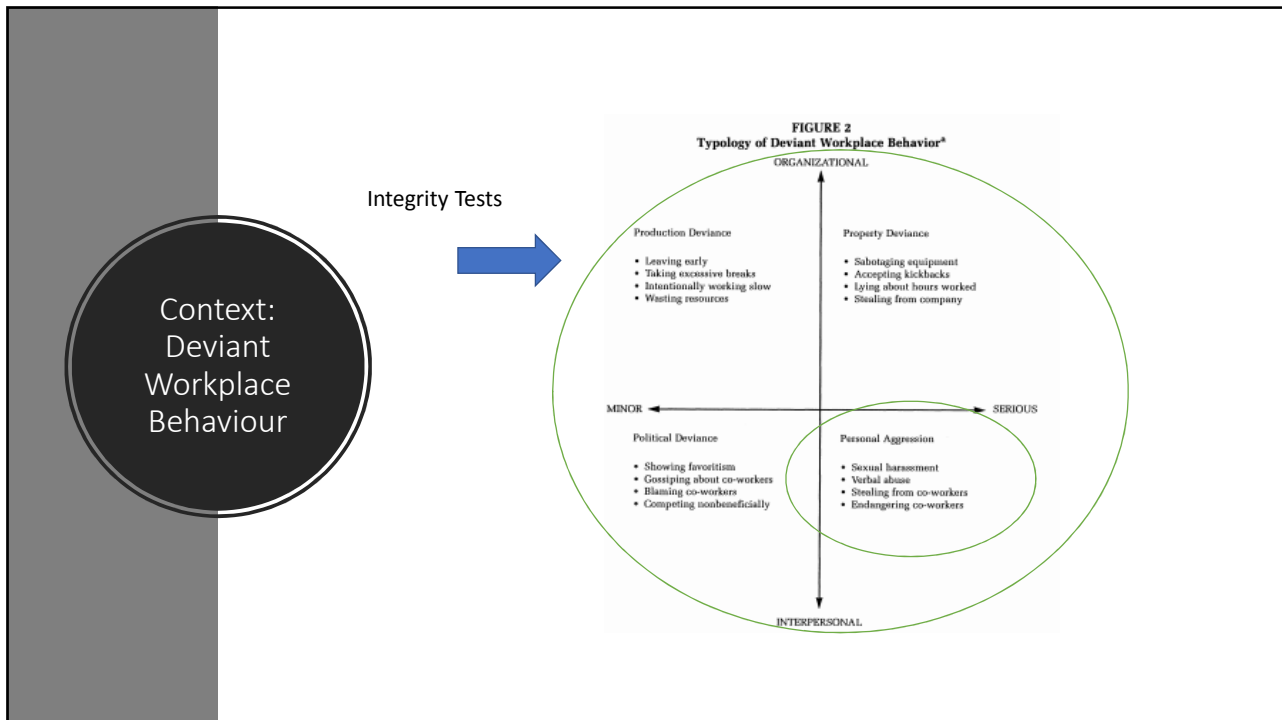
Context:  
Deviant  
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Behaviour



Context:  
Deviant  
Workplace  
Behaviour







Deviant Workplace Behaviour

- CWB or deviant behaviours are related to each other (due to self-control)
- A person engaging in serious deviant behaviours often engages in the minors as well (but not necessarily vice-versa)
- Many deviant behaviours are not (necessarily) part of a threat to the environment, but could potentially be relevant. So they could be considered as risk-factors or flagged as such.

## Deviant Workplace Behaviour

- Integrity tests have a wider scope than threat assessment
- Many deviant behaviours are not necessarily part of a threat to the environment, but could potentially be relevant. So they could be considered as risk-factors or flagged as such.
- This last point is subject to empirical evaluation: which elements of minor deviant behaviours are relevant to predict or explain the more major ones at a later stage.

## The Scope and Width of Integrity tests

- An integrity test does not capture the complete dynamics of deviant behaviour in organizations/or the workplace

The Scope and Width  
of Integrity Tests

- Antecedents of Deviant Behaviour in the literature:
- Individuals
- Situations
- Ethical Climate of Organizations

The Scope and Width  
of Integrity Tests

- Antecedents of Deviant Behaviour:
- Individuals
- Situations
- Ethical Climate of Organizations
- Therefore, the result of an integrity tests will only explain a part of deviant behaviour in organizations since there are two other significant factors.

