

**Psychological and Psychophysiological Examination of the Sex offence Process**

**Utilising a Guided Imagery Methodology**

**Volume I**

by

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## CHAPTER ONE: INTRODUCTION AND OVERVIEW

### 1.1 Introduction

There are a number of common misconceptions about sex offenders including the view that sex offenders are all the same and that they will inevitably re-offend (Fedoroff & Moran, 1997; Lievore, 2004; Quinn, Forsyth, & Mullen-Quinn, 2004; Sample & Bray, 2003; Turner & Rubin, 2002). In contrast to these misconceptions of homogeneity, researchers commonly acknowledge that sex offenders are an extremely diverse population (Canter, Hughes, & Kirby, 1998; Cohen & Galyner, 2002; Fillion, 2003; Fisher & Mair, 1998; Hudson, Ward, & Laws, 2000; Looman, Gauthier, & Boer, 2001; Marshall, 1997; O'Shaughnessy, 2002; Polaschek, 2003a; Veneziano & Veneziano, 2002). Sex offenders vary considerably with regard to personal background, criminal history, offence behaviour, treatment need and risk for sexual recidivism (Canter et al., 1998; Craissati & Beech, 2004; Grubin, 1998; Hanson & Bussière, 1998; Smallbone & Wortley, 2004a, 2004b). Therefore, any generalised statements regarding the nature of sex offenders or sex offending are overly simplistic.

### 1.2 Scope and Definitional Issues

The terms 'sex offence' and 'sex offender' are particularly broad terms that encapsulate a diverse range of acts. Thus, it is necessary to define specifically the types of 'sex offence' and 'sex offender' that are the focus of this research.

#### *1.2.1 Sex Offence Categories*

It is conceptually useful to distinguish between sex offences that are 'non-violent' or 'commercialised' and those that are 'violent'. Sex offences that are

considered ‘non-violent’ typically include voyeurism and indecency offences whereas commercialised sexual offences typically involve prostitution and pornography (Langan, Schmitt, & Durose, 2003). In contrast, the term ‘violent sex offences’ encompasses offences in which a person either used or threatened force in the commission of a sexual act or otherwise engaged in sexual contact with a person who was unable to give consent (Langan et al., 2003). Therefore, the term ‘violent’ need not imply that overtly physical violence has taken place. The focus of this research is on violent sex offences and violent sex offenders, that is, acts and individuals engaging in acts that involve sexual contact with unwilling persons or persons unable to freely consent to such acts.

### *1.2.2 Acts Involved in Offences Classified as Violent*

Australian researchers have commonly used the more specific term sexual assault to refer to the types of acts included under the broader term of violent sex offences (Lievore, 2004). It has been noted elsewhere that definitions of sexual assault vary considerably at both international and national levels with considerable diversity in definitions evident even between different jurisdictions within Australia (Australian Bureau of Statistics, ABS, 2004). Nonetheless, a useful offence-based definition of sexual assault is ‘a physical assault of a sexual nature directed towards another person without their consent’ (ABS, 2004, p.9). The types of acts included under this definition may range from unwanted touching to forced sexual penetration of a person’s vagina, anus or mouth (ABS, 2004).

This definition of sexual assault encapsulates acts as well as attempted acts where a person either did not or was unable to freely agree. A person may legally be considered unable to freely agree when they have been threatened or made fearful, are either temporarily or permanently incapacitated, have mistaken beliefs regarding

the identity of the other person or the nature of the sexual act, are related to or have placed their trust in the other person, or else are young (ABS, 2004).

### *1.2.3 Types of Violent Sex Offenders*

As the preceding discussion has implied, the term violent sex offender is relatively broad, as the types of offenders encompassed by this label are diverse. Researchers and practitioners alike have developed various typologies to account for the heterogeneity of sex offenders (Heil, Ahlmeyer, & Simons, 2003). Typically, the broadest and most commonly used typology is that of rapists and child molesters (Lievore, 2004; Looman et al., 2001; Porter, Campbell, Woodworth, & Birt, 2001). The term rapist is used to refer to a person who has committed a sexual offence against an adult whereas the terms child molester and child sex offender refer to a person who has committed a sexual offence involving a child (Lievore, 2004; Looman et al., 2001).

The specific focus of this research is child sex offenders and child sex offending. Regardless of whether force or threat was used in the commission of the offence, the term child sex offender refers to a person who has engaged in sexual contact with another person who was defined by jurisdictional law to be too young to freely consent. Although the age for consent to sex is typically set at 16 years in most Australian jurisdictions including Victoria (Victorian Law Reform Commission, 2001), Queensland (Criminal Law Amendment Act, 1997, retrieved June 01, 2006, from <http://www.legislation.qld.gov.au/OQPChome.htm>), Western Australia (Acts Amendment [Sexual Offences] Act 1992, retrieved June 01, 2006, from <http://www.slp.wa.gov.au/statutes/swans.nsf>), the Northern Territory (Criminal Code Act, retrieved August 15, 2006, from <http://www.nt.gov.au/dcm/legislation/>

current.shtml) and the Australian Capital Territory (ACT Law Reform Commission, 2001), the age for consent in Tasmania is 17 years (Criminal Code ACT, 1924, retrieved May 31, 2006, from <http://www.thelaw.tas.gov.au/index.w3p>). Therefore, the term child sex offender may equally apply to offenders with child victims as young as infants and as old as 16 years.

### 1.3 Definition of the Problem

This research will aim to address two broad issues that have emerged in the body of literature pertaining to child sex offenders. The first emergent issue is the need to develop typologies of child sex offenders that accommodate their diversity in treatment and management requirements. A second issue that has become evident is the need for an integration of theory and research in order to better understand and address the diversity observed in child sex offenders.

#### *1.3.1 Understanding Diversity of Needs in Child Sex Offenders*

As the preceding discussion indicated, there is considerable diversity even within child sex offenders as a subtype of those who commit sex offences. Research has indicated that child sex offenders differ considerably in treatment needs (Bickley & Beech, 2001; Sperber, 2004) as well as risk for sexual recidivism (Fillion, 2003). To address the diversity in treatment and management needs of child sex offenders, further research is required to establish different groupings or subtypes. It is practically pertinent to establish the treatment needs of subtypes of child sex offenders as well as their risk for recidivism, as this would allow for more effective use of treatment resources, as more intensive treatment could be used with those considered to be at a high risk of sexual re-offending (Howard & Caslin, 1999;

Marshall, 1999). The research to be presented in the following chapters will focus primarily on recidivism associated with subtypes of child sex offenders.

### *1.3.2 Incorporating Theory and Research*

A particular difficulty with examining the risk management needs of subtypes of offenders is that approaches to risk assessment have been predominantly informed by empirical research and, thus, have lacked a theoretical basis (e.g., Bickley & Beech, 2001; Craig, Browne, & Stringer, 2003; Craig, Browne, Stringer, & Beech, 2004; Roberts, Doren, & Thornton, 2002). Although there have been recent advances in identifying dynamic variables that are predictive of long-term sexual recidivism (e.g., Beech, 1998; Beech, Friendship, Erikson, & Hanson, 2002; Hanson & Harris, 1998, 2000a), the practical and theoretical meaning of such variables is typically unclear.

On the other hand, there have been a number of recent advances in understanding the mechanisms and processes involved in sex offending. Most notably, theory-driven models of different pathways to sex offending have been developed (e.g., Ward & Hudson, 1998a, 2000a) that aid in understanding offending mechanisms and offer practical implications for treating and managing sex offenders (Bickley & Beech, 2001). However, these theoretical advancements so far have not been incorporated into risk assessment approaches, as there is no reliable guiding framework for incorporating such information (Beech & Ward, 2004).

To this end, researchers have recently proposed a theoretical framework for risk assessment of sex offenders that aids the understanding of empirically generated variables that are predictive of sexual recidivism (Beech & Ward, 2004; Ward & Beech, 2004). It is anticipated that such theoretically guided approaches to risk assessment will result in further advancements in both the understanding of causal

and maintaining factors in sex offending as well as methods for predicting sexual re-offending (Beech & Ward, 2004; Ward & Beech, 2004).

#### 1.4 Overview of thesis

As has been noted, child sex offenders are a diverse population of offenders. Chapter Two will explore the merits and limitations of a number of existing typologies that attempt to accommodate the heterogeneity of child sex offenders. In particular, Chapter Two will present the empirical support for these typologies and discuss their practical usefulness in terms of furthering an understanding of the causal processes of offending and the treatment needs of offenders.

In Chapter Two it will be argued that many of the child sex offender typologies do not provide direction for offender management and interventions as they typically lack a theoretical basis (e.g., see Bickley & Beech, 2001). Consequently, the usefulness of theoretical approaches to classification will be advocated with particular emphasis on recently derived offence process models of pathways to sex offending (e.g., Ward & Hudson, 1998a, 2000a). However, it will be noted that there has been limited independent empirical evaluation of such approaches. Therefore, Chapter Two will propose that further research exploring the validity of offence-process based classification systems is needed.

Chapter Three will note the rise of process oriented approaches to understanding sex offending and will discuss the evidence to support multiple offence process pathways to sex offending. Chapter Three will then proceed to detail the various pathways to sex offending described by the Self-Regulation model (Ward & Hudson, 1998a, 2000a). The Self-Regulation model categorises sex offenders into four predominant pathways to offending based on the goal they possess with regard to deviant sex (approach/acquisitional or avoidance/inhibitory) and the selection of

strategies designed to achieve that goal (active/explicit or passive/implicit) (Ward & Hudson, 1998a, 2000a). These four pathways are comprised of different combinations of affective, cognitive, motivational and contextual factors that unfold over nine sequential phases.

It will be argued that these offence process models, and particularly the Self-Regulation model, offer a number of benefits as they are able to address questions such as how and why individual sex offenders may sexually re-offend. However, it will also be noted that many of the underlying assumptions of the Self-Regulation model have not been empirically verified and it has not been considered whether the processes occurring during sex offending may be considered deviant or unique.

Chapter Four will detail the need for and advantages of firstly establishing whether the processes occurring during sex offending are deviant. It will be argued that offence process models have not explored possible parallels or differences between processes occurring during both ‘normal’ consensual and illegal/deviant sexual encounters. It will be contended that such information will aid interpretations and understanding of the processes occurring during sex offending.

To establish whether the processes occurring during sex offending are deviant and unique, a guided imagery methodology will be introduced as a methodology adept at exploring processes occurring during events of interest (Haines, Williams, Brain, & Wilson, 1995). A guided imagery methodology examines the psychological and psychophysiological responses of individuals to personal recollections of events of interest. The advantage of taking concurrent measures of psychological and psychophysiological responses is that the meaning of any given psychophysiological response may be interpreted. Chapter Four will provide a detailed discussion regarding objective psychophysiological measures of sexual arousal, affective and cognitive processes, and will discuss how a guided imagery



may reliably employ such measures to investigate and compare the processes occurring during sex offending and legally consensual sexual experiences. It will be suggested that a guided imagery methodology offers a number of advantages including a more objective examination of processes as well as a broader examination of problematic behaviours.

Following this discussion, Chapter Four will present Study One, which will compare the psychological and psychophysiological processes occurring during both child sex offending and adult consensual sexual encounters using a guided imagery methodology. The processes occurring during these events will be examined in both a sample of 12 incarcerated or previously incarcerated child sex offenders and a control sample of 12 non-offending males.

Study One will highlight the similarity between Offenders and Controls in response profiles to adult consensual sexual encounters. It will be shown that both groups demonstrate an inverted, U-shaped pattern of response to the consensual sex script in which respiration rate and positive affect gradually increase and peak during the height of sexual activity before subsequently reducing to baseline levels. In contrast, it will be shown that Offenders demonstrate a pattern of early onset in arousal, as indexed by respiration rate, to child sex offending that is indicative of anticipation and is followed by moderate levels of negative affect in the aftermath. However, given the possibility that this small sample of child sex offenders ( $N=12$ ) may not be representative of larger samples of child sex offenders, the interpretations of these findings are limited to describing the nature of peri-offence processes in the current sample. Furthermore, it will be noted that descriptions of psychophysiological processes are limited in that they are based solely on respiration rate due to the fact that there were no significant interactions or main effects for the other psychophysiological indices measured (i.e., heart rate and skin conductance).

Nonetheless, it will be concluded that the pattern of response to child sex offending demonstrated by the majority of the present sample of child sex offenders is indicative of processes that are unique and deviant.

Chapter Five will aim to explore and test a number of underlying assumptions of the Self-Regulation offence process model (Ward & Hudson, 1998a, 2000a) using a guided imagery methodology. It will be argued that the model has a number of assumptions pertaining to the timing and pertinence of various psychological processes for the different pathways to sex offending. It will be suggested that a guided imagery methodology may be used to test these assumptions independently and objectively.

Chapter Five will then present Study Two which compares the psychological and psychophysiological processes occurring in response to child sex offending and adult consensual sexual encounters in the present sample of 12 child offenders classified as having either Approach or Avoidant goals and Active or Passive strategies. It will be shown that many of the assumptions of the Self-Regulation model were either not supported or received mixed support from this independent guided imagery examination. However, caution will be exercised in interpreting the results for Study Two given the sample is considerably small ( $N=12$ ) and, hence, may not be representative of larger samples of child sex offenders. Chapter Five will conclude that the unexpected findings offer a number of implications for treatment and risk that require further exploration.

The treatment implications of the Self-Regulation offence process model (Ward & Hudson, 1998a, 2000a) will be explored in consecutive studies to be presented in Chapter Six. However, consistent with Chapter Four, it will be argued that proposed differences between pathway offenders could be more meaningfully interpreted if there was a 'normal' or control point of comparison. Thus, Chapter Six

will firstly present Study Three, which compares the level of psychological symptomatology, cognitive distortion and dysfunctional coping strategies of child sex offenders and non-offending controls. The results of this comparison will largely support the expectation that the present sample of child sex offenders, as a group, demonstrate higher psychological symptomatology, psychopathy, dysfunctional coping strategies and cognitive distortions than do the present sample of non-offending controls.

