COGNITIVE APPROACHES TO THE ASSESSMENT OF SEXUAL INTEREST IN SEXUAL OFFENDERS

Edited by

David Thornton

and

D. Richard Laws
COGNITIVE APPROACHES TO THE ASSESSMENT OF SEXUAL INTEREST IN SEXUAL OFFENDERS
WILEY SERIES IN
FORENSIC CLINICAL PSYCHOLOGY

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D. Richard Laws
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SERIES EDITORS’ PREFACE

ABOUT THE SERIES

At the time of writing, it is clear that we live in a time, certainly in the United Kingdom and other parts of Europe, if perhaps less so in other areas of the world, when there is renewed enthusiasm for constructive approaches to working with offenders to prevent crime. What do we mean by this statement and what basis do we have for making it?

First, by ‘constructive approaches to working with offenders’, we mean bringing the use of effective methods and techniques of behaviour change into work with offenders. Indeed, this view might pass as a definition of forensic clinical psychology. Thus, our focus in this series is the application of theory and research to develop practice aimed at bringing about a change in the offender’s functioning in order to reduce re-offending. The word constructive is important as it allows a clinical approach to be set against approaches to behaviour change that seek to operate by destructive means. Such destructive approaches are typically based on the principles of deterrence and punishment, seeking to suppress the offender’s actions through fear and intimidation. A constructive approach, on the other hand, seeks to bring about changes in an offender’s functioning that will produce, say, enhanced possibilities of employment, greater levels of self-control, better family functioning or increased awareness of the pain of victims, with the net result of reduced numbers of victims.

A constructive approach faces the criticism of being a ‘soft’ response to the damage caused by offenders, neither inflicting pain and punishment nor delivering retribution. This point raises a serious question for those involved in working with offenders. Should advocates of constructive approaches oppose retribution as a goal of the criminal justice system as a process that is incompatible with treatment and rehabilitation? Alternatively, should constructive work with offenders take place within a system given to retribution? We believe that this issue merits serious debate.

However, to return to our starting point, history shows that criminal justice systems are littered with many attempts at constructive work with offenders, not all of which have been successful. In raising the spectre of success, the second part of our opening sentence now merits attention, that is, ‘constructive approaches to working with offenders to prevent crime’. In order to achieve the goal of preventing crime, interventions must focus on the right targets for behaviour change. In
addressing this crucial point, Andrews and Bonta (1994) have formulated the need principle:

Many offenders, especially high-risk offenders, have a variety of needs. They need places to live and work and/or they need to stop taking drugs. Some have poor self-esteem, chronic headaches or cavities in their teeth. These are all ‘needs’. The need principle draws our attention to the distinction between criminogenic and non-criminogenic needs. Criminogenic needs are a subset of an offender’s risk level. They are dynamic attributes of an offender that, when changed, are associated with changes in the probability of recidivism. Non-criminogenic needs are also dynamic and changeable, but these changes are not necessarily associated with the probability of recidivism (p. 176).

Thus, successful work with offenders can be judged in terms of bringing about change in non-criminogenic need or in terms of bringing about change in criminogenic need. While the former is important and, indeed, may be a necessary precursor to offence-focused work, it is changing criminogenic need that, we argue, should be the touchstone in working with offenders.

While, as noted above, the history of work with offenders is not replete with success, the research base developed since the early 1990s, particularly the meta-analyses (e.g. Lösel, 1995), now strongly supports the position that effective work with offenders to prevent further offending is possible. The parameters of such evidence-based practice have become well established and widely disseminated under the banner of ‘What Works’ (McGuire, 1995, 2002).

It is important to state that we are not advocating that there is only one approach to preventing crime. Clearly there are many approaches, with different theoretical underpinnings, that can be applied to the task of reducing offending. Nonetheless, a tangible momentum has grown in the wake of the ‘What Works’ movement as academics, practitioners and policy makers seek to capitalize on the possibilities that this research raises for preventing crime. The task for many service agencies lies in translating the research into effective practice.