### The Scope and Width of Integrity Tests

- Antecedents of Deviant Behaviour:
  - Individuals
  - Situations
  - Ethical Climate of Organizations
- Therefore, the same integrity profile could have different consequences depending on the context. As a 'stand-alone' the test may have little meaning.
- "Take the professional cycling generation of the nineties as an example."

### Prevalence of Deviant Behaviour and use of Integrity Tests

Prevalence of Deviant  
Behaviour and use of  
Integrity Tests

- It exists, but it also a dark number. So we don't know exactly the real physical/emotional/financial/productive damage.
- Estimations run from 5% to 95% that people engage in CWB.
- According to ACFE: 5% of annual revenues lost due to fraud.
- Number of use of integrity tests: depends on regions. US different numbers in literature, range 3-5 million a year (often at entry-level jobs).
- > 40 registered tests available.

History of Assessing  
Integrity or  
workplace deviance

- 3 Methods
- Biometric (Polygraph or Lie (fear) Detector)= measuring honesty
- Background Checks and interview
- Paper-Pencil tests

## Succes of paper-pencil tests

- 1980's started with the development of "paper-pencil" integrity tests = measuring honesty and theft.
- Personality research revived during the eighties. 'Personality traits are real (and a predictor of job performance)' became an established view'.
- Lack of good alternatives: 'Ban' on the polygraph in 1989 (EPPA).
- Background screening: costly, time consuming:
- Available information is not always relevant and relevant information is not always (equally) available.
- Integrity tests are easy to administer, cheaper, equal treatment of applicants: standardization (available/relevance).
- Succes of the self-report method in psychological testing.
- Beginning of the 1990's: High Impact MetaReviews ' which led to a positive outlook on the quality of paper-pencil integrity tests.

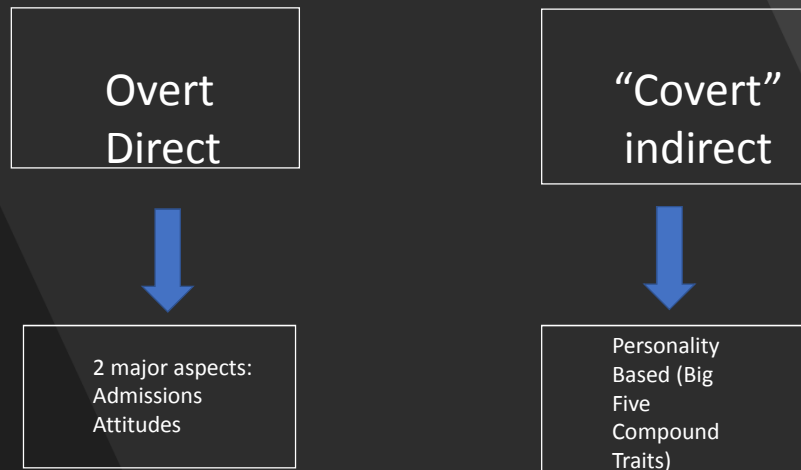
## Two Categories of Integrity Tests

Overt

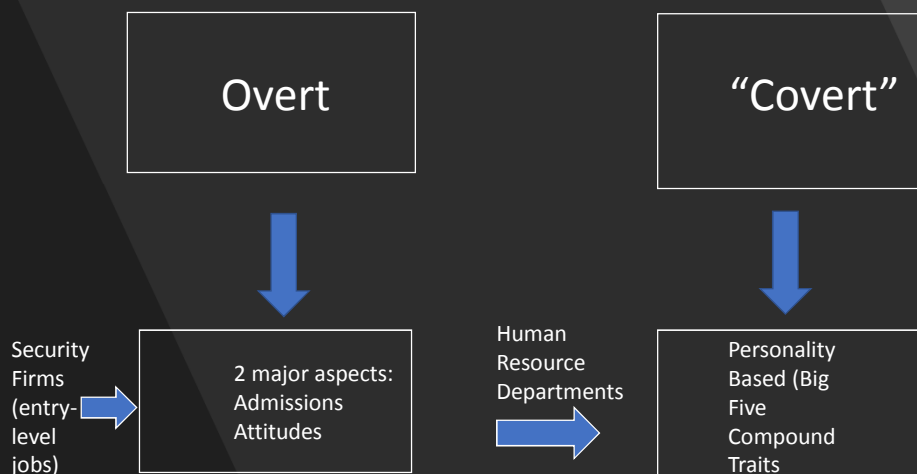


2 major aspects:  
Admissions  
Attitudes/Beliefs

## Two Categories of Integrity Tests



## Kinds of Integrity Tests



### Scope of 'Commercial' Integrity tests

Test Publishers sell Integrity tests with all kinds of purposes in mind:

- Deviant behaviour
- Job performance
- Sales improvement
- Dependability
- Training Performance
- Sociability.
- They like to emphasize the positive aspects of using these tests, not just avoiding bad behaviour
- "integrity tests are the best predictor of job performance".