Study Four will compare the degree of deficits, commonly targeted in sex offender treatment, in the present sample of Approach-Avoidant goal and Active-Passive strategy offenders. Inconsistent with expectations based on previous research (e.g., Bickley & Beech, 2002, 2003), the results will indicate that, in the present sample, Avoidant-goal and Active-strategy pathway offenders present with greater treatment needs. Furthermore, the results will indicate that these offenders also demonstrate traits indicative of a higher likelihood for sexual recidivism.

To aid comprehension of the implications for risk need identified in preceding chapters, Chapter Seven will discuss the major approaches to risk assessment of sex offenders. Firstly, the clinical and actuarial approaches to risk prediction will be explored. It will be contended that evidence largely supports the superiority of actuarial approaches. Secondly, various actuarial tests and instruments specifically designed to predict sexual recidivism will be reviewed. It will be argued that, whereas actuarial tests and instruments are superior in predicting recidivism, these approaches to risk prediction are unable to address issues of change, as the variables measured are predominantly static.

Thirdly, a number of dynamic variables that are amenable to change and predictive of sexual recidivism will be discussed. Chapter Seven will provide a separate discussion of the predictive validity of relatively stable dynamic variables

(such as distorted beliefs or deviant sexual interests) and acute dynamic variables (such as intoxication and affective state). It will be suggested that the empirical research as a whole has supported the notion that certain stable dynamic variables are predictive of sexual recidivism, whereas, acute dynamic variables are indicative only of transient changes in risk level (Bonta, 2002; Hanson, 2000; Hanson & Harris, 1998). Furthermore, given evidence that stable dynamic variables have additive effects, beyond those of static factors, on predicting sexual recidivism (e.g., Roberts et al., 2002; Thornton, 2002), it will be argued that risk assessments should incorporate information pertaining to dynamic variables.

Chapter Eight will contend that research pertaining to whether behavioural and psychological offence variables may predict sexual recidivism is inconclusive. Due to the possible benefits of incorporating theory-guided dynamic variables in risk prediction, Chapter Eight aims to explore the risk implications of the offence pathways detailed by the Self-Regulation model (Ward & Hudson, 1998a, 2000a). It will be argued that there are a number of untested expectations with regard to differences in recidivism risk between the various pathways to sex offending.

Using a standard actuarial instrument, Study Five will indicate that there are meaningful, albeit non-statistically significant, differences in long-term recidivism risk between Approach and Avoidant goal as well as Active and Passive strategy offenders in the present sample. In particular, the results will indicate that Avoidant and Active offenders in the present sample are at a greater estimated risk for sexual recidivism. However, in concluding Chapter Eight, it will be acknowledged that the mechanisms causing these offenders to be at an elevated risk for recidivism are unclear. The following chapters will then detail research that examines the mechanisms behind these differences in recidivism risk. Specifically, the following chapters will use the aetiological model of risk (Beech & Ward, 2004; Ward &

Beech, 2004) as a guiding framework for explaining the basis for the estimated elevated risk of Avoidant-goal and Active-strategy offenders.

Chapter Nine will determine whether psychological and psychophysiological offence processes may be directly indicative of long-term sexual recidivism risk. However, it will be stated that empirical research has largely indicated that acute dynamic variables are not indicative of long-term sexual recidivism risk (e.g., Hanson & Bussière, 1998). Study Six will show that sexual offenders classified as high or low risk using an established actuarial measure do not vary in their patterns of psychophysiological and psychological response. However, given there were considerable limitations in sample size and statistical power in this study, it will be tentatively concluded that offence process variables do not differ between offenders in the present sample categorised on the basis of their estimated risk for sexual recidivism.

Chapter Ten will then examine whether stable dynamic variables predictive of recidivism, such as psychopathy and sexual deviance, result in differences in the pattern of psychological and psychophysiological processes occurring during child sex offending. It will be argued that risk assessment of a sexual offender must take into consideration relevant psychological disorders, such as, psychopathy and paedophilia, which are logically expected to influence psychophysiological responses. However, the results of Study Seven will show that offenders in the present sample categorised as high or low on these traits do not differ in responses to child sex offending. It will be concluded that, given the possibility that the null findings observed in the present and preceding study may be indicative of methodological issues (i.e., low statistical power); the basis for the higher estimated risk of recidivism in the present sample of Avoidant and Active strategy offenders is unclear.

Finally, Chapter Eleven will discuss the utility of the recently proposed theoretical framework to risk assessment (Beech & Ward, 2004; Ward & Beech, 2004). It will be suggested that this theoretical framework may be used to guide meaningful incorporation of offence-process models (Ward & Hudson, 1998a, 2000a) in risk assessment. It will be proposed that the offence process pathways provide information pertaining to both stable dynamic variables predictive of risk and acute dynamic variables that may signal the imminence of relapse.

In recommending future research directions, it will be contended that further research is necessary to establish the legitimacy of incorporating information pertaining to offence-process variables in risk assessment. Given the possibility that the present sample of child sex offenders may have been more sexually deviant and higher in psychological symptomatology when compared with previous samples, it will be suggested that independent replication studies utilising larger samples of child sex offenders are needed. Furthermore, it will be recommended that similar investigations be extended to other types of sex offenders, such as rapists, to determine whether the conclusions reached from the present research can be generalised to other offender groups.

## CHAPTER 2: CHILD SEX OFFENDER TYPOLOGIES

### 2.1 Definitional/Conceptual Issues

Child sexual assault may be defined as any situation in which ‘... an adult or someone in a position of trust or power uses the position to emotionally manipulate, coerce through threat or inducement, or use physical force to involve the child in sexual activity’ (Wallis, 1995, p.1). The types of sexual acts encapsulated by this definition range from non-contact sexual acts, such as exhibitionism, to sexual acts, such as penetration, where contact with the victim occurs (Wallis, 1995). However, research has consistently indicated that acts of penetration such as sexual intercourse are not as frequent as are acts involving fondling or non-penetrative genital contact (Cohen & Galynker, 2002).

The terms child sex offender and child molester are typically used to refer to any person who has engaged in sexual activity with a child regardless of their sexual preference (Barbaree & Seto, 1997; Cohen & Galynker, 2002). However, some researchers make an even finer grained distinction between child molesters and child sex offenders, claiming that the term child molester may be used irrespective of the legal status of the act committed whereas child sex offender is a legal term that refers to any person convicted of sexually abusing a child (Cohen & Galynker, 2002).

It may be argued that this distinction between child molesters and child sex offenders is somewhat redundant. Although there are certainly adults who engage in sexual activity with children in societies where such behaviour is permissible (e.g., see Green, 2002), these adults are not labelled as child sex offenders nor child molesters. The terms child sex offender and child molester are used to refer to any adult who has engaged in sexual activity with a child in a jurisdiction where such behaviour is prohibited. Any adult who has engaged in behaviour that is legally

prohibited has committed a criminal offence irrespective of whether they are convicted. Therefore, the so-called legal term child sex offender will be used in favour of the term child molester.

There are further conceptual difficulties with the interchangeable use of the terms child molester, child sex offender and paedophile (Barbaree & Seto, 1997; Edwards, 1997; Marshall, 1997). It is highly contentious as to whether all child sex offenders prefer sexual contact with children thereby warranting the label of paedophile (e.g., Cohen & Galynker, 2002; Edwards, 1997; O'Donohue, Regev, & Hagstrom, 2000; Seto, 2004). Defined briefly, paedophilia refers to a mental disorder in which an older adolescent or adult has recurring and intense fantasies, urges or behaviours involving sexual contact with children who have not yet reached puberty (American Psychiatric Association [APA], 2000). It has been noted that between 60 to 75 percent of child sex offenders do not present with fantasies and urges that would warrant a diagnosis of paedophilia (Marshall, 1997). Clearly then, it is misleading to use terms such as child sex offender and paedophile interchangeably.

In agreement with prominent researchers in the sex offender literature (e.g., Marshall, 1997), the term child sex offender will be used to refer to any person, irrespective of sexual preference, who has involved children in sexual activity, provided they were not a child themselves engaging in non-coercive sexual behaviour. However, in contrast to Marshall (1997), the term child sex offender will be used instead of the term child molester, as the term child sex offender more appropriately denotes a person who has engaged in behaviour that constitutes a criminal offence. Moreover, the focus will be on male child sex offenders as official data have indicated that child sex offending is mainly perpetrated by males (Cohen & Galynker, 2002; Marshall, 1997).



Difficulties and inconsistencies in defining child sex offenders are largely a reflection of the commonly observed heterogeneity of sex offenders (e.g., Canter et al., 1998; Cohen & Galynker, 2002; Fillion, 2003; Fisher & Mair, 1998; Hudson et al., 2000; Looman et al., 2001; Marshall, 1997; O'Shaughnessy, 2002; Polaschek, 2003a; Veneziano & Veneziano, 2002). Child sex offenders, even as a subgroup of sex offenders, have been found to be extremely diverse on a number of aspects including personal characteristics, life experiences, criminal histories, motives for offending and patterns of offending behaviour (Canter et al., 1998; Grubin, 1998; Marshall, 1997; Prentky, 1999; Prentky, Knight, & Lee, 2006).

It has been argued that the diversity observed in child sex offenders has implications for both the efficacy of risk prediction (Fillion, 2003) as well as treatment (Bickley & Beech, 2001; Sperber, 2004). Given that child sex offenders vary widely in terms of personal characteristics, life experiences and criminal histories, it is logical to expect that the treatment needs and level of risk of an offender would vary based on their personal characteristics. Clearly then, systems for categorisation that accommodate the heterogeneity of child sex offenders are needed so that sex offender assessments and interventions may be optimally effective.

## 2.2 Typologies of Child Sex Offenders

In an attempt to better understand and accommodate the heterogeneity observed in sex offenders, many researchers have sought to develop typologies of sex offenders (Looman et al., 2001). Bickley and Beech (2001) as well as other researchers (e.g., Polaschek, 2003a) have proposed that the methods employed in the classification of child sex offenders can be broadly divided into one of four approaches based on an offender classification framework suggested by Blackburn

(1993). Broadly speaking, Blackburn proposed that there are four main approaches to classification of offenders: clinical descriptions of ideal types; pragmatic clusters of offence-related variables; statistically derived psychometric profiles; and theoretically meaningful types.

### *2.2.1 Clinical Descriptions of Ideal Types*

The clinical descriptions approach to classification outlined by Bickley and Beech (2001) requires clinician expertise and experience to establish common groupings of sex offenders. There are two means by which clinical descriptions of types may be derived, namely, psychiatric diagnosis and clinician experience.

*Psychiatric diagnosis.* The diagnosis of paedophilia is the most prominent example of using psychiatric diagnosis as a means of deriving clinical types of child sex offenders. To establish a diagnosis of paedophilia, the clinician must determine whether the client fits the diagnostic criteria specified for that psychiatric classification in the Diagnostic and Statistical Manual of Mental Disorders (APA, 2000).

The current version of the DSM, the DSM-IV, Text Revision (APA, 2000) specifies three diagnostic criteria for paedophilia. Criterion A is that the individual, over at least a six month period, has had intense and recurrent fantasies, urges, or behaviours involving sexual activity with a prepubescent child or children. Criterion B specifies that the person must have either acted on or experienced distress or interpersonal difficulty from the symptoms specified in Criterion A. Criterion C stipulates that the individual must be at least 16 years of age and at least five years older than the child/children in Criterion A.

Clearly there are benefits in using psychiatric diagnoses to derive clinical types of sex offenders. The DSM provides clinicians with a set of guidelines derived from best practice, which would enhance the validity and reliability of deriving clinical types. More notably, the diagnosis of paedophilia, through its focus on identifying deviant sexual arousal, is useful in identifying a group of sex offenders with particular treatment and risk management needs. Research has identified sexual interest in children as a key variable addressed in treatment (Marshall & Fernandez, 2003; Quinsey & Earls, 1990) as sexual arousal to children is consistently associated with the likelihood of sexually re-offending (e.g., Hanson & Bussière, 1996, 1998; Hanson & Morton-Bourgon, 2004).

Therefore, this approach to classification acknowledges the pivotal role of arousal processes in sex offending. A central tenet of this thesis is that arousal, particularly peri-offence arousal, is a key variable in both understanding and predicting sexual re-offending.

However, there are a number of limitations of the psychiatric diagnostic approach to classification. It has been strongly contended by some that the DSM criteria for paedophilia have very little relevance or use for treatment (Bickley & Beech, 2001; Polaschek, 2003a). However, this argument is unsubstantiated and, as previously cited, there is evidence to suggest that sexual interest in children is associated with rehabilitative outcomes (e.g., Hanson & Bussière, 1996, 1998; Hanson & Morton-Bourgon, 2004).

A more worthy criticism is that, due to the lack of specificity of the symptoms and terms detailed in Criterion A, clinicians must use their subjective impression to determine whether a given individual possesses the attributes outlined (Bickley & Beech, 2001). Furthermore, in order to establish that the client possesses

the symptoms outlined, the clinician must rely on the accuracy of client reports (Bickley & Beech, 2001; O'Donohue et al., 2000; Polaschek, 2003a).

It has also been argued that the DSM criteria for paedophilia do not address the existence of multiple pathways to offending differentiated on the basis of theorised psychological processes (e.g., Ward & Hudson, 1998a, 2000a) that may take place during offending (Bickley & Beech, 2001; Polaschek, 2003a). This latter criticism may equally be applied to the majority of the approaches to classification to be reviewed.

*Clinical experience.* As outlined previously, clinical experience may also be used to develop descriptions of ideal types. A common exemplar of using clinical experience to derive ideal types of child sex offenders is the fixated versus regressed distinction. The terms and descriptions used to refer to these two subgroups of child sex offenders have differed considerably and include fixated-regressed as well as preferential/situational and paedophilic/incestuous (Danni & Hampe, 2000; Salter, 1988). Nevertheless, a broadly accepted description of these types is that fixated offenders are primarily sexually interested in children whereas regressed offenders have adult heterosexual interests but may depart from their sexual preference under times of stress or rejection (Cohen, Seghorn, & Calmas, 1969; Groth, Hobson, & Gary, 1982).