Our aim in developing this series in Forensic Clinical Psychology is to produce texts that review research and draw on clinical expertise to advance effective work with offenders. We are both committed to the ideal of evidence-based practice and we will encourage contributors to the series to follow this approach. Thus, the books published in the series will not be practice manuals or ‘cook books’: they will offer readers authoritative and critical information through which forensic clinical practice can develop. We are both enthusiastic about the contribution to effective practice that this series can make and look forward to continuing to develop it even further in the coming years.

ABOUT THIS BOOK

The official crime statistics suggest that compared to some other types of crime, such as burglary and assault, sex offences are relatively low volume. In this light, it may be thought that sex offenders attract a disproportionately large amount of attention. There are journals given to the topic of sex offending, regular international conferences and any number of books – indeed, this is the fifth title in
this series solely concerned with sex offenders. However, it is also known that sex offences are massively under-reported and the official figures are but the tip of a very substantial iceberg. Further, the harm and distress caused by sex offences in their many forms and guises, affecting both adults and children, perhaps marks them out as a particularly heinous form of criminal activity.

Of course the study of sex offenders is not new and there is a large research base to draw on. However, it is noticeable that as offender-focused research matures, researchers are addressing increasingly fine-grained issues. An example of this shift to detailed examination of specific aspects of offenders’ functioning is seen in the previous book in the series, edited by Theresa Gannon, Tony Ward, Anthony Beech and Dawn Fisher (2007), which focussed on cognitive functioning in aggressive offenders. In this book, David Thornton and Richard Laws examine the precise issue of cognitive approaches to the assessment of sexual interest in sex offenders. This is a topic that covers a large amount of ground: the book’s contents range from widely used means of assessment, such as questionnaires, to methods designed specifically for sexual assessment, such as penile plethysmography and encompassing innovative approaches such as the Stroop test and the implicit association test.

The editors of this collection are both acknowledged experts in the field of sex offending, with a weight of experience behind them as practitioners, service managers and researchers. They have drawn together an outstanding collection of chapters written by authorities in the field which, we believe, will make a significant contribution to the work of those engaged in practice and research aimed at preventing sex offending.

Clive Hollin
Mary McMurran

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INTRODUCTION

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WHY MEASURE SEXUAL INTEREST?

More than any other psychological characteristic, the nature of their sexual interests is what distinguishes repetitive sexual offenders from both non-offenders and lower risk offenders. Valid and efficient technologies for assessing the sexual interests of sexual offenders are of critical value in the identification of treatment needs and the assessment of risk. For treatment professionals, they also have the additional value that sharing the results of these assessments with offenders can be used to motivate them to accept that they have a problem that they need to work on. The main purpose of this book is to bring together critical reviews of the more established technologies for assessing sexual interest together with explanations of newly developing technologies by the primary researchers involved in their development.

THE PENILE PLETHYSMOGRAPH

Since about 1975, a psychophysiological method called penile plethysmography (PPG) – direct measurement of circumferential or volumetric changes in the male genital – has been used to assess sexual interest, primarily in sexual deviants. The procedure has, for the most part, proven to be an excellent technology for assessing sexual interest. However, it is expensive, invasive, labour intensive, limited to males and ideally requires a motivated and responsive subject. These problems do not render the procedure useless but they limit its utility and in some circumstances
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challenge the validity of results obtained with the method. In spite of these prob-
lems, a considerable literature has built up over the past three decades that more or
less supports the use of PPG. In Chapter 1, Laws critically examines this literature
and identifies developments in this older technology that seek to overcome some
of its limitations.

Limitations of the PPG as an assessment technology have led to a search for a
viable alternative. Subsequent chapters explore different alternatives.

The best established of these alternatives – the amount of time that a subject
views a possibly erotic stimulus – has been tested in various formats since 1942.
This technique has been refined within the past 10 years and there are now two
commercially available viewing time procedures. The Abel Assessment for sexual
interest (AASI) was developed and marketed by Abel Screening Inc. of Atlanta.
This is a simple viewing time procedure which measures how long a subject looks
at a stimulus. It is a commercial product exclusively marketed by Abel Screening
who also controls administration procedures, scoring and data interpretation. The
scoring algorithm is proprietary and has not been made available for indepen-
dent empirical evaluation. This lack of peer review has raised concerns about the
validity of the test. In Chapter 2, Sachsenmaier and Gress review the evidence-
supporting use of this method, identify its limitations and propose circumstances
when the method is appropriate for use and circumstances when it should not be
employed.