## Dimensions of Overt Integrity Tests

Dependability

Interpersonal  
agression

Computer  
abuse (cyber-  
loafing)

Substance  
abuse

Organizational  
values

Sexual  
Harassment

Social  
desirability  
scale



Sample Items

- Take note of the fact that one of the lines in the instructions often reads:
- “There are no right or wrong answers”
- (often used for demand reduction).

Sample Items

- “I have shared confidential company information with unauthorized others.”
- “I have forwarded email with racial jokes to others at work.”
- “I easily get ‘pissed off’ at my co-workers.”
- “People make too much of sexual harassment.”
- “While driving I sometimes become enraged with other drivers.”

- Scoresheet of Counter Productive Behaviour Index

SCALE SCORE	Dependability (Dp) Concerns	Aggression (Ag) Concerns	Substance Abuse (SA) Concern	Honesty (Hn) Concerns	Computer Abuse (CA) Concerns	Sexual Harassment (SH) Concerns	Scale Score
20							20
19							19
18							18
17							17
16							16
15							15
14							14
13							13
12							12
11							11
10							10
9							9
8							8
7							7
6							6
5							5
4					X		4
3		X					3
2			X				2
1	X			X		X	1
0							0

### Personality Based Tests

- Usually a Mix of Traits of Dependability (rule following) and Emotional Stability and Agreeableness (hostility, attachment).
- Sometimes a separate dimension (e.g. HEXACO-PI: Honesty-Humility).
- Also called as Alpha Factor: Stability-Sociability dimension or “Getting Along”

## Assumptions

- Overt:
  - Admissions: Past behaviour best predictor for future behaviour (Behavioural Consistency).
  - Beliefs: Intention precedes Behaviour (Agency).
- Personality based:
  - Traits are predictive of behaviour

## Part II Issues with integrity tests

- Predictive validity
- Response Distortion (Faking/Cheating)
- Ethical issues

Part II  
Issues with integrity  
tests

- Challenging the Established View: “Integrity Tests are valid and reliable predictors of Job Performance (including workplace deviance)”.

Issue number 1:  
Predictive Validity

- If we aim to select people with right characteristics or avoid deviant personalities: Do we have instruments that make sharp distinctions between good and bad? Or is there are a large grey zone?

Psychometric issues:  
Sharp boundaries?

- If we aim to select people with right characteristics: Do we have instruments that make sharp distinctions between good and bad? Or is there are large grey zone?
- Many Instruments work with 'cut-off' scores, but this distorts reality. (black and white view).

Psychometric issues:  
Sharp boundaries?

- If we aim to select people with right characteristics. Do we have instruments that make sharp distinctions between good and bad? Or is there are large grey zone?
- Remember workplace deviance depends on
  - Persons
  - Situations
  - Culture of Organizations

Psychometric issues:  
Sharp boundaries?

- In other words: how much of the variance in deviant workplace behaviour will be explained or predicted by the test and how much will be explained or predicted by other aspects not measured by the tests?
- What is an acceptable number?