By the very nature of the clinical experience approach, support for the fixated-regressed typology is primarily derived from extensive clinical experience and observation (Groth et al., 1982). Nevertheless, there are some direct empirical findings that support the criteria used to define fixated and regressed child sex offenders. For instance, one study (Johnston & Johnston, 1997) compared fixated and regressed offenders on an instrument measuring cognitions, attitudes and background characteristics. Findings indicated that regressed offenders were better

adjusted and more likely targeted unrelated female victims and they were more likely to have substance abuse problems. Fixated offenders tended to come from broken homes, were more child-centred and targeted unrelated male victims (Johnston & Johnston, 1997). Research also demonstrated that there were important differences between fixated and regressed offenders with regard to personality variables, whereby fixated offenders demonstrated greater neuroticism (Gingrich & Campbell, 1995).

Indirect evidence supporting the utility of the fixated-regressed typology has suggested that fixated sex offenders are at a greater risk for sexual recidivism. A defining characteristic of fixated offenders is sexual interest in children (e.g., Groth et al., 1982), and, as noted previously, sexual arousal to children is predictive of sexual recidivism (Hanson & Bussière, 1996, 1998; Hanson & Morton-Bourgon, 2004). Through identifying deviant sexual interest in children as a discriminating classification variable, the clinical experience approach offers practical implications for the management of offenders. Thus, similar to the psychiatric diagnostic approach, the clinical experience approach to classification suggests that arousal plays a central and motivational role in sex offending.

Moreover, fixated offenders are characterised by socio-affective deficits, such as emotional identification with children (Groth et al., 1982), which are associated with sexual re-offending (e.g., Beech et al., 2002). However, research has suggested that social deficits vary independently of level of fixation, indicating that certain fixated child sex offenders may be quite socially competent (Knight, Carter, & Prentky, 1989; Knight & Prentky, 1990; Prentky, 1999). Indeed, in their sociometric study of child sex offenders, Cohen and colleagues (1969) found that the fixated offenders demonstrated greater social adaptability than was expected based on clinical observations.

Therefore, there is considerable intuitive appeal and indirect support for the fixated-regressed distinction. Fixated offenders present as a group of offenders who have greater psychological deficits and pose a greater risk for sexual recidivism. However, there is considerable overlap between fixated and regressed sex offenders (Salter, 1988).

As a result of such overlap, evidence has suggested that pure/ideal classes of fixated and regressed child sex offenders are uncommon (Knight, 1992; Knight & Prentky, 1990; Simon, Sales, Kaszniak, & Kahn, 1992). Researchers have found that the fixated-regressed dichotomy is more accurately represented by a continuum (Simon et al., 1992). Nevertheless, the fixated-regressed dichotomy has been used to inform more comprehensive and empirically-generated typologies of child sex offenders such as the Massachusetts Treatment Center Child Molester Typology (Knight et al., 1989; Knight & Prentky, 1990).

*Summary of clinical descriptions approach.* An advantage of the clinical descriptions approach over some of the more empirically derived approaches to be discussed is that the types of offenders derived are practically meaningful. Clearly, the clinical descriptions approach has offered descriptions of types of offenders who would be expected to possess a sexual interest in children and, thereby, demonstrate a higher likelihood of sexual recidivism.

However, due to their reliance on clinical and subjective impressions, these approaches produce types of offenders that are too idealised and, as such, few offenders clearly fall into the derived categories (e.g., Marshall, 1997; Salter, 1988). Furthermore, explanations for offending are overly broad and simplified and, thus, are unable to accommodate the heterogeneity observed in psychological processes occurring during sex offending (e.g., Proulx, Perreault, & Ouimet, 1997, 1999; Ward, Louden, Hudson, & Marshall, 1995).

### 2.2.2 Pragmatic Clusters of Offence-related Variables

The pragmatic clusters approach, as conceptualised by Bickley and Beech (2001), differentiates between types of child sex offenders on the basis of either a single variable or a number of variables of interest. Most frequently, child sex offenders are differentiated on the basis of offence-related, victim demographic variables such as the offender's relationship to the victim/s, the sex of the victim/s, and the age of the victim/s (Heil, Ahlmeyer, & Simons, 2003).

*Relationship between offender and victim.* Based on the relationship the child sex offender had with the victim/s, a distinction is typically made between child sex offenders with victims related to them (intra-familial/incestuous child sex offenders) and child sex offenders with victims unrelated to them (extra-familial/non-incestuous/non-familial child sex offenders) (Barbaree & Seto, 1997; Studer, Aylwin, Clelland, Reddon, & Frenzel, 2002). To avoid confusion in using these different labels to refer to the same type of offender, the more commonly used terms incestuous and extra-familial child sex offenders will be used.

Clearly, there is much support for the distinction drawn between incestuous and extra-familial child sex offenders. The DSM-IV TR diagnosis of paedophilia distinguishes between incest-only and other types of paedophilia (APA, 2000). With regard to the practical utility of this classification, it has been consistently found that extra-familial child sex offenders are at a greater risk for sexual recidivism than incestuous offenders (Bartosh, Garby, Lewis, & Gray, 2003; Firestone et al., 1999; Firestone, Bradford, McCoy et al., 2000; Greenberg, Bradford, Firestone, & Curry, 2000; Hanson & Bussière, 1996, 1998; Hanson, Steffy, & Gauthier, 1992; Harris & Hanson, 2004).

This difference in recidivism risk between incestuous and extra-familial offenders may be partially attributable to the deviant levels of sexual arousal

observed in extra-familial offenders. Studies have indicated that extra-familial child sex offenders display comparatively high sexual arousal to children in phallometric recordings whereas controls and incestuous offenders demonstrate low levels of deviant sexual arousal (Barbaree & Marshall, 1989; Fernandez, 2002a; Firestone et al., 1999; Freund, 1967a, 1967b; Marshall, Barbaree, & Christophe, 1986; Quinsey, Chaplin, & Carrigan, 1979; Rice & Harris, 2002). Although the transducers and materials used in these studies have varied, these studies have predominantly used age-gender assessments of sexual arousal to visual slide stimuli measured using circumference phallometry.

Despite the majority of studies indicating that incestuous offenders are low in deviant sexual arousal, there are some findings inconsistent with this predominant view (e.g., see Marshall, 1997). For instance, the results of some studies using audio stimuli, or a combination of audio and visual slide stimuli, have suggested that incestuous offenders demonstrate deviant arousal to erotic child stimuli and cannot be distinguished from extra-familial offenders using phallometry (e.g., Abel, Becker, Murphy, & Flanagan, 1981; Fernandez, 2002a; Studer et al., 2002).

It has recently been tentatively proposed that these inconsistent results may be indicative of differences between studies in erotic stimuli used (Fernandez, 2002a). In particular, it has been proposed that incestuous sex offenders are specifically sexually attracted to children related to them but not to children in general (Fernandez, 2002a; Marshall & Fernandez, 2003). Consistent with this view, research has shown that incestuous child sex offenders demonstrated greater sexual deviance when audio stimuli were used instead of visual slide stimuli (Fernandez, 2002a; Murphy, Haynes, Stalgaitis, & Flanagan, 1986), as audio stimuli supposedly allowed the offenders to imagine their own victims (Fernandez, 2002a).



Therefore, it is plausible to suggest that differences in materials used between studies may account for inconsistencies regarding differences between extra-familial and incestuous child sex offenders. However, explanations for incestuous offenders' differential responses to audio and visual stimuli have yet to be directly supported by evidence. Nevertheless, extra-familial offenders present as a group requiring greater treatment and supervision due to a higher risk for sexual recidivism.

*Victim sex.* With regard to groupings based on victim sex, extra-familial child sex offenders are commonly further divided into heterosexual or homosexual child sex offenders (Barbaree & Seto, 1997). There has been some support for reliability of the sex of victims classification, as the sex of an offender's victims tends to remain stable over time (Guay, Proulx, Cusson, & Ouimet, 2001).

The discriminant validity of victim sex has been illustrated in various studies utilising penile plethysmographic assessments of responses to child stimuli. Responses to various child stimuli have been used to classify child sex offenders according to the sex of their victims and their preferred victim sex (Day, Miner, Sturgeon, & Murphy, 1989; Laws, Hanson, Osborn, & Greenbaum, 2000; Letourneau, 2002).

The predictive validity of victim sex has been highlighted in studies indicating that child sex offenders with a male victim are at a higher risk for sexual reoffending compared to other child sex offenders (Furby, Weinrott, & Blackshaw, 1989; Hanson, 1997; Hanson & Bussière, 1996; Hanson et al., 1992; Hanson & Thornton, 2003; Harris & Hanson, 2004; Seto, Harris, Rice, & Barbaree, 2004). Despite this supportive evidence, some studies have failed to find a difference in recidivism rates between male-victim and female-victim offenders (e.g., Prentky, Knight, & Lee, 1997).

A possible explanation for these discrepant results is that many studies have not controlled for the confounding effects of victim relationship (Bickley & Beech, 2001; Prentky et al., 2006). Unlike Prentky and colleague's (1997) study that focused exclusively on extra-familial offenders, the majority of studies examining the predictive validity of victim sex did not distinguish between extra-familial and intra-familial offenders. Intra-familial offenders are more likely to have female victims than are extra-familial offenders (Prentky et al., 1997). Furthermore, as was discussed in the previous section, research has largely suggested that extra-familial offenders are at a higher risk for sexual recidivism. Therefore, although the research as a whole has suggested that sex of victims is predictive of sexual recidivism, the findings are inconclusive due to the lack of control over the confounding effects of victim relationship.

*Victim age.* A much less common typology of child sex offenders is derived from the age of an extra-familial offender's victim/s. Based on the age of their victims, extra-familial child sex offenders are frequently classed as being either a paedophile or a hebephile (Blanchard & Dickey, 1998; Danni & Hampe, 2000). In this classification system, the term paedophile is used to refer to child sex offenders who have pre-pubertal victims. Extra-familial child sex offenders with primarily pubertal and post-pubertal victims are referred to as hebephiles.

Supportive of the validity of the age of victims approach is evidence suggesting that child sex offenders with younger victims are at a greater risk for sexual recidivism (Seto et al., 2004; Seto & Lalumière, 2001). Furthermore, clinically derived approaches to classification have indicated that sexual interest in pre-pubertal children is a key characteristic with which to classify and identify offenders with particular treatment and management requirements. There are clearly

meaningful differences between those child sex offenders who target pre-pubertal victims and those who target pubertal and post-pubertal victims.

However, the validity of the age of victims approach is questionable due to the instability of such a classification. Research has demonstrated considerable diversity in offender self-report of victim ages with 26.4 percent of one sample of child sex offenders reporting offences involving both children and adolescents (Abel, Becker, Cunningham-Rathner, Mittelman, & Rouleau, 1988). Moreover, research has indicated that sex offenders who target pubertal victims (i.e., hebephiles) are more unstable in the type of victim they select from one offence to another when compared with other sex offenders (Guay et al., 2001). Therefore, although there are some meaningful differences between paedophiles and hebephiles, the instability in offender choice of victim age limits the reliability of this classification scheme.

*Summary of pragmatic clusters approach.* Research has demonstrated that pragmatic clusters of offence-demographic variables can be used to identify offenders who possess characteristics indicative of a greater risk for sexual recidivism. Despite this supportive research, it has been argued that classifying offenders based on offence demographics has limited clinical usefulness for assessing risk of recidivism or identifying treatment need (Beech, 1998; Bickley & Beech, 2001).

A somewhat more balanced analysis of the evidence suggests that whereas offence demographic variables may predict risk, an understanding of how these offence demographic variables theoretically lead to an increased risk for sexual recidivism is lacking. The same offence-demographic variables associated with an increased risk for recidivism are also associated with having deviant sexual interest in children. Therefore, it may be hypothesised that variables such as victim age and sex are indirectly predictive of sexual recidivism.

Despite the demonstrated utility of offence demographic variables in offender classification, the validity of the pragmatic clusters approach is hampered by the many inconsistent results reported. Although the majority of findings are supportive of the validity of victim demographic variables, there are many contradictory findings. It has been suggested that inconsistencies in these results may reflect methodological factors such as criteria used to divide the groups, characteristics of the samples used and small sample sizes (Bickley & Beech, 2001).

In addition to inconsistent results, the validity of using victim demographics to classify offenders is compromised by findings suggesting that a substantial number of sex offenders alternate from one victim type to another (e.g., Abel et al., 1988), a phenomenon termed victim-choice polymorphia (Guay et al., 2001). The variability evidenced in victim type is particularly high when participants are ensured confidentiality and anonymity (Abel et al., 1988; Heil et al., 2003) and/or when polygraph testing is used (Heil et al., 2003). These findings are at odds with the notion of victim type consistency evident in sex offender typologies derived from offence-related variables (Heil et al., 2003).

### *2.2.3 Statistically Derived Psychometric Profiles*

The third approach to classification derives psychometric profiles of types of child sex offenders through the use of multivariate statistical techniques (Bickley & Beech, 2001). It has been argued that more reliable typologies of sex offenders may be derived by statistical cluster analysis of responses to clinical assessment instruments (Schlank, 1995). Psychometric profiles of offender classifications may be obtained by using either a single measure or multiple measures.

*Psychometric profiles using single measures.* The research pertaining to the use of single measures has indicated that measures specifically designed to assess the

psychosexual characteristics of sex offenders, such as the Multiphasic Sex Inventory (MSI) (Nichols & Molinder, 1984), may be used to derive valid typologies (Schlank, 1995). The MSI was administered to a mixed sample of 164 incarcerated sex offenders. Multivariate cluster analysis of the MSI data identified seven subtypes of sex offenders that differed on characteristics that have implications for treatment (Schlank, 1995). In particular, the derived subtypes differed with regard to the role of sexual arousal and substance use in sex offending, understanding and knowledge of human sexuality, social skills and criminal thinking patterns.