The second procedure, Affinity 2.1, was developed for the assessment of pae-
dophilic interest in persons with learning disabilities. The computer-based pro-
cedure uses convergent measures – the ranking, then rating of non-pornographic
images while viewing time is measured. A pilot investigation in 2003 was success-
ful in assessing sexual interest in the learning disabled as well as normal subjects.
In Chapter 3, David Glasgow, the primary developer of this procedure, describes
the way it was developed to enhance its user-friendliness both for the person be-
ing assessed and for the clinician interpreting the results. In contrast to the AASI,
Affinity is probably best understood as a structured, user-friendly way of eliciting
self-reports of sexual attraction. It incorporates measures of the time spent viewing
images as a validity check on self-report rather than as primary measure of sexual
interest in its own right.

In Chapter 4, Gress and Laws go on to explore the use of Choice Reaction Time
(CRT) tasks in assessing sexual interest. A particular value of this chapter is its
clear introduction to an information-processing model of sexual content-induced
delay (SCID). The central notion here is that a salient sexual stimulus will trigger
attentional processes that reduce the attentional resources available for other tasks.
A common paradigm is to instruct the person being assessed to press a response
key indicating the location on a screen of a briefly appearing dot. Neutral or sexual
images of different kinds are present during this task and the degree to which they
induce errors or slowing in the CRT recorded. To date, research indicates that the
methodology can assess gender preference, but it has not yet been developed in a
way that allows sexual preference for children to be assessed.

Like the CRT method, a number of other approaches to assessing sexual in-
terest have tried to adapt well-established paradigms from experimental social
and cognitive psychology. This has the advantage of being soundly based in
academic psychology but has only recently been applied to the assessment of sexual offenders.

In Chapter 5 Gray and Snowden describe their pioneering application of the implicit association test (IAT) in assessing the sexual interests of child molesters. The IAT involves asking the participant to classify stimuli, for example, as pleasant or unpleasant, or as insects or flowers. The classification can be made more complex by asking people to classify stimuli by whether they are pleasant or flowers versus unpleasant or insects. When category labels are combined like this, it has been found that combinations that involve cognitively compatible categories (e.g. flower and pleasant) allow faster categorization than combinations that involve cognitively incompatible categories (e.g. insect and pleasant). By comparing the speed with which categorization judgments are made for different combinations of categories, it is possible to determine the way the categories are implicitly associated within the person’s cognitive system. The IAT has been widely used in social psychological research to measure attitudes and affective responses. It has the particular advantage that it does not depend on truthful or insightful self-report as it measures the cognitive side effects of attitudes directly. The challenge in applying this to measuring child molesters’ interests is how you develop stimuli that are amenable to the IAT paradigm to represent the contrast adult versus child and the contrast sexual versus non-sexual. Gray and Snowden’s research represents a brilliant solution to this problem combining verbal and visual stimuli. Findings reported by this research group include that their versions of the IAT can distinguish men who have committed sexual offences against children from other kinds of offender, can distinguish paedophiles from hebephiles and that offenders who are in complete denial of their sexual offences produce responses on the IAT that are just as deviant as those of men who admit their offences.

In Chapter 6, Nunes reports an independent attempt to adapt the IAT to assess child molesters’ implicit attitudes to themselves and to children. Like Gray and Snowden, Nunes finds that child molesters can be distinguished from non-sexual offenders by their showing an unusual association between the concept of sex and the concept of children. Nunes adds the additional finding that this association is stronger for those who, according to standard actuarial instruments, present a greater risk of committing further sexual offences.

Cumulatively, the research described in these two chapters makes the IAT the best established of the measures of sexual interest that are based on adapting well-established paradigms from social and cognitive psychology.

In Chapter 7, Flak, Beech and Humphreys draw on the effect of salient stimuli on attentional resources in a way that is different from its use in the CRT. They start from the concept of the attentional blink. This is the well-established phenomenon whereby allocation of attentional resources to a particularly emotionally salient stimulus means that these resources are not available for processing a stimulus that is presented shortly afterwards. Flak et al. review the more general literature on the rapid serial visual presentation (RSVP), and identify a more credible process model with associated brain mechanisms. They then go on to describe how this has been adapted to the measurement of sexual interest. Results supporting the paradigm’s ability to distinguish gender preference are reported, though the effect seems to depend on the use of unclothed stimuli. And preliminary results are
reported finding that clothed images of children produce a greater attentional
blink in child molesters than in non-offenders.