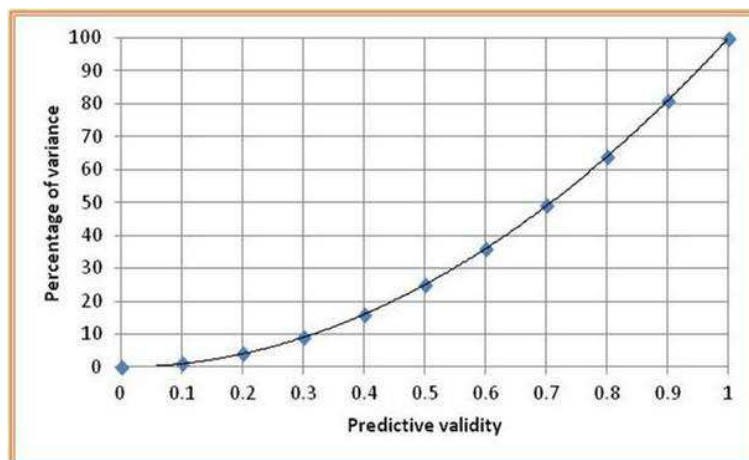
Psychometric issues:  
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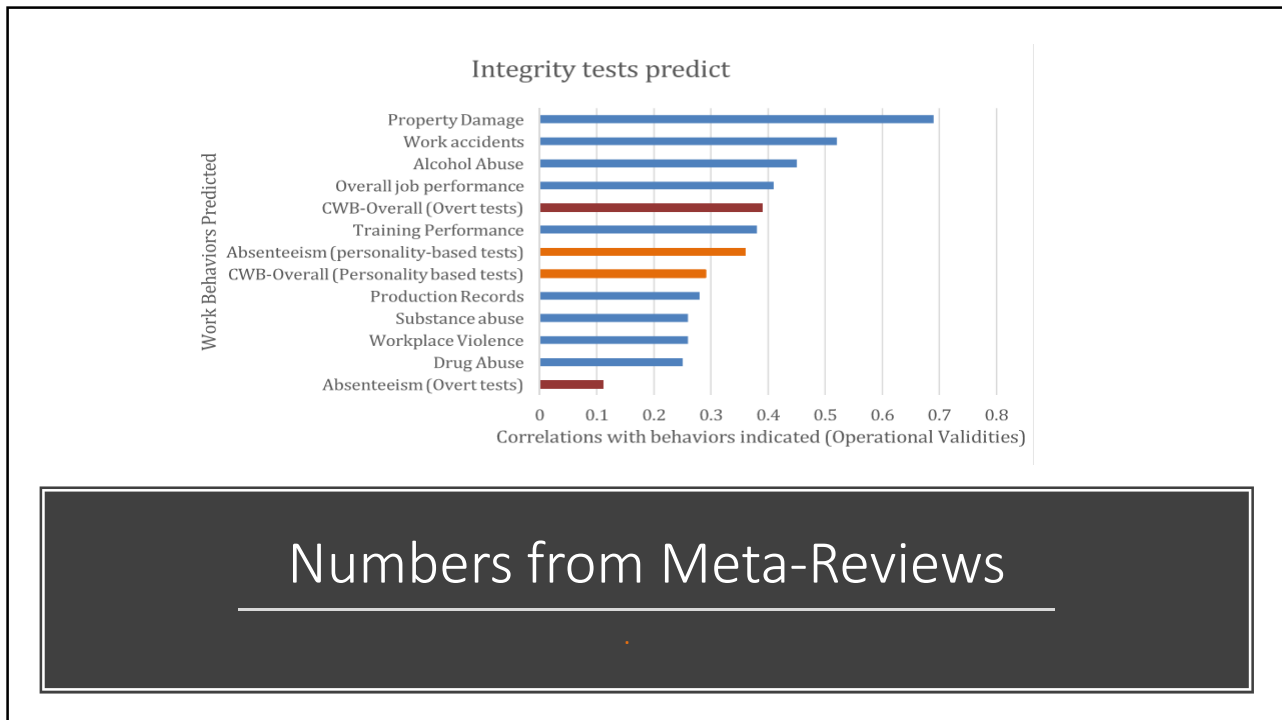
- One way could be to audit the positive effects of implementing integrity tests in the workplace
- But how should we do that?
- (higher production rates, turnover, less reported incidents of deviance, supervisor ratings, job satisfaction?)
- This is difficult.

Psychometric issues:  
Sharp boundaries?

- What Percentage of Deviant Behaviour (the outcome or criterion) Is Explained By The Test.
- Test = predictor
- Deviant behaviour = criterion
- Criterion Related Validity: Predictive Validity
- Now talk about validity only makes sense if the test is reliable.

## How does Predictive Validity Work?





### Predictive Validity

- Some accepted PV numbers in the Literature:
- Overall Overt tests (.39)
- Overall Personality Based (.29)
- Workplace violence (.25)
- Different numbers for different kinds of deviant behaviours. Not all deviance is predicted equally well. (ranging from .70 to .12)
- What does this mean?