However, the sample size from which the typology was derived was arguably insufficient given multivariate statistical techniques were used to derive the typology and there were relatively small numbers comprising the seven derived types. Due to the small size and limited representativeness of the incarcerated sample used, it has been argued that further replication studies are needed (Bickley & Beech, 2001). Moreover, Schlank's psychometrically derived types were based on a mixed sex offender sample and, thus, it is unclear whether child sex offenders were equally represented in these various types.

*Psychometric profiles using multiple measures.* The research pertaining to psychometric profiles of sex offender types based on multiple measures offers more definitive support for the utility of the statistically derived psychometric approach. Beech (1998) conducted a cluster analysis on data obtained from 140 child sex offenders who completed a psychometric battery of measures. A cluster analysis of data pertaining to levels of pro-offending attitudes and social inadequacy, adjusted for social desirability, identified high deviancy and low deviancy offenders. Compared to the low deviancy offenders, high deviancy offenders had a greater number of characteristics predictive of reoffending such as previous sexual offences,

offences against males or both males and females, extra-familial or extra-familial and incestuous offences and multiple victims.

Subsequent research based on a subset of the original sample reported by Beech (1998), examined the validity of the high and low deviancy classification for predictive recidivism in 53 child sex offenders followed for an average of 6 years. The results supported the utility of Beech's (1998) deviancy classification indicating that high deviancy child sex offenders posed a greater risk for sexual recidivism than low deviancy child sex offenders (Beech et al., 2002). This latter research supported the proposition that the low/high deviancy psychometric typology may be a useful adjunct procedure in determining the recidivism risk and treatment needs of offenders (Beech, 1998).

However, a limitation to Beech's typology is that the questionnaire data on which the groups were based were reliant on self-report scales and, therefore, were subject to response biases (Bickley & Beech, 2001). This issue was partly addressed, as the studies by Beech as well as Beech and colleagues adjusted the scores on the psychometric battery for social desirability response bias. However, research has indicated that such adjustments may be confounded by additional variables, as responses to social desirability measures may also reflect psychological variables such as personality (Smith, 1998).

A further criticism of psychometrically derived typologies is that, in the absence of a theoretical basis, they are unable to further an understanding of offender types or provide direction for interventions (Bickley & Beech, 2001; Blackburn, 1993). Nonetheless, it may be argued that whereas the derived offender types are not based on theory, the measures employed to derive these types assess variables considered to play a casual role in sexual offending. Therefore, differences between

types in these causal variables clearly have implications for the treatment needs of these offenders.

*Summary of statistically derived psychometric profiles approach.* The psychometric approaches reviewed offer a number of advantages. Firstly, these approaches utilise measures that specifically assess psychological variables thought to play a causal role in child sex offending. In common with the previous approaches reviewed, these psychometrically derived types differed with respect to sexually deviant arousal, which in itself has implications for recidivism risk. Furthermore, the psychometric profiles derived from multiple measures also differed on a broader range of psychosocial deficits that possibly also play a causal role in child sex offending. Differences between statistically derived types in these psychological variables may be meaningfully interpreted in light of current understandings of the importance of such variables. It was demonstrated that differences between the psychometrically derived types had implications for both the treatment and risk management needs of the offenders.

Nonetheless, there were a number of limitations of the psychometrically driven approaches to classification. Namely, sample sizes were particularly small given that multivariate statistical techniques were used to derive the child sex offender types. However, a more substantial criticism that also pervades the approaches reviewed thus far is that the psychometrically derived types lack a theoretical basis. It is believed that a theoretical basis to offender classification is needed because the purpose of offender classifications should be to further the understanding of offenders so that the interventions used may be effective (Bickley & Beech, 2001; Hudson et al., 2000). Therefore, it is appropriate to turn now to a discussion of the theoretical approaches to classification.

#### 2.2.4 *Theoretically Meaningful Types*

In the fourth approach to classification, categories of child sex offenders are distinguished on the basis of theoretically important attributes (Bickley & Beech, 2001). There are two predominant typologies that have been developed on the basis of theoretically meaningful types. The first is the Massachusetts Treatment Center Child Molester Typology, Version 3 (MTC:CM3) (Knight et al., 1989; Knight & Prentky, 1990) and the second is Ward and Hudson's (1998a, 2000a) Self-Regulation model of the sex offence process.

*The MTC:CM3 typology.* The MTC:CM3 is considered by many to be the most comprehensive typology of child sex offenders (Fisher & Mair, 1998; Grubin, 1998; Looman et al., 2001; Marshall, 1997; Polaschek, 2003a). This typology was based on the work of Cohen and colleagues (1969) that identified four types of child sex offenders: fixated, regressed, exploitative, and aggressive/sadistic. However, in deriving the MTC:CM typology revisions, there was a major reconceptualisation of the fixated-regressed dichotomy to reflect the relative independence of level of social competence (Knight et al., 1989; Knight & Prentky, 1990).

The third edition of the MTC:CM typology (Knight et al., 1989; Knight & Prentky, 1990) is comprised of two major axes. On the first axis are four possible types created through the combination of level of fixation (high, low) and social competence (high, low). On the second axis, child sex offenders are broadly categorised by amount of contact with children (high, low).

High contact offenders are divided into two types based on reasons or motivations for the high contact (interpersonal or narcissistic). Low contact offenders are subdivided firstly on the basis of amount of injury inflicted (low, high) and then further subdivided on the basis of the presence or absence of sadistic aggression (Knight et al., 1989; Knight & Prentky, 1990). The MTC:CM3 typology



of child sex offenders thereby theoretically distinguishes between 24 different types of offenders.

Empirical research has supported the validity and reliability of the MTC:CM typology. Knight and colleagues (1989) demonstrated in a preliminary analysis that the MTC:CM3 has reasonable reliability and validity. However, they also noted that 11 of the 24 possible types of offender were not represented by their sample, as these types contained 3 or fewer cases.

Independent support for the inter-rater reliability of the MTC child molester typology, with the exception of the sadistic types, was obtained in a sample of child sex offenders from the Regional Treatment Centre in Ontario (Looman et al., 2001). This same research identified preferential child sex offenders (high fixation and high contact) as posing a high risk for sexual recidivism, as they were more likely to demonstrate deviant sexual arousal in phallometric testing and had a greater number of victims (Looman et al., 2001). However, it has not yet been established whether this typology can be used to make reliable predictions about re-offending (Bickley & Beech, 2001; Grubin, 1998).

More recently, independent support was obtained for the MTC:CM3 typology in a multivariate analysis of scores for the MTC:CM3 types on the Personality Assessment Inventory (PAI: Kovach, 2004). In particular, significant differences between the fixation subtypes were obtained on the PAI scales.

Therefore, existing evidence is supportive of the reliability and validity of the MTC:CM typology. Moreover, the MTC:CM typology, like many of the approaches to classification reviewed, has implications for risk assessment. However, the unique advantage of the MTC:CM typology is that the derived types have a theoretical basis and, thereby, are inherently meaningful. As a result, these types may aid in understanding the means by which certain variables contribute to sex offending.

Although clearly there is independent support for the MTC:CM3 typology, more abundant independent support would be expected given the MTC:CM3 is considered to be the most comprehensive and well-validated typology (e.g., Grubin, 1998; Looman et al., 2001). It is also questionable whether this typology may be considered theory-driven given it was originally based on a theory stipulating four types of offenders but through empirical means has derived 24 possible types. It may also be questioned whether the distinctions between the 24 possible types are clinically meaningful. It is possible that the high number of categories identified in this typological system challenges the utility of its practical application (Bickley & Beech, 2001; Marshall, 1997; Polaschek, 2003a).

A major limitation of the MTC typology is that it can only be applied to extra-familial offenders. The exclusionary criteria for the MTC:CM3 eliminated incest-only offenders (Knight et al., 1989) and as such, the system would not be applicable to such a group (Bickley & Beech, 2001; Fisher & Mair, 1998; Polaschek, 2003a; Prentky, 1999).

*The self-regulation model typology.* The most recent example of theory-driven typologies is Ward and Hudson's (1998a, 2000a) Self-Regulation model of the sex offence process which is based on Self-Regulation theory. The model is intended to offer a compromise between purely theoretical and purely data driven approaches to classification (Polaschek, 2003b). The Self-Regulation model of the sex offence process was developed from a grounded theory analysis of offenders' self-reported descriptions of how their sex offences unfolded.

These self-reported descriptions were subsequently interpreted in light of Self-Regulation theory. Self-Regulation theory is concerned with the internal and external mechanisms that are employed by individuals in striving to achieve desired standards or goals (Baumeister & Heatherton, 1996; Karoly, 1993; Vohs &

Baumeister, 2004). As such, goals are a central component in Self-Regulation theory.

The Self-Regulation model of the sex offence process categorises sex offenders into four predominant pathways of offending based on the goal they possess with regard to deviant sex (approach/acquisitional or avoidance/inhibitory) and the selection of strategies designed to achieve that goal (active/explicit or passive/implicit) (Ward & Hudson, 1998a). These four pathways are comprised of different combinations of affective, cognitive, motivational and contextual factors that unfold over nine sequential phases.

There is emerging favourable support for the veracity and utility of this typological model. A number of studies have provided support for categorising child sex offenders as having either approach (acquisitional) or avoidant (inhibitory) goals regarding deviant sexual activity with children (Bickley & Beech, 2002, 2003; Hudson, Ward, & McCormack, 1999; Proulx et al., 1997; Ward, Loudon et al., 1995; Webster, 2005). The Self-Regulation model of the sex offence process makes predictions regarding the treatment needs for offenders following these pathways (e.g., Polaschek, 2003b; Ward, 2000). In fact, the authors of the model promote the offence pathways as a means of classification that has implications for treatment interventions (Hudson et al., 2000; Ward & Hudson, 1998a). To the credit of the model, it has independently been shown that these pathways relate to different treatment needs of child sex offenders. For instance, approach goal offenders have demonstrated higher levels of cognitive distortions and victim empathy distortions (Bickley & Beech, 2002, 2003). Clearly then, the pathways approach to classification offers much promise with regard to practical usefulness and has received considerable empirical support to date.

However, there are some limitations to this process oriented approach.

Firstly, it has been noted that the sample of participants on which the Self-Regulation model was constructed was considerably small and consisted of untreated offenders (Bickley & Beech, 2001). Having said this, there has been promising support for this model including support from independent sources and independent samples of participants (e.g., Bickley & Beech, 2002, 2003). A further limitation noted is that Ward and colleagues have not stated any specific criteria with which to classify offenders (Bickley & Beech, 2001) although independent researchers have recently provided criteria and guidelines for classifying offenders according to the four proposed pathways (Bickley & Beech, 2003). Further to this latter point, construction of the model and classification of offenders has been based purely on self-report data. However, a more substantial criticism is that many of the assumptions underpinning the Self-Regulation model of the sex offence process have not yet been empirically validated.

*Summary of theoretically meaningful types.* The theoretical approaches to classification of child sex offenders have received considerable empirical support regarding their practical utility. The advantage of these theoretically based approaches is that differences between types of child sex offenders may be meaningfully interpreted in light of theoretical understandings of the derived types.

However, in comparison to the MTC:CM3, the Self-Regulation model typology has received little empirical support for the reliability and validity of its underlying assumptions. Furthermore, there has been little empirical exploration of possible risk assessment implications of the Self-Regulation model. In contrast, preliminary data have suggested that certain MTC:CM3 types may pose a greater risk for sexual recidivism.

Despite these limitations, the Self-Regulation model offers a number of advantages in comparison to the MTC:CM3 typology. In particular, the Self-Regulation model of the sex offence process is a less complex typology. Moreover, the Self-Regulation model is a more inclusive typology as it may apply to both extra-familial and incestuous child sex offenders. Finally, the Self-Regulation model offers unique information not explored by other typological systems. The Self-Regulation model provides an in-depth description of the different types of processes occurring during sex offending. Therefore, the Self-Regulation model has a number of unique offerings but has not been empirically validated to the same extent as the MTC:CM3 typology.

#### *2.2.5 Summary of Classification Approaches*

In summary, a number of approaches to classifying offenders have been explored. It is apparent that each of these approaches has limitations and clearly, much work needs to be done before confidence can be placed in the validity of the classification systems used. Common limitations of many of the classification approaches reviewed include small sample sizes, lack of representativeness of samples (e.g., incarcerated and untreated samples) and lack of empirically established reliability and validity (Bickley & Beech, 2001; Fisher & Mair, 1998).

Moreover, there are two major and pervasive limitations of the majority of approaches to classifying child sex offenders. The first major limitation is they have been unable to provide direction for treatment interventions as the derived types typically lack theoretical meaning. Secondly, the majority of approaches to classification do not address the existence of multiple pathways to offending that have been distinguished on the basis of unique psychological processes (e.g., Ward & Hudson, 1998a, 2000a) that may take place during offending (Bickley & Beech,

2001; Polaschek, 2003a). Similar conclusions have been reached by other researchers reviewing the major approaches to sex offender classification (e.g., Bickley & Beech, 2001; Hudson et al., 2000).

Given the pervasiveness of these two major limitations, the Ward and Hudson Self-Regulation pathways model appears to be a very promising approach. The independent research of Bickley and Beech (2002, 2003) has indicated that there are important differences in the treatment needs of approach and avoidant goal pathway offenders. Ward and Hudson's Self-Regulation pathways model has a clear theoretical grounding that may be used to interpret and understand these differences between offenders so that interventions for these offenders may be more effective.

Moreover, the offence process models used to classify various pathways to sex offending are more capable than other approaches of capturing the dynamic nature of sex offences. The Self-Regulation model of the sex offence process acknowledges that the key processes occurring during sex offending may change during the course of the event (Ward & Hudson, 1998a, 2000a). A central proposal of this thesis is that advances in risk assessment and treatment of sex offenders will be gained by developing theories of the psychological and psychophysiological processes occurring during sex offending. However, substantial empirical testing of the assumptions behind the Self-Regulation model of the sex offence process is required.