In Chapter 8, Smith reviews research by himself and Waterman, and by others,
suggesting that the strength of the sexual schema of sexual offenders could be
assessed using a version of the Stroop colour-naming task. The general finding
shown for a variety of groups is that taking longer to name the colour of words re-

tlects the emotional significance of the words for the individual. Repeated studies
have shown aggressive individuals showing slowed colour naming with aggres-
sively themed words and preliminary results indicate that sex offenders may take
longer to name the colour of sex-related words. This would seem to imply that
sexual words and the associated ideas possess greater emotional significance for
them. So far the methods seems to be a potential measure of sexual preoccupation
rather than of a particular sexual interest, though it is clear that the method could
be adapted to assess specific sexual interests if stimuli were more specific to those
interests. A particular strength of this chapter is the detailed guidance on how to
set up effective Stroop tasks for identifying individual differences.

In Chapter 9, Ó Ciardha and Gormley demonstrate how the modified Stroop
task can be used to assess the direction of sexual interests. They use images instead
words so that the task becomes to name the colour of an image rather than of a
word. Images can then be used to depict either male adults, female adults, male
children or female children. They demonstrate that responses to images of adults in
this modified Stroop task could be used to identify adult males’ gender preference.
This chapter is also of interest because it reports research suggesting that combining
IAT and Stroop methods can give more powerful identification of sexual interests.

Finally, in Chapter 10, Hecker, King and Scoular report a series of studies ex-
ploring the use of the startle probe reflex to assess male sexual interest. They show
that the strength of a man’s eyeblink reflex in response to a startling stimulus is
dlessened when they are viewing a sexual image that they find appealing. This eye-
blink response measure of sexual interest is shown to correlate appropriately with
both self-report and PPG measures of sexual interest. Additionally, they found that
their adult male participants could not exercise voluntary control over the effect
of sexual stimuli on their eyeblink startle response. The method has yet to be tried
with sexual offenders, but these results suggest that it has considerable potential.

THE WAY AHEAD

Do the methods described in this book represent the new frontier in sexual interest
assessment? We believe that they do, although major refinement and establishment
of reliability and validity remain the important tasks for the future. The major
features that we find attractive about these approaches are that they are:

• Entirely portable and useable in any setting,
• Relatively inexpensive,
• Easy to implement,
• Not labour-intensive,
• Easy to score and interpret,
INTRODUCTION

- Not physically intrusive,
- Relatively hard to fake,
- Potentially useable with males and females of any age, and importantly,
- Completely open to psychometric evaluation.

For decades, the cognitive psychology literature has been testing these and other procedures that meet the above criteria.

WHO WILL FIND THIS BOOK USEFUL?

Researchers may find it a useful resource as it brings together in one place, material that they will otherwise have to search diverse journals for. Additionally, contributors have been careful to highlight limitations of methods and gaps in knowledge. These provide the foundations for further research and development projects, especially for those concerned with better grounding applied psychological practice in academic knowledge. University teachers concerned with training forensic psychologists and clinical psychologists with a forensic specialization may find this book a useful resource in relation to the assessment of sexual offenders. Professionals from a variety of disciplines (e.g. psychologists, psychiatrists, clinical social workers) who are concerned with evaluating sexual offenders either for the courts, as part of offender management or as part of treatment, may find it of value to study the assessment methodologies described in this book, either so they can take make better use of these methods themselves, or so they can understand and critically appreciate evaluations done by others.
Chapter 1

PENILE PLETHYSMOGRAPHY: STRENGTHS, LIMITATIONS, INNOVATIONS¹

D. RICHARD LAWS
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STRENGTHS

Penile Plethysmography as Technology

Dorland’s Illustrated Medical Dictionary (1994) defines plethysmography as ‘the recording of the changes in the size of a [body] part as modified by the circulation of the blood in it’ (p. 1306). This is done by measuring electrical impedance, ‘a technique for detecting blood volume changes in a part by measuring changes in electrical resistance’. Impedance changes are detected by a strain gauge, ‘a technique for detecting blood volume changes in ... circumference employing a rubber tube filled with a conductive liquid; as the tube expands and contracts, the resistance in the fluid changes in proportion to the circumference’. A plethysmograph is ‘an instrument for determining and registering variations in the volume of an organ’ (Dorland’s Illustrated Medical Dictionary, 1994, p. 1306, passim).