## Predictive Validity

- Overt tests (.39)
- Personality Based (.29)
- A PV number of .39 in psychological tests is commonly considered as very good. (although it explains not more than 16% of the variance, 84% of the deviant behaviour is not explained by the test).

## Predictive Validity

- A PV number of .39 in psychological tests is considered as very good. (although it explains not more than 16% of the variance).
- Compare this with PV numbers of medical examinations:
- Ibuprofen → pain reduction (.08)
- High Cholesterol → premature death (.01)

## Three Problems with the Numbers

### Problem 1

- The number of 0.39 in Overt Tests
- Some of these 'positive' meta-reviews are a bit of a "grab bag": all sorts of experiments are put in the same meta-analysis while there is a difference in scope and method and quality."
- Different kinds of criterions are used which are not all genuinely external.

Problem 1

- So numbers like .39 in Overt Tests and .29 in Covert tests are probably inflated because of a lack of use of real external criteria.

Problem 1

- The behavioural events in the tests and the criteria to validate the test are in many instances from the same source: Admissions of deviant behaviour at point 1 and measurement of CWB by means of self-reports at point 2.
- The predictor and the criterion seem to be the same source. This looks more like test-retest reliability or a biased concurrent validity study.
- Criterion numbers for concurrent validity studies higher than predictive studies.
- This affects the general correlation coefficient.

Problem 2

- Many (Positive) Studies based on data of test Publishers. According to some this poses no problem.

Problem 2

- Caution: Many (Positive) Studies based on Data of Test Publishers:
- However, according to a critical review on integrity tests: the estimated validities are in many instances almost 2 times higher for test publishers results than non-test publishers (peer-reviewed) results.

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- Caution: Many (Positive) Studies based on Data of Test Publishers:
- According to a critical review on integrity test: the estimated validities are in many instances almost 2 times higher for test publishers results than non-test publishers (peer-reviewed) results.
- So, if corrected the numbers are much lower...

Problem 3

- Related to the second problem: Some Meta-Reviews probably biased or tainted because of "file drawer problem".

### Problem 3

- Some Positive Meta-Reviews probably biased or tainted because of “file drawer problem”
- Meaning: many studies that didn’t produce significant results aren’t published/ or ignored and therefore aren’t incorporated in the meta-review at a later stage.
- Especially seen as a risk when dealing with commercial products (e.g sponsored research: less motivated to publish results that don’t support their products, or manipulate them).

### Some Conclusions in the meantime

- Integrity tests do not predict deviant behaviours equally well.
- Meta-Reviews have some contentious aspects because of a mix of good, bad, irrelevant experiments included in the meta-review.
- Validities are probably much lower than these meta-reviews want us to believe.
- Still, a rather modest PV number can nevertheless be very significant (remember the cholesterol study).
- Workplace violence has a number of .25, corrected for test publishers is .12,5, which explains 1,56 percent of the variance.

Issue number 2: Faking  
the Integrity Test

- **Generic Term: 'Response Distortion'**

- Self deceptive enhancement
- Wording/framing of the Questions
- The construction of how to respond (e.g forced choice versus likert scales, etc)
- Lack of Self-Insight
- Cheating or Intentional Faking

Faking the Integrity Test

- Do People fake tests?

Faking the Integrity Test

- Do People fake tests?
- It depends.....on how you frame the issue?

Faking the Integrity Test  
or  
"Response Distortion"

- Three Questions are important....



Faking the Integrity Test

- Can People fake tests? (ability to do so)

Faking the Integrity Test

- Can People fake tests? (ability to do so)
- Will People Fake tests? (motivation or inclination to do so)

## Faking the Integrity Test

- Can People fake tests? (ability to do so)
- Will People Fake tests? (motivation or inclination to do so)
- How often and when will people fake tests? (motivation and circumstances)

## Faking the Integrity Test

- Can People fake tests?
- Will People Fake tests?
- How often and when will People Fake tests?
- These are different kind of questions

Faking the (Integrity)  
Test

• It depends...

- Circumstances: High stakes vs Low Stakes.
- Motivation (perception it is beneficial).
- Test Construction (ease or difficulty to do so).

Faking the Integrity Test

- One out of four will fake in high stakes tests.

### Faking the Integrity Test

- One out of four will fake in high stakes tests
- The question of whether this improves their scores depends on the test construction (clear purpose or disguised) and their expectations (perceptions), but the number raises some concerns, because it will have detrimental effects on rank-ordering of candidates in selection settings.