## CHAPTER THREE: THE SELF-REGULATION MODEL OF THE SEX OFFENCE PROCESS

### 3.1 The Process Oriented Approach

There has been a strong growth, in recent times, in research examining the offence chain or offence process in sex offenders (e.g., Hudson et al., 1999; Polaschek, Hudson, Ward, & Siegert, 2001; Proulx et al., 1997, 1999; Ward, Loudon et al., 1995). The offence chain or offence process refers to the idea that sex offending is the result of a sequence of processes and events that gradually unfold over time (McGuire, 2000; Polaschek et al., 2001). The growth in research examining the offence chain has particularly furthered the understanding of the processes occurring during the commission of sex offences against children.

#### *3.1.1 Relapse Prevention*

The research regarding the sex offence process has its roots in Relapse Prevention (RP) theory. RP theory has been extensively and effectively applied as a form of cognitive-behaviour therapy (CBT) in the treatment of a range of addictive and non-addictive problem behaviours (e.g., see Witkiewitz, Marlatt, & Walker, 2005, for a review). RP is concerned with describing the processes, or chain of events, that lead to relapse into undesirable behaviours. The focus of RP has been to provide clients with the necessary skills and strategies to avoid or break the chain of events leading to relapse (Larimer, Palmer, & Marlatt, 1999; Pithers, Kashima, Cumming, & Beal, 1988; Pithers, Kashima, Cumming, Beal, & Buell, 1988).

The RP model was originally developed by Marlatt and Gordon (1985) and was applied to addictive behaviours such as alcohol consumption and smoking. Marlatt and Gordon proposed a chain of identifiable events that lead an individual

from encountering a high risk situation that challenges their self-control and coping skills, to engaging in lapse behaviour and eventually relapsing. A lapse was defined as a single occurrence or re-emergence of the addictive behaviour or habit. An example of lapse behaviour in an abstinent alcohol dependent person or smoker is a single episode of using the avoided substance (Brownell, Marlatt, Lichtenstein, & Wilson, 1986). It was proposed that cognitive processes experienced by the individual in response to the initial transgression determine whether the lapse escalates into a relapse. A relapse into addictive behaviours was defined as a loss of control and gradual return to frequent engagement in the behaviour from which the individual was attempting to remain abstinent (Marlatt & Gordon, 1985).

*The amended RP model.* Pithers, Marques, Gibat and Marlatt (1983) recognised that it was inappropriate to adopt Marlatt and Gordon's (1985) definition of a lapse in applying the RP model with sex offenders, as any single episode of sex offending is unacceptable. Consequently, Pithers and colleagues (1983) amended the RP model so that it may be applied in sex offender treatment. In the RP model of sex offending, a lapse was redefined as any behaviour or state that is likely to lead to imminent sex offending (Laws, 2003a; Pithers et al., 1983). In contrast, a relapse was redefined as any single occurrence of sexually offensive behaviour (Laws, 2003a; Pithers et al., 1983).

The revised RP model postulated that relapse follows a distinct chain of events (Pithers, 1990; Pithers, Kashima, Cumming, Beal et al., 1988). The proposed chain of events initially begins with an abstinent individual engaging in implicit planning and apparently irrelevant decisions (AIDs) that increase the likelihood of encountering a high risk situation. An example of an AID in sex offending is an offender driving past an area where their preferred victim type is likely to be found.



As a consequence of such AIDs, the offender enters a high risk situation, such as engaging in conversation with a person who resembles their preferred victim type.

The high risk situation supposedly challenges the offender's ability to cope and failure to cope results in lapse behaviour. Upon engaging in lapse behaviour, such as fantasising about deviant sex, it is proposed that the offender will experience a cluster of cognitive processes referred to as the abstinence violation effect (AVE). The AVE is defined by a feeling of low self-efficacy, due to self-perceived inability to restrain, as well as a simultaneous need for immediate gratification and anticipation of positive states. It is then proposed that relapse into sex offending occurs if the offender is unable to engage in active and appropriate coping responses (Pithers, 1990; Pithers, Kashima, Cumming, Beal et al., 1988).

*Application of the RP model.* Treatment programs for sex offenders have benefited from using the amended RP model as a guiding framework (Polaschek, 2003b; Polaschek et al., 2001; Ward, 2000). In particular, the efficacy of sex offender treatment interventions was strengthened by the adoption of the central RP notion that relapse into offending is the result of a possibly identifiable chain of events (Polaschek et al., 2001). Descriptions of the offence chain in treatment have been beneficial in aiding the development of self-management strategies in sex offenders that function to prevent future relapse (McGuire, 2000).

The amended RP model for sex offenders (Pithers et al., 1983) was well regarded by those working in the sex offender field for its notion of the offence chain (Hudson & Ward, 2000; Hudson et al., 1999; Polaschek et al., 2001; Ward, 2000; Ward & Hudson, 1998a; Ward, Louden et al., 1995). As such, relapse prevention became, and still is, a popular component of sex offender treatment programmes (McGuire, 2000; Prentky et al., 2006).

*Limitations of the amended RP model.* Although the notion of the offence chain in the RP model for sex offenders has been readily and uncritically accepted in treatment domains (Laws, 2003a), independent researchers have noted some conceptual limitations of the RP model (Hudson & Ward, 2000; Laws, Hudson, & Ward, 2000; Polaschek, 2003b; Ward & Hudson, 2000a; Ward, Hudson, & Marshall, 1994; Ward, Purvis, & Devilly, 2004). Notably, researchers argued that the proposal that two mechanisms simultaneously lead the individual from a lapse into a relapse, that is, need for immediate gratification and the AVE, implies a simultaneous experience of positive and negative emotions (Hudson & Ward, 2000; Ward, 2000; Ward & Hudson, 1996).

The need for immediate gratification entails the anticipation of positive affect whereas the AVE implies the experience of negative affect in response to a self perceived inability to cope (Pithers, 1990). It is the current author's contention that the simultaneous experience of these two mechanisms does not imply the individual will experience both positive and negative affect simultaneously, as the need for immediate gratification entails anticipation of and not actual experience of positive emotions.

Perhaps a more substantiated criticism by researchers has been that many of the assumptions underlying RP were untested (Laws, Hudson et al., 2000; Ward, 2000; Ward, Loudon et al., 1995). Researchers have been particularly critical of the lack of empirical validation for the notion of there being a single pathway to relapse comprised of implicit/covert planning and negative affect (Hudson & Ward, 2000; Hudson et al., 1999; Laws, Hudson et al., 2000; Polaschek, 2003b; Ward, 2000; Ward & Hudson, 1998a, 2000a, 2000b; Ward et al., 1994).

### 3.1.2 Empirically Driven Offence Process Models

To examine whether there was evidence to support a single pathway to offending, researchers set out to develop models of the offending process that were empirically driven (e.g., Ward, Louden et al., 1995). That is, they aimed to explore what actually happens in the offence chain by asking offenders directly.

Empirical research based on offender self-report indicated that there were multiple offence chains leading to relapse into child sex offending (Proulx et al., 1997, 1999; Ward, Louden et al., 1995) and rape (Polaschek et al., 2001). This notion of multiple pathways to offending is more willingly received given empirical evidence, as outlined in Chapter Two, demonstrates that sex offenders are a heterogeneous population.

*Initial offence process models.* The first study, in a series of studies investigating multiple pathways to offending, was conducted using a sample of incarcerated but untreated child sex offenders (Ward, Louden et al., 1995). The researchers used a bottom-up approach (Polaschek, 2003b) whereby they constructed a model describing the chain of cognitive, affective, motivational and contextual factors leading to child sex offending directly from offender descriptions of how their offences unfolded. Twenty-six child sex offenders were asked to describe, on audiotape, a recent or typical offence and how it unfolded over four stages that depicted the background, high-risk situation, lapse and relapse. Subsequently, offenders were asked to listen to their description of each stage, to prompt their memory of events, and to describe the emotions and thoughts experienced in each stage.

The researchers then analysed this qualitative data from offenders using Strauss and Corbin's (1990) method of grounded theory analysis. Grounded theory analysis has been described as an inductive and qualitative approach to theory

development (Strauss & Corbin). Grounded theory analysis entails deriving meaning units from descriptions of a phenomenon (e.g., offence descriptions) and initially placing these meaning units into categories. The categories are further analysed and reconceptualised, where necessary, to accommodate for new data. Links and relationships are then drawn between emerging categories and they may be further analysed and reconceptualised until a model or theory becomes evident. The process of reconceptualising continues until the emerging model is able to accommodate all data (Cassar, Ward, & Thakker, 2003; Laws, 2003a).

Emerging from this grounded theory analysis of offence-chain descriptions was a nine-stage model detailing two major pathways distinguished by the cognitive and behavioural processes occurring at various stages (Ward, Loudon et al., 1995). The first major pathway, described as being a positive affect pathway, depicted offenders who engaged in explicit planning, held cognitive distortions and perceptions of the act being consensual, used little coercion, experienced high sexual arousal, and formed positive evaluations of the event. The second major pathway described offenders who experienced negative affect, consumed alcohol, engaged in implicit planning and highly intrusive behaviour, and perceived the victim as an object.

Despite the small sample size on which this research was based (Ward, Loudon et al., 1995), the existence of multiple pathways and, particularly, a positive affect pathway, directly challenged Pithers' RP model that outlined a single covert and negative affect pathway to offending. However, it is worthy of mention that the condemnation of Pithers' (1990) description of the offence chain, due to its supposed focus on negative affect, failed to credit Pithers' recognition that positive affective states exert influential effects at various stages during the offence process. Pithers' (1990) model particularly acknowledged the influence of positive affect in the latter

stages of the offence chain where the offender supposedly experiences a need for immediate gratification, which implies that positive feelings are experienced at least during the relapse (i.e., the sex offence). Be that as it may, Ward and colleagues correctly stated that Pither's proposed offence chain was predominantly characterised by negative affect.

*Independent offence process models.* Subsequent independent research (Proulx et al., 1997, 1999) supported the notion of multiple pathways to offending that may be distinguished on the basis of whether planning was implicit or explicit. The researchers conducted a cluster analysis of pre-crime and peri-crime factors from case files and offence transcripts of 44 incarcerated extra-familial child sex offenders.

The cluster analysis indicated two predominant pathways to offending consisting of a coercive route and a non-coercive route. The non-coercive route closely resembled the positive affect pathway of Ward, Loudon et al. (1995) with explicit planning and cognitive distortions being evident. The coercive pathway was likened to the negative affect pathway described by Ward and colleagues, as it entailed implicit planning. However, Proulx et al. (1997, 1999) failed to find a discriminating effect of affect in the 12-hour pre-crime phase on factors occurring during the offence. They equated this unexpected departure from Ward and colleagues' findings with a lowered reliability of self-report data in their study as well as a more restricted sample.

*Extensions of offence process models.* The original Ward, Loudon et al. (1995) offence model was extended and cross-validated by further research of offence descriptions from 86 sex offenders, including 72 child sex offenders and 14 rapists (Hudson et al., 1999). From conducting a grounded theory analysis of

offence descriptions, Hudson and colleagues (1999) found supporting evidence for the existence of three, rather than two, major pathways to offending.

Hudson and colleagues (1999) identified a major pathway to offending comprised of positive affect, explicit planning, perceptions of the act being consensual and a commitment to future offending, which accounted for 32.5 percent of the offence processes. The second major pathway accounted for 16.3 percent of offenders and consisted of negative affect, explicit planning, a self-focus, negative evaluation and subsequent goals of avoidance. The third major pathway, encompassing 24.4 percent of offender profiles, also entailed negative affect, a self-focus, negative evaluation and commitment to avoidance goals but the offence unfolded through implicit planning. The researchers pointed out that this final pathway resembled Pithers' description of the offence process and only represented approximately a quarter of the offenders in their sample. Clearly, there was strong indication that there are multiple pathways to child sex offending.

However, researchers were also particularly interested to determine whether these offence pathways, derived predominantly from child sex offenders, were evident in other samples of sex offenders, namely rapists. Although rapists are not the focus of this chapter and, indeed, this thesis, it is worthy of mention that the empirical validity of the offence pathways was supported among a rapist sample (Polaschek et al., 2001). Using the previously described grounded theory analysis of Strauss and Corbin (1990), with offence descriptions taken from 24 incarcerated rapists, an offence model was derived that described multiple pathways to offending, including an explicit planning pathway comprised of predominantly positive affect (Polaschek et al., 2001). Building on this preliminary model, Polaschek and Hudson (2004) subsequently described three predominant pathways to offending in rapists. The three pathways consisted of seeking sexual gratification to enhance positive

affect, seeking sexual satisfaction as a means for escaping from negative affect, and seeking to redress perceived harm against one's self by another.

*Beneficial features of offence process models.* This line of research offered some useful conceptual developments. In particular, this research further highlighted the need to account for offender heterogeneity given evidence for multiple pathways to offending. This research also elucidated a number of variables pertinent and proximal to offending that are dynamic in nature, that is, their influence and prominence changes during the course of an offending episode. Therefore, this research questioned the validity of the majority of taxonomic systems for sex offenders that are based solely on static and distal factors (e.g., Barbaree & Seto, 1997; Blanchard & Dickey, 1998; Danni & Hampe, 2000).

Another notable benefit was that, through focusing on variables that are proximal/immediate to offending, this research was able to address how offending occurs and unfolds. However, this rapidly growing field of research was lacking a theoretical basis to provide a deeper understanding of the various mechanisms leading to sex offending.

### 3.2 The Self-Regulation Model

To address the theoretical inadequacy of the developing research on offence process models, Ward and Hudson (1998a) developed a Self-Regulation model of the sex offence process. The Self-Regulation model was intended to provide a compromise between pure data driven approaches and purely theory driven approaches to model formation (Polaschek, 2003b).

### *3.2.1 Self-Regulation Theory*

Building on the offence process models developed, Ward and Hudson (1998a, 2000a) proposed that Self-Regulation theory could be used to provide a theoretical framework for the descriptions of the various pathways to sex offending. Self-Regulation theory is concerned with the internal and external mechanisms that are employed by individuals in striving to achieve desired standards or goals (Baumeister & Heatherton, 1996; Karoly, 1993; Vohs & Baumeister, 2004).