In medicine, plethysmography is primarily used for ‘measuring changes in body volume, used especially in measuring pulmonary ventilation’ as well as for ‘measuring blood volume taking place in a single finger’ (Dorland’s Illustrated Medical Dictionary, 1994, p. 1306). This description shows that it is a small step from measuring blood volume in a single finger to measuring circumferential change in a penis. This impressive definition lends an aura of scientific respectability to penile plethysmography.

There are two general methods for measuring changes in penis size. The first, called the volumetric method, was developed by Freund in the former


Czechoslovakia. This method encloses the penis in a glass tube and measures changes in air volume in the tube as the penis expands and contracts (Freund, Sedlacek and Knob, 1965). Although this approach is highly sensitive and favoured by a small coterie of researchers, it has never seen wide use due to its expense and cumbersome nature.

The second approach, called the circumferential method, is virtually identical to the medical definition given above. A loop of silicone rubber tubing is filled with mercury or indium–gallium and plugged with electrodes attached to electronic circuitry that passes a weak current through the mercury (Bancroft, Jones and Pullan, 1966). This is called the mercury gauge. The transducer loop is fitted over the shaft of the penis. In a state of flaccidity, the resistance in the circuit is zeroed. Following this, any expansion of the penis will thin out the column of mercury and increase electrical resistance. These resistance changes are typically read out as a real-time tracing of the response. An alternative device (the Barlow gauge) was developed by Barlow, Becker, Leitenberg and Agras (1970). This method employs a mechanical strain gauge attached to the flat top of a thin band of surgical steel which is shaped like a ring and open on the lower side. It is placed on the penile shaft in the same way as the mercury transducer. When the penis expands, the strain gauge is slightly bent, which increases the resistance and permits the same kind of reading as the mercury gauge. The function of the two gauges is quite similar (Laws, 1977).

These are respectable scientific methods. If used properly, they should produce reliable and valid data. The manufacturers of penile plethysmographs provide extensive instructions for the use of their equipment. Some treatment centres such as Sand Ridge Secure Treatment Center in Wisconsin and HM Prison Service in the United Kingdom have developed highly detailed protocols for implementation and scoring of the procedure, but this is not typical. It is well recognized by researchers in the field that PGG equipment and procedures are often used in highly idiosyncratic ways, likely without continuous reference to user manuals. Despite these shortcomings, there resides a considerable confidence in this technology. ‘Machines don’t lie’, one of the author’s assistants once said. Since we know that penile plethysmography (PPG) evaluations can differ wildly from site to site, it matters little whether machines lie or not.

PPG as Procedure

Although PPG has the potential to be creatively used in a variety of ways, there are two typical procedures that have developed over the years.

Age and gender assessment

In this procedure, still images of males and females of various ages are presented to the client. There are typically five or six age categories with two to four exemplars per category. The images are presented for a predetermined period of time, usually 2 minutes. The client is instructed to allow himself to become sexually aroused if he finds the image sexually attractive. The resulting erection response values are
scored as millimetres off baseline, percentage of full erection, some kind of deviance index or transformed to ipsative z-scores. Means are computed for each category and the resulting scores per category are used to determine sexual interest by age and gender. This procedure has proven most useful with extrafamilial child molesters.

**Sexual activity assessment**

In this procedure, scenarios are constructed that describe various forms of consenting and non-consenting sexual activities and recorded on tape or CD. These can be constructed by the client but most often are prepared in a standard set by the researcher/clinician. The scenarios are usually 2–3 minutes in length. As with the age/gender assessment, the client is instructed to allow himself to become sexually aroused if he finds the script to be sexually attractive. This procedure is most often used with child molesters and rapists. The scripts contain different content to reflect the supposed sexual interest of these two groups.