### Faking the Integrity Test

- Some Consensus:
- One out of four will fake in high stakes tests
- The question whether this improves their scores depends on the test construction (clear purpose or disguised), but the number raises some concerns, because it will have detrimental effects on rank-ordering of candidates in selection settings.
- Can we correct and detect faking? In the (absence of the polygraph), we make use of social desirability scales/unlikely virtues.

- Scoresheet of Counter Productive Behaviour Index

1954 validity concerns  
(Good Impression GI Score)

SCALE SCORE	Dependability (Dp) Concerns	Aggression (Ag) Concerns	Substance Abuse (SA) Concern	Honesty (Hn) Concerns	Computer Abuse (CA) Concerns	Sexual Harassment (SH) Concerns	Scale Score
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6							6
5							5
4					X		4
3		X					3
2			X				2
1	X			X		X	1
0							0

Dependability Aggression Substance Abuse Honesty Computer Abuse Sexual Harassment

Faking the Integrity Test

- Social Desirability (SD) measures are not considered as good measures of faking.
- We can't tell exactly whether the (SD) measure reflects something substantial of the personality (which you try to measure) or whether it measures merely a motivational response to the test situation (which the scale is constructed for).

### Faking the Integrity Test

- In other words: a higher score on social desirability could also be a sign of a higher ability to socially adapt, which is in many instances considered as belonging to a personality trait.
- “In everyday life it is impossible to say where faking ends and authenticity begins” (Hogan, 2005)

### Faking the Integrity Test

- In other words: a higher score on social desirability could also be a sign of a higher ability to socially adapt, which is in many instances a positive personality feature.
- “In everyday life it is impossible to say where faking ends and authenticity begins” (Hogan, 2005).
- However, faking is a problem especially in high-stakes conditions and where the purpose of the test is clear. This probably concerns the quality of overt-tests.

Ethical issues

- Do we base our hiring decision on 'bad dispositions' or on 'bad deeds'?

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- Do we base our hiring decision on 'bad dispositions' or on 'bad deeds'?
- Remember the PV numbers and the amount of variance it explains.

Ethical issues

- Should we make hiring decisions based on the distinction between 'bad dispositions and 'bad deeds'?
- Social Stigma with Integrity Testing:

Ethical issues

- Should we make hiring decisions based on the distinction between 'bad dispositions and 'bad deeds'?
- Social Stigma with Integrity Testing:
- Keep in mind that a low score on for instance a cognitive ability test has different consequences for a person than a low score on an integrity test.



## Ethical issues

- Social Stigma with Integrity Testing:
- 'e.g. Ban the box legislation': if someone is convicted in the past, he/she runs the risks of not getting hired anywhere in the future, which creates a group of social outcasts and probably re-offenders.
- Whether this is a social problem: Conviction rates differ between countries.

## Ethical issues

- What kind of (implicit) message do you send to your future employees when asking them all kind of questions about behavioural deviance?
- It can have a negative impact on the reputation of companies and deter future employees.
- This of course depends on the nature of the job as well.

### Conclusions about integrity tests

- Literature is confusing about the psychometric quality of these tests
- Validity is probably much lower than many adherents to these tests wants us to believe
- But they do have some validity which can be significant.
- Faking is primarily a problem in high-stakes conditions but it is pervasive.
- Integrity tests can be considered as such
- Therefore, there will be dire consequences when you use these tests in isolation: both as a predictive tool and because of ethical reasons.

### Now return to the Question of Integrity Tests in a Threat Assessment Procedure

- Where could they fit in?
- From a preventive perspective: very risky. It doesn't tell you much.
- However, combined with other methods they could have some value addressing issues during interviews and as part of a background screening.

Now return to the  
Question of Integrity  
Tests in a Threat  
Assessment  
Procedure

- In the meantime, I think we should adopt a sceptical stance towards these clear-purpose tests, especially in high-stakes conditions.
- For 'personality-based tests' we can be more optimistic.
- It depends on the construction (disguised) and how the information is used in relation to other methods (background, interview, practical exercises).
- The problem will be ethical (is it allowed to hide your intentions with a test). Criterion of 'job relatedness and business necessity'.

The End

- Thank you for your attention.
- Questions and Discussion..
- Contactdetails:
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