According to Self-Regulation theory, goals/desired states may be either acquisitional/approach or inhibitory/avoidant in nature (Carver, 2004; Carver & Scheier, 2001; Cochran & Tesser, 1996). Acquisitional/approach goals involve an individual striving to achieve or maintain a desired state or situation whereas when an individual desires to prevent or decrease a particular state or situation they are striving for inhibitory/avoidance goals (Cochran & Tesser, 1996). It is anticipated that the pursuit of approach goals is associated with positive psychological states as attention is focused on indicators of success and, therefore, any gain of the desired state is considered rewarding. In contrast, due to the focus on indicators of failure in avoidant goals, pursuit of inhibitory goals is most likely associated with a negative psychological state (Carver, Sutton, & Scheier, 2000; Cochran & Tesser, 1996).

The mechanisms enlisted by individuals to manage their behaviour, thoughts and emotions so that they may achieve a desired goal include self-monitoring, planning, selection, evaluation and modification of behaviour (Thompson, 1994). Self-Regulation theory proposes that dysfunctions in these mechanisms may result in either self-regulation failure or maladaptive behaviour (Baumeister & Heatherton, 1996). The first type of self-regulation dysfunction involves under-regulation in which an individual fails to achieve their goal through a lack of self-monitoring and self-awareness. In the second form of self-regulation dysfunction the individual may



fail to achieve a goal through mis-regulation of behaviour, as they select inappropriate plans and behaviours (Baumeister & Heatherton, 1996). Finally, Ward and colleagues (Keenan & Ward, 2003; Ward & Hudson, 1998a, 2000a; Ward, Hudson, & Keenan, 1998) made note of a third form of dysfunction/maladaptive behaviour that is largely neglected whereby self-regulation is intact and the individual achieves their goal but the individual selects inappropriate goals.

Self-Regulation theory also suggests that goal-driven behaviour is not necessarily always under conscious attentional control (Karoly, 1993). Although Pithers' (1990) RP model proposed a covert route to sex offending involving implicit planning, it was criticised for not explaining the mechanisms enabling such implicit planning to result in offending (Ward & Hudson, 2000b). The RP model posited that offenders make seemingly unimportant decisions that place them at a high risk for relapse (Pithers, 1990). However, the model failed to explain how it may be possible for an individual to make decisions and be aware of their actions yet not be aware of the motivational reasons for these decisions and actions.

Hence, Ward and Hudson (2000b) provided a detailed explanation of the mechanisms that enable offenders to engage in implicit planning. Through incorporating research on self-regulation as well as literature pertaining to the notion of expertise and the psychological research pertaining to addiction and cognitive schemas and scripts, they suggested there are two mechanisms that can explain covert routes to offending, namely, offence scripts and mental simulation.

Offence scripts were proposed to be the mechanism driving implicit planning in offenders who have a history of sex offending (Ward & Hudson, 2000b). It was proposed that through the consistent pairing of stimuli and response (i.e., offence triggers and offence behaviour), offenders may develop complex offending scripts that, when automatically triggered by relevant offence stimuli, lead the offender to

high risk situations. It was hypothesised that more conscious awareness may occur once the offender has moved from the high risk situation into lapse behaviours.

Mental simulation was posited as a second mechanism accounting for implicit planning which may occur in the absence of a previous offence history (Ward and Hudson, 2000b). Mental simulation involves prior fantasy and mental rehearsal of the commission of an offence that is blocked from conscious awareness until the emergence of a situation closely resembling that depicted in the fantasy. The emergence of such a situation was expected to then begin the automatic enactment of the mentally rehearsed plan with little conscious awareness of the underlying motivations. However, as with automatic goal-dependent actions created by offence scripts, once the initial actions lead to actual offending behaviours, more conscious planning was proposed to take place. Therefore, although it is not plausible to suggest that actual sex offending itself is an automatic process, it is somewhat plausible to argue that early behaviours leading to high risk situations may be guided by implicit and automatic processes (Ward & Hudson, 2000b).

### *3.2.2 The Self-Regulation Model of the Sex Offence Process*

In their Self-Regulation model of the sex offence process, Ward and Hudson (1998a, 2000a) proposed that there are four pathways to offending based on a combination of the offenders' goal regarding deviant sex (approach or avoidance) and the strategy they select to achieve that goal (active or passive). These four pathways are comprised of different combinations of affective, cognitive, motivational and contextual factors that unfold over nine sequential phases.

*Self-Regulation pathways to sex offending.* The two types of approach pathways are associated with predominantly positive affect. The approach-explicit (or approach-active) pathway is characterised by acquisitional goals, explicit

planning, cognitive distortions, deviant sexual arousal and intact self-regulation. The approach-implicit (or approach-passive) pathway is characterised by under-regulation in which an individual possesses acquisitional goals and automatically acts on these goals with little inhibition through the triggering of an established offence script.

The two types of avoidance goals are associated predominantly with negative affective states. The avoidant-active pathway is characterised by misguided regulation whereby an individual actively attempts to avoid sexual offending but fails to restrain themselves due to the selection of inappropriate strategies that, in fact, have an unintended and opposite effect of increasing the chances of offending. Finally, the avoidant-passive pathway to sex offending closely resembles Pithers' (1990) covert route and is characterised by under-regulation as the individual desires to avoid offending but fails to enact any strategies to prevent sex offending from occurring. Avoidant-passive individuals are described as having poor coping skills, high impulsivity and low self-efficacy expectations.

Although these pathway descriptions appear to be describing stable states, Ward and colleagues have argued that the combination of variables comprising each pathway may change during the course of the offence chain. Indeed, a dominant theme running throughout this research on offence process models is that offending is a complex and dynamic behaviour and, as such, it is crucial to examine the development of this behaviour over time (Ward, 2000; Ward & Hudson, 1998a, 2000a). Psychological states, such as offender goals and emotions may change during the course of an offence chain (Polaschek et al., 2001).

*Phases of the sex offence process.* Consistent with this view of the offence process being dynamic in nature, the Self-Regulation model places a large emphasis on the development, over time, of affective, cognitive, motivational and contextual

factors. The Self-Regulation model, as already mentioned, examines the evolution of the four pathways to offending across nine sequential phases (Ward, 2000; Ward & Hudson, 1998a, 2000a).

In phase one, referred to as life event, a life experience is encountered by the individual and appraised. The life event supposedly triggers an individual's knowledge structure surrounding their salient goals and needs and this, in turn, triggers specific patterns of thoughts, emotions and motivations. Following on from encountering the life event, in phase two (desire for deviant sex or activity) the individual experiences a desire to sexually offend or engage in some other maladaptive behaviour and emotions corresponding to these triggered desires are experienced.

In phase three (offence related goals established), these desires are said to lead to the establishment of an offence related goal which is either approach or avoidant in nature. Avoidant goals represent a desire to avoid engaging in sex offending or other maladaptive behaviours and, hence, the associated emotions tend to be negative. In contrast, approach goals are acquisitional and reflect either a direct desire to offend sexually or an indirect desire to offend sexually as a means of achieving some other primary goal. However, depending on the purpose of the goal of sex offending, emotions experienced by those possessing approach goals may be positive or negative. For instance, goals that relate to a desire to harm another as a means for reinstating equality after being harmed by another may be associated with negative affect even though the goal is acquisitional in nature (Polaschek et al., 2001).

In phase four (strategy selected), the individual either consciously or unconsciously selects a strategy to achieve their goal. The strategy may be either active and, hence, lead to an explicit pathway of offending, or passive and, therefore,

lead to an implicit pathway to offending. Through the combination of type of goal and type of strategy selected, four possible pathways to offending emerge at this stage; avoidance-passive, avoidance-active, approach-automatic, and approach-explicit. At this phase, avoidant offenders are expected to be experiencing predominantly negative affect whereas the predominant emotion may be positive or negative for approach offenders depending on the purpose of their goal.

In phase five (high risk situation entered), it is hypothesised that the offender enters the high risk situation and comes into contact with the victim. It is proposed that avoidant pathway offenders at this phase would most likely be feeling negative emotions as they would be feeling increasing sexual arousal and would be experiencing perceptions of low self-efficacy with regard to restraining themselves. Approach offenders, on the other hand, will be feeling high self-efficacy and will be focusing on achieving their goal although emotions experienced may again be positive or negative depending on the nature of the goal.

Phase six (lapse) depicts the events occurring in preparation for the commission of the sex offence. Here it is hypothesised that whereas approach offenders maintain their goal, avoidant offenders switch to a goal that is approach in nature as they have yielded to their deviant desire. All offenders at this point are expected to be experiencing predominantly positive emotions due to increasing levels of sexual arousal and/or positive anticipation. Following on from the lapse, the sex offence is committed in phase seven (sexual offence) and it is hypothesised that the majority of offenders will predominantly experience positive emotions in this stage due to their adoption of approach goals.

In phase eight, post offence evaluation takes place. It is hypothesised that at this point avoidant goal offenders will experience predominantly negative emotions due to their perceived failure whereas approach goal offenders will experience

predominantly positive emotions due to having achieved their goal. In phase nine (attitude towards future offending), the final stage, the offender forms future intentions and resolutions. It is hypothesised that approach goal offenders will intend to further pursue their goal of offending and/or will have their behavioural script reinforced whereas the outcome of this stage will be more variable for avoidant offenders.

*Summary of Self-Regulation model.* In summary, the Self-Regulation model has empirical as well as theoretical roots. It provides a description and explanation of the emotions, thoughts, motivations and other relevant factors that are thought to lead an offender through the offence chain. The model clearly accommodates offender heterogeneity as it proposes multiple pathways to offending. Furthermore, the model is able to capture the dynamic nature of sex offending through its explicit temporal focus.

### *3.2.3 Support for the Self-Regulation Model*

As outlined in Chapter Two, the empirical literature had consistently provided support for the validity of distinguishing between child sex offenders with approach and avoidant goals (Bickley & Beech, 2002, 2003; Hudson et al., 1999; Proulx et al., 1997, 1999; Ward, Loudon et al., 1995). A more recent study also demonstrated independent support for the content validity of the Self-Regulation model across the nine phases in a mixed sample comprised of rapists and child sex offenders (Webster, 2005). However, some ambiguities and cases of participants who were unable to be categorised were noted (Webster, 2005). Nevertheless, it may be argued that these ambiguities and difficulties in classification may be a reflection of the mixed sample used and so it is possible that the Ward and Hudson (1998a,

2000a) model may require alterations to accommodate rapists or the model may simply not be applicable to rapists.

#### *3.2.4 Utility of the Self-Regulation Model*

*Treatment implications of the Self-Regulation model.* It is readily apparent that the Self-Regulation model presents a number of implications for treatment. Ward and others (Hudson et al., 2000; Polaschek, 2003b; Ward, 2000; Ward et al., 1998; Ward & Hudson, 1998a) have argued that the treatment needs of the different pathway offenders would differ markedly.

Hudson and Ward (2000) provided an outline of the intervention elements that would most likely need to be addressed for each of the four Self-Regulation model pathways to offending. They suggested that avoidant-passive pathway offenders would most likely benefit from using traditional relapse prevention treatment approaches with a specific focus on coping skills, self-regulation and awareness skills, relationship skills and enhancement of self-efficacy. They proposed that avoidant-active offenders, due to being characterised by mis-regulation, would also need to develop their self-regulatory skills, coping skills and relationship skills but there would be less need for focusing on self-awareness.

The treatment needs of approach-automatic offenders were anticipated to be somewhat similar to those of avoidant-passive pathway offenders as both pathways involve under-regulation. Hudson and Ward (2000) suggested that approach-automatic offenders would need to address their self-regulation strategies with regard to higher order cognitive tasks such as awareness and explicit attention. In addition, cognitive and empathy deficits as well as negative world views would supposedly need to be addressed. Hudson and Ward (2000) proposed that for approach-automatic offenders, self-regulation problems would also be evident more broadly in

social relationships. Finally, for approach-explicit offenders, it was recommended that the primary aim of treatment should be to address the legitimacy of goals selected as skill deficiencies would be unlikely. It was also anticipated that treatment would need to address maladaptive schemas of the world and possibly for certain types of offenders, such as paedophilic offenders, reconditioning of sexual appetitive processes would be required. Given the preceding discussion, it is logical to argue that treatment providers must consider the predominant pathway of an offender as the offenders comprising these different pathways are likely to have markedly different treatment needs.

In support of these suggested implications for treatment, independent researchers have found that approach and avoidant goal offenders differ on a number of variables that are commonly addressed in treatment interventions for sex offenders. Bickley and Beech (2002, 2003) conducted a series of studies which indicated that approach and avoidant offenders differed in their possession of variables commonly targeted in treatment. They found that approach offenders demonstrated greater cognitive distortions regarding the legitimacy of sexual interactions between adults and children as well as greater deficits in empathy for their own victims when compared with avoidant offenders. Therefore, Bickley and Beech's research indicated that the efficacy of treatment interventions would be increased by focusing on the issues and deficits of pertinence to the types of offenders undertaking the treatment.

Despite this validating research, the treatment implications of active and passive strategy offenders have been relatively under explored. Bickley and Beech (2002) noted that the distinctions regarding active and passive pathway offenders were less conclusive. They found that passive strategy offenders had a higher external locus of control but, unexpectedly, were no less assertive nor more



impulsive than active strategy offenders. As a possible explanation, they proposed that the offenders' use of self-regulation strategy (active/passive) may vary depending on the situation and, thus, offenders may be under-assertive and passive in general social situations but then become more assertive and active during offending to achieve their goal and to avoid detection. Nevertheless, these findings support the proposition that the treatment needs of the four pathway types differ markedly.