The two procedures are directed primarily at child molesters and rapists because they make up the majority of clients assessed. Incest offenders are frequently exposed to the age/gender assessments but tend to respond like non-offenders. Specially prepared assessments using recorded scripts are sometimes prepared to evaluate clients such as exhibitionists, voyeurs or frotteurs.

**PPG as Art**

PPG is, in a sense, an art because there are essentially no universally agreed-upon standards for performing the procedure. For example, Howes (1995) conducted a survey of 48 plethysmographic assessment centres in 25 US states and 6 Canadian provinces. He was concerned that

> although the technical adequacy of plethysmographic assessment is the subject of some disagreement, and validity studies are not entirely convincing, plethysmography had nonetheless been accepted as both a reasonably precise quantification of sexual arousal . . . and a diagnostic instrument about which there is every reason to be optimistic. . . . Perhaps the most substantial criticism of this procedure . . . is its apparent lack of standardization. (p. 14)

The agencies responding to Howes’s questionnaire reported being in the plethysmographic testing business for an average of 5.5 years ($R = 6$ mo – 25 yr). Technicians performing the assessments reported an average of 3.4 years of experience ($R = 6$ mo – 25 yr). Forty-two per cent of the technicians had been doing the assessments for 2 years or less. Formal training in the procedure was 1 week or less for 76% of the technicians, and 18% had received no training at all. Admittedly, the extent to which Howes’s sample of 48 is representative of North American practice is unknown. The data he reported are appalling. The author’s several decades of experience with the procedure and with a variety of assessment centres suggest to me that he is right.
O’Donohue and Letourneau (1992) also noted that ‘there does not appear to be a standardized penile tumescence assessment, but rather there is a family of procedures which share some common aims and features’ (p. 126). They listed the following potential sources of procedural variation. These referred to the assessment of child molesters but would apply equally well to other offender groups:

1. Type of strain gauge used (mechanical, mercury) and transducer placement.
2. Type of stimuli used (audio recordings, slides, videotapes).
3. Content of stimuli used (differences in models).
4. Duration of stimulus presentation (2 s to >4 min).
5. Length of interstimulus (detumescence) interval (fixed time vs. return to baseline).
6. Nature of stimulus categories sampled (Tanner criteria vs. age scales).
7. Number of categories and of stimuli used for each category.
8. Instructions to subjects (imagine sexual behaviour with target vs. no instructions).
9. Whether a warm-up was used and number of assessment sessions.
10. Type of recording instrumentation used (computer-generated graphs vs. strip chart recorder).
11. Whether strain gauge calibration was used to correct for any non-linear characteristics of recording.
12. Data sampling rate (every 5 s vs. every 1 min).
13. Whether methods were used to assess for faking.
14. Gender and other characteristics of the evaluator.
15. Type of data transformation (z-score vs. deviance index).
16. Characteristics of the laboratory (degree of privacy).
17. Type of sample and setting (outpatient, prison).

These appear to be a formidable set of requirements but actually they are not. They are exactly the problems that one encounters every day in performing these assessments. Over the years, the author has visited many assessment centres and spoken to the persons in charge. He has stressed the absolute necessity of standardization to them. He has routinely received responses such as, ‘We’ve always done it this way’, or ‘We do what works for us’, or ‘We’ve tested hundreds of people using this method. Why should we change?’ For 8 years, first as president and then as a member of the Executive Board of the Association for the Treatment of Sexual Abusers (ATSA), the largest umbrella organization in the world for workers in this field, the author repeatedly stressed the need for proper training in psychophysiological assessment.

However, ATSA made an effort. In their *Practice Standards and Guidelines for Members of the Association for the Treatment of Sexual Abusers* (ATSA, 1997), they included an appendix (pp. 40–43) dealing with the plethysmographic examination. It should be emphasized that this appendix is not intended as a training manual. It is simply a set of recommendations and guidelines. It includes, in part, (a) requirements for training, (b) appropriate client groups, (c) screening of clients, (d) informed consent, (e) appropriate stimulus sets, (f) legislation regarding use of erotic stimuli, (g) stimulus material, visual and audio, (h) documentation of assessment data and