*Taxonomic implications of the Self-Regulation model.* In addition to offering a number of treatment implications, the merit of the Self-Regulation model in providing a taxonomic system for classification of child sex offenders was explored and discussed in Chapter Two. There is clearly much evidence to support the validity of the Self-Regulation model as a means for classifying offenders (Bickley & Beech, 2002, 2003; Hudson & Ward, 2000; Hudson et al., 1999; Proulx et al., 1997, 1999; Ward & Hudson, 1998a, 2000a, 2000b; Ward, Loudon et al., 1995; Webster, 2005). A particular strength of the Self-Regulation model is its ability to capture the dynamic nature of offending. As such, the model provides a more realistic means by which to classify offenders, as clearly it is problematic to assume stability in offence variables (e.g., Polaschek et al., 2001; Ward, 2000; Ward et al., 1998; Ward & Hudson, 1998a, 2000a). However, at this point in time the model is limited in representativeness to child sex offenders and would require further empirical validation before it could be applied to the classification of other groups of sex offenders.

*Risk assessment implications of the Self-Regulation model.* A final area in which the Self-Regulation model offers much promise is in the examination of dynamic and proximal causal variables in offending. Indeed, independent researchers have suggested that the Self-Regulation model may have a number of implications for sex offender risk assessment (Bickley & Beech, 2001).

As already noted, Ward and colleagues (e.g., Hudson et al., 2000; Ward et al., 1998) have advocated offence process models as a means of addressing the causal role played by proximal variables in offending. Within the risk assessment domain, recent research has begun to recognise and examine the predictive utility of dynamic proximal offence factors in predicting short-term changes in recidivism risk (e.g., Hanson & Harris, 1998, 2000a).

Furthermore, the Self-Regulation model's offence pathways are associated with different offence histories that, in turn, may be predictive of future risk for re-offending (Hudson et al., 2000). For instance, the behaviour of approach-automatic offenders is supposedly heavily influenced by automatic offence scripts that have been developed through repeated sex offences. The possession of offence scripts suggests that approach-automatic offenders have a long offence history (Ward & Hudson, 2000b) and, therefore, are of a greater risk for sexual re-offending (e.g., Hanson & Bussière, 1996, 1998). The risk assessment implications of this model will be discussed further in Chapter Seven.

### *3.2.5 Limitations of the Self-Regulation Model*

Despite the many noted benefits of the Self-Regulation model, there are a number of limitations that need to be addressed and issues that require further exploration. A limitation acknowledged by Ward and colleagues as well as others (Bickley & Beech, 2001), is that the Self-Regulation model is based on relatively small numbers of participants and, in particular, untreated child sex offenders. Further research is required to establish the validity of applying this model to other sex offender groups.

A more substantial issue is that although it has been proposed that self-regulation deficits of offenders may be evident in other specific instances and aspects

of their lives (Polaschek et al., 2001), the Self-Regulation model limits itself exclusively to examining sex offending. In fact, in direct conflict with Polaschek and colleague's (2001) proposal, Ward, Hudson and Marshall (1995) contended in an earlier paper that the self-regulation deficits demonstrated by sex offenders are specific to the offence process.

A notable strength of the Self-Regulation model is its specific focus on offending and, as such, the model has implications for treatment. However, by limiting itself so narrowly, the model cannot assess the extent to which offenders' deficiencies in areas such as self-regulation are situation-specific or whether these deficiencies are evident in other aspects of offenders' lives and relationships. This latter information would also be useful in treatment.

Moreover, the Self-Regulation model has not yet explored whether the pathways to sex offending may be described as deviant or abnormal. By focusing exclusively on deviant sexual behaviour, the Self-Regulation model has not explored whether sex offenders are deviant in other aspects of their lives and whether the processes occurring during consensual sexual encounters are abnormal. Information regarding the processes occurring during consensual sexual encounters would be useful given research has suggested that, among sex offenders, the relative sexual response to consensual sexual activity and deviant/illegal sexual acts is predictive of sexual re-offending (e.g., Hanson & Bussière, 1996, 1998). Moreover, it has been argued that the assessment and treatment of sex offenders also requires an understanding and development of healthy sexual attitudes and behaviours (e.g., Price, 2003). This limitation of the model will be discussed further and addressed in Chapter Four.

A more serious limitation is that the model is based exclusively on self-report, which is a limitation that is readily acknowledged by the authors of the

model. Self-report may be unreliable, as it is subject to social desirability response biases (e.g., Fisher, 1993; McGrath, Cann, & Konopasky, 1998; Tierney & McCabe, 2001a, 2001b). However, in response to such criticisms, it has been argued that it is inappropriate to make assumptions regarding the processes driving offending behaviour (Polaschek et al., 2001) and, in order to investigate these processes, the only existing available tool is offender self-report (Hudson et al., 2000). The research investigating offence process models indicated that the assumptions made by Pithers' (1990) RP model regarding the offence chain were limiting the understanding of the processes occurring during offending. Although offender self-report has been useful in deriving initial models of sexual offence pathways, these models would be strengthened by including objective data. Chapter Four will provide a detailed discussion regarding objective measures of sexual arousal as well as various affective and cognitive processes associated with sex offending and how these measures can be reliably employed to investigate the sex offence process.

On a related point, the Self-Regulation model has been criticised for not providing objective criteria with which to classify offenders (Bickley & Beech, 2001). In the absence of objective criteria, the process of classification will be heavily influenced by clinician impression and associated biases (Bickley & Beech, 2001). In order to address this issue, independent researchers (Bickley & Beech, 2002, 2003) developed ratings scales that can be used to assist in pathway allocation as they list variables characteristic of the different pathways to offending. Individual offenders are rated on each of the variables using a scale from 0 to 10 indicating the extent to which the individual possesses that trait or variable. Despite the development of these scales, it has been argued that more reliable and rigorous means for determining pathway allocation are required as ambiguities in pathway allocation exist at various phases of the model and there are some individuals who

cannot be allocated to one single pathway (Webster, 2005). Limitations regarding subjective measures and the need to use objective measures in conjunction with self-report will be explored in depth in Chapter Four.

Despite these noted limitations, the most pressing hindrance to acceptance of the Self-Regulation model is that many of the underlying assumptions of the model have not been tested or have only been subject to minimal empirical investigation (Webster, 2005). Although there is evidence to support the division of offenders into approach and avoidant pathways (e.g., Bickley & Beech, 2002, 2003; Hudson et al., 1999; Proulx et al., 1997, 1999; Ward, Loudon et al., 1995), the evidence for the legitimacy of the distinction between active and passive offenders is lacking. Furthermore, despite the Self-Regulation model posing a number of testable hypotheses regarding the processes occurring at different phases of the offence chain for the four pathway types, these hypotheses have not yet been tested.

Similarly, whereas there is evidence to suggest that approach and avoidant pathway offenders have markedly different treatment needs (e.g., Bickley & Beech, 2002, 2003), the empirical research regarding the treatment needs of active and passive pathway offenders is less conclusive (e.g., Bickley & Beech, 2002). Moreover, although a number of suggestions have been made regarding the implications of the Self-Regulation model for risk assessment (e.g., Bickley & Beech, 2001); these implications have not yet been empirically validated.

In summary, there are three main limitations of the Self-Regulation model that will be further investigated in the present research. The first major issue relates to the exclusive reliance on self-report and subjective impression in classifying offenders. The second limitation is the Self-Regulation model's exclusive focus on sex offending and sex offenders. The final limitation that needs to be addressed is the lack of empirical verification of many of the assumptions and hypotheses

emerging from the Self-Regulation model. Further exploration of the Self-Regulation model with regard to these main limitations is an essential and logical step to take before investing further efforts into investigating its practical and real-world applications. Chapter Four will aim to address the limitations regarding reliance on self-report and limits in scope. Chapter Five will aim to address the third limitation noted by seeking to establish independent empirical validation for many of the assumptions underlying the Self-Regulation model.

## CHAPTER FOUR: DEVIANCY AND NORMALITY OF PROCESSES DURING IMAGING OF SEX OFFENCES AND CONSENSUAL SEX

### 4.1 Introduction

A number of limitations of the Self-Regulation model of the sex offence process (Ward & Hudson, 1998a, 2000a) were discussed in Chapter 3. There were three major limitations noted. The first was the sole reliance of the Self-Regulation model on self-report, which would most likely limit the reliability of descriptions of offence processes. The second major limitation noted was that the Self-Regulation model has focused exclusively on sex offending and, therefore, has not ascertained whether the processes occurring during sex offending are deviant. The final major limitation considered was that there has been little independent support for the predictions made by the model. This chapter will introduce a guided imagery methodology with the aim of addressing the first two of these three major limitations. The third major limitation will be addressed in Chapter Five.

### 4.2 Self-report and Objective Measures of Sex Offence Processes

The research literature regarding offence process models has clearly highlighted the need to investigate processes occurring during the commission of a sex offence (e.g., Hudson et al., 1999; Polaschek et al., 2001; Proulx et al., 1997, 1999; Ward, Loudon et al., 1995). However, as noted, the offence process models developed rely exclusively on self-report. In defence of these models, it has been argued that it is necessary to rely on self-report as objective measures of the processes occurring during sex offending currently do not exist (Hudson et al., 2000). Nonetheless, it will be argued that this defence of the model is somewhat inaccurate,

as there is an abundance of evidence supporting the validity of objective measures of the processes that occur during sex offending.

Sex offending involves a number of dynamic factors that may be objectively measured, such as sexual arousal as well as various affective and cognitive processes. There is considerable evidence to support the validity of direct measurements of male sexual arousal, such as penile plethysmography, otherwise referred to as phallometry (e.g., Freund, 1977). The empirical evidence supporting the use of this procedure will be explored in further detail in Chapter Seven. In addition to this, research has shown that the sexual responses in humans are characterised by an identifiable pattern of autonomic arousal as indicated by objective measures such as heart rate, respiration rate, and skin conductance (e.g., Masters & Johnson, 1966). This research will be detailed further in the following sections. With regard to affective and cognitive processes, there is a large body of research supporting the association between measures of autonomic nervous system responses and psychological processes (Ax, 1953; Herpertz, Kunert, Schwenger, & Sass, 1999; Lang, 1979; Levenson, 1992; Yoon-Ki, Soon-Cheol, & Byung-Chan, 2005). Therefore, while objective indicators of self-reported psychological events clearly exist, the problem that needs to be addressed is how these objective measures can be reliably and ethically employed in investigating offence processes.

Therefore, this thesis will introduce a methodology that employs objective measures of psychological processes. It is proposed that the reliability of descriptive models of the psychological processes occurring during sex offending may be improved by including objective measurements of such processes. Thus, the discussion will now progress to consider the evidence in support of objective measures of psychological processes. However, from the onset, it must be clearly stated that it is the author's contention that objective measures of psychological



processes should not replace self-report but rather should be used in conjunction with self-report.

#### *4.2.1 Objective Measures of Emotions*

An objective indicator of psychological processes that is clearly associated with emotional states is psychophysiological autonomic arousal (Ax, 1953; Herpertz et al., 1999; Lang, 1979; Levenson, 1992; Yoon-Ki et al., 2005). Evidence has existed for some time to indicate that different states of affect are associated with different profiles of psychophysiological response. For instance, Ax (1953) conducted a number of classic studies indicating that emotional states invoked through artificial interactions, such as anger and fear, could be differentiated on the basis of Autonomic Nervous System (ANS) response patterns. As research has indicated there is a correspondence between ANS arousal and affective states, it is proposed that the reliability of assessments of psychological processes occurring during sex offending would be enhanced by incorporating psychophysiological measures.

#### *4.2.2 Dissociations between Objective and Self-report Measures of Emotions*

However, research examining clinical populations with disorders, such as, Conduct Disorder and Posttraumatic Stress Disorder, has indicated that there is a dissociation between emotional and physiological responses. In such populations, research has indicated that self-reported responses and autonomic responses to affective stimuli differ considerably (Herpertz et al., 2005; McDonagh-Coyle et al., 2001). It has been argued that such findings point towards the need to measure emotion using multiple response domains (Herpertz et al., 2005). In agreement with this view, it is proposed that objective measures of psychological processes should be

used in conjunction with, not in replacement of, self-reported psychological processes. There is clearly a strong empirical basis for arguing that assessment of processes occurring during sex offending should include both self-report and objective psychophysiological measurement.

#### 4.3 Barriers to Measuring Peri-offence Psychophysiological Responding

There are nonetheless obvious ethical barriers to incorporating in-vivo psychophysiological measurement of the processes occurring during sex offending. Therefore, in order to examine the psychophysiological processes occurring during sex offending, it is necessary to rely on by-proxy, retrospective measures. An obvious by-proxy, retrospective measure of psychophysiological processes is self-report. However, it is undesirable to rely solely on offenders' recall of their psychophysiological responses occurring during the commission of sex offences. To rely exclusively on self-report of such responses would pose exactly the same limitations that the inclusion of psychophysiological measurement was intended to overcome. Besides, research has indicated that there may be a dissociation between self-reported and psychophysiological measures of emotion in clinical populations (Herpertz et al., 2005; McDonagh-Coyle et al., 2001).

#### 4.4 Alternative Assessments of Peri-offence Psychophysiological Processes

A possible assessment solution would involve the direct measurement of psychophysiological responding to the memory of sex offending acts. There is abundant empirical support for the validity of indirectly assessing peri-offence processes by means of measuring responses to memories of events. Research has indicated that mental imagery, thoughts and emotions result in measurable and direct psychophysiological responses (Bolliet, Collet, & Dittmar, 2005; Lang, 1979;

Sharpe, 2004; Yoon-Ki et al., 2005). Lang (1979) presented evidence indicating that instructional varying of emotional content in imagery produced measurable changes in psychophysiological responding.

In support of Lang's (1979) early evidence, recent research indicated that ANS responses, such as electrocardiogram, galvanic skin response, skin temperature, and respiration, varied according to changes in emotions produced through instructional imagination (Yoon-Ki et al., 2005). Supportive of the notion that thoughts result in measurable ANS responses, recent research demonstrated comparable ANS reactions occurred during actual and imagined movements involved in the preparation phase of complex motor skills (Bolliet et al., 2005).

Nevertheless, research has indicated that the content of imagery scripts may be manipulated to enhance the validity and strength of ANS responses. Research has indicated that psychophysiological responding differs based on the personal relevance of imagery and the emphasis placed on stimuli versus responses. With regard to personal relevance, research has indicated that more appropriate and realistic responses to imagery content are produced through using personalised imagery depicting actual events that have been experienced by the individual rather than standard imagery where individuals are asked to imagine an event they have not experienced (Pitman et al., 1987). Pertaining to the emphasis used, research has indicated that imagery emphasising an active response to events results in greater psychophysiological responding than does imagery focusing exclusively on stimulus detail (Hirota & Hirai, 1986). Therefore, it is clearly desirable to utilise personalised imagery emphasising active responses to events.

Thus, the following discussion will describe a guided imagery methodology that employs both psychological and psychophysiological measurement of responses to imagery depicting active responses to personally experienced events (Haines et al.,

1995). It is proposed that a guided imagery methodology would be well-suited for investigating the psychological process occurring during sex offending.

#### 4.5 Guided Imagery Assessment of Peri-offence Processes

A personalised guided imagery methodology has been developed that incorporates measurement of ANS psychophysiological responses in addition to self-reported emotional reactions to events of interest (Haines et al., 1995). The advantage of taking concurrent measures of psychological and psychophysiological responses is that the meaning of any given psychophysiological response may be interpreted. The purpose of a guided imagery methodology is to examine the course of psychological and psychophysiological processes occurring across time in response to the memory of personally experienced events (Brain, Williams, & Haines, 1996; Haines et al., 1995; Williams, Haines, & Brain, 1995).

##### *4.5.1 Description of a Guided Imagery Methodology*

The first step of a guided imagery examination involves the reconstruction of a personally experienced event of interest through detailed interviewing. This reconstruction is then presented to the individual using a structured imagery script that captures the details of the event in stages. The individual's psychophysiological and psychological responses to the various stages of the event captured by an imagery script are then measured (Haines et al., 1995).

The number of script stages varies as a function of the nature of the behaviour under investigation. For behaviours that involve a rapid resolution, such as self-mutilation, a four-staged guided imagery methodology is commonly employed (e.g., Brain, Haines, & Williams, 1998, 2002; Haines et al., 1995). In contrast, a five-staged guided imagery methodology has been typically used to describe acts, such as

homicide, that unfold more slowly (e.g., Haines, Williams, Sale, & Glading, 2001; Williams, Haines, Sale, & Glading, 2001). The five-staged imagery scripts describe the environment and setting in which the event took place (the scene), the lead-up to the event (the approach), the occurrence of the actual event (the incident), the moments transpiring immediately after the event (the consequence) and the resolution or end of the event (the resolution).

#### *4.5.2 Applications of Guided Imagery*

A personalised guided imagery methodology has been used extensively to examine the psychophysiological processes occurring in response to various anxiety disorders and anxiety-related behaviours. The anxiety disorders and related behaviours examined include self-mutilation (Brain et al., 1998, 2002; Haines et al., 1995), nail biting (Wells, Haines, Williams, & Brain 1999), bulimia (Williams et al., 1995) and obsessive-compulsive disorder (Haines, Josephs, Williams, & Wells, 1998). In forensic settings, guided imagery has also been used to examine the psychological and psychophysiological processes associated with homicide (Glading, Williams, & Haines, 2001; Glading, Williams, Haines, & Sale, 2001; Haines & Williams, 2002; Haines et al., 2001; Haines, Williams, Sale, Glading, & Davidson, 2002; Williams & Haines, 2001; Williams, Haines, & Casey, 2000; Williams et al., 2001).

#### *4.5.3 Benefits of Guided Imagery*

Clearly, there are many benefits in examining pertinent psychological events using a guided imagery methodology. It has been noted elsewhere that a guided imagery methodology permits an examination of processes associated with behaviours that are typically difficult to study experimentally (Haines et al., 1995).

Furthermore, it has been argued that, by structuring the imagery in identifiable stages, it is possible to simulate or generate the changes expected to occur in psychological and psychophysiological processes during the course of an event (Haines et al., 1995). Therefore, such a methodology is well-equipped to examine changes in the emotions, thoughts and motivations described in the nine phases of Ward and Hudson's (1998a, 2000a) Self-Regulation model.

In addition to this, research has demonstrated that a guided imagery methodology may be applied to examine different profiles or types of offences. For instance, guided imagery has proved to be useful in assessing psychophysiological and psychological profiles associated with the different motivations for homicide (Williams et al., 2001). Williams and colleagues (2001) found that different arousal profiles were associated with homicides committed for expressive versus instrumental motives.

The application of a guided imagery methodology in examining arousal profiles associated with sex offending has also been explored. Research has recently investigated psychological and psychophysiological responses to the memory of sex offending in two case studies of paedophilic homicide (Williams, Haines, Wade-Ferrell, & Spiranovic, Submitted). The two homicide perpetrators were found to differ considerably on a number of psychological variables but most notably psychopathy. Comparison of psychological and psychophysiological responses to the memory of the paedophilic homicide demonstrated there was considerable variation in response between the psychopathic and non-psychopathic offenders to the stage of the script depicting the commission of the sex offence.

Evidently, this research suggests a guided imagery methodology may be useful in examining different pathways to offending. Most notably, the guided imagery methodology could be used to strengthen the reliability of offence process

models by incorporating objective as well as subjective measures of peri-offence processes. By incorporating concurrent measures of psychological and psychophysiological responses, psychophysiological responses to recollections of sex offending may be meaningfully interpreted.

#### 4.6 The Deviance and Uniqueness of Peri-sex Offence Processes

This application of guided imagery to examine sex offence processes would need to address the previously cited second major limitation of the offence process models developed thus far. This noted limitation is that the offence process models developed are limited in meaningfulness as they have not established whether the pathways to sex offending are deviant and unique to sex offending. The deviancy or normality of various peri-offence processes would have implications for understanding the different origins to sex offending and for treating subtypes of sex offenders. Indeed authors of offence process models (i.e., Polaschek et al., 2001) have argued that information regarding self-regulation deficits demonstrated by offenders in other aspects of their lives and relationships would be useful for treatment. It is possible that the certain pathways to sex offending may involve processes that are unique to sex offending whereas other pathways may involve processes also evident in legally consensual sexual encounters.

##### *4.6.1 Examination of Deviant and Non-deviant Sexual Experiences*

In order to explore issues regarding the deviance or normality of various processes, a normal point of comparison is needed. A normal point of comparison would involve an examination of offenders' responses to both deviant and non-deviant sexual experiences.

Research has demonstrated the value of examining non-deviant sexual responses in addition to deviant sexual responses in sex offenders. For instance, phallometric research has indicated that the relative response to deviant versus non-deviant erotic stimuli is predictive of sexual and non-sexual recidivism in child sex offenders (Hanson & Bussière, 1996, 1998). Therefore, an examination of responses to non-deviant sexual stimuli would provide useful information to aid in assessments of sex offenders.

#### *4.6.2 Need to Establish What Constitutes Normal Sexual Responding*

In support of this view, some researchers have contended that the meaning of inappropriate or deviant sexual responses is unclear given that research has not established what would constitute a normal or non-deviant sexual response (Marshall, Laws, & Barbaree, 1990). Certainly, within the sex offender literature, it has been noted that there is little understanding of what constitutes normal sexual development (Trivits & Reppucci, 2002). Many have argued that, as a result of deficiencies in a number of aspects of their lives, the assessment and treatment of sex offenders requires an understanding and development of healthy sexual attitudes and behaviours (Crawford, 1979; Price, 2003). A focus on healthy sexuality and relationships should be an essential component of offender assessment and treatment given empirical research has suggested that sex offenders demonstrate deficits in social skills (e.g., see Marshall, 1996).

#### *4.6.3 Examination of Responding to Consensual Sexual Encounters*

Although the majority of sex offender research has focused exclusively on examining deviant sexual behaviours, there are some notable lines of research that have examined and compared responses to sexually deviant and non-deviant acts.



Such comparisons are evident in phallometric assessments of sexual preference. Phallometric assessments involve the measurement of erectile responses of offenders during visual (Looman et al., 2001) or verbal (Miner, West, & Day, 1995) presentation of deviant as well as non-deviant standard erotic stimuli. These responses to the stimuli are then averaged across stimulus categories to give an index of sexual arousal to deviant stimuli versus non-deviant stimuli. This research has been applied to offender risk assessments, as meta-analytic findings have confirmed that deviant sexual arousal to children is the single best predictor of sexual recidivism (Hanson & Bussière, 1996, 1998). This research highlights the importance of comparing responses to both deviant and non-deviant sexual stimuli, as it is the relative response to deviant and non-deviant stimuli that is predictive of sexual recidivism. Research investigating the validity of phallometric assessments will be outlined in detail in Chapter Seven.

However, phallometric assessments do not capture the dynamic nature of sexual responses nor the offender's personal sexual experiences. Research involving an in-vivo examination of the psychophysiological processes occurring during normal consensual sexual encounters has indicated that sexual responses are dynamic in nature (Masters & Johnson, 1966). As such, phallometric assessments would be unlikely to further understandings of the processes occurring during sex offending.

A series of studies was conducted by Masters and Johnson and first published in 1966 examining autonomic physiological responding (e.g., heart rate, respiration, perspiration and muscle tension) of community participants during engagement in consensual sexual activity in a laboratory setting. Masters and Johnson (1966) divided the physiological aspects of the human sexual response into four stages: (1) the excitement phase; (2) the plateau phase; (3) the orgasmic phase; and (4) the resolution phase.

Masters and Johnson's studies indicated, as would be expected, that autonomic physiological responses changed across the stages of the sexual response cycle. In particular, physiological responses were found to increase progressively and peak in intensity during the late plateau and orgasmic stages before declining in the resolution stage. Clearly then, psychophysiological responding during sexual activity involves a dynamic process that can only be fully captured by examining the development of the response over time.

In addition, researchers have recognised that sexual responses involve not only physical arousal but also cognitive and emotional arousal (Koukounas & McCabe, 2001; Rowland, 1999). Therefore, following the research of Masters and Johnson, other researchers began using psychological scales to also measure participants' subjective affect during sexual arousal. Such research has indicated that in non-deviant, sexually functional male and female participants, increases in genital and sexual arousal are associated with increases in positive affect (Koukounas & McCabe, 1997, 2001; Mitchell, DiBartolo, Brown, & Barlow, 1998; Nobre et al., 2004). Clearly then, an examination of processes occurring during sex offending requires an assessment of the development of physiological and psychological responses during the course of the offence. It would obviously be beneficial for such an assessment to also consider how these processes differ to or, are similar to, those occurring during non-deviant sexual interactions.

#### *4.6.4 Guided Imagery Examination of Consensual Sexual Experiences*

Although the guided imagery research has not explored the processes occurring during consensual sexual experiences, the methodology could certainly be applied in such an examination. A notable benefit of a guided imagery methodology is that an individual's pattern of response to a range of personally experienced events

may be compared to determine whether the observed arousal and psychological patterns of response are unique to the event of interest or are evident in other events and situations experienced by the individual. Thus, a guided imagery methodology would incorporate both objective and subjective components of responses to consensual sexual encounters. Furthermore, a guided imagery methodology would allow for comparison of responses to deviant and non-deviant sexual acts. Therefore, a guided imagery methodology could be employed to compare the responses of offenders and non-offending controls to deviant and non-deviant sexual acts. Clearly then, a guided imagery methodology may be used to objectively address questions regarding the uniqueness of processes occurring during sex offending.

#### 4.7 Study One: Psychophysiological Responding to Sexual Offence and Consensual scripts in Offenders and Controls

The aim of Study One is to use a five-staged guided imagery methodology to ascertain whether the various processes occurring during sex offending are uniquely deviant. To achieve this aim, the responses of child sex offenders (Offenders) and non-offenders (Controls) to deviant and non-deviant sexual stimuli will be compared. The deviant sexual stimuli will depict illegal sexual activity with a child (CSA script) whereas the non-deviant sexual stimuli will depict consensual sexual activity between adults (Consensual script).

To address potential confounding effects of sexual dysfunction (e.g., see Rowland, 1999) and psychological response tendencies (e.g., Fisher, Byrne, White, & Kelley, 1988; Janssen, Vorst, Finn, & Bancroft, 2002a), Offenders and Controls will be compared on measures assessing sexual dysfunction, sexual inhibition proneness and sexual excitation proneness. Consistent with previous studies that

have indicated similar levels of sexual dysfunction in sex offenders and controls (Lanyon, 1993), no significant differences between Offenders and Controls in sexual dysfunction are predicted.

With regard to sexual response tendencies, research has typically examined the effects of such tendencies on responses to coercive sexual stimuli in non-offending males (Janssen et al., 2002a; Wilson, Holm, Bishop, & Borowiak, 2002). This research has indicated that higher sexual excitation response tendencies are associated with higher sexual arousal responses to both coerced sex and consensual sex (Janssen et al., 2002a; Wilson et al., 2002). Given the generalised nature of this potentially confounding variable, no significant differences between Offenders and Controls are predicted for scores on the Sexual Excitation Scale.

In contrast, research has demonstrated that individuals who reported low sexual inhibition in response to concerns of negative consequences of sexual behaviour demonstrated higher sexual arousal to coercive sexual stimuli (Janssen et al., 2002a). Furthermore, individuals who reported high sexual inhibition response tendencies due to concerns of performance failure were more likely to demonstrate misperceptions of victim enjoyment in scenarios depicting sexual coercion (Wilson et al., 2002). Therefore, it is predicted that Offenders will receive significantly higher scores for sexual inhibition due to concerns of performance failure (SIS1 Scale) whereas Controls will report significantly higher scores for sexual inhibition due to consequences of performance (SIS2 Scale).

With regard to expected differences between Offenders and Controls in response to the CSA and Consensual scripts, findings from phallometric studies would suggest that they will differ in relative responses to the two scripts. Phallometric research, although not always consistent (i.e. Barbaree & Marshall, 1989), has indicated that child sex offenders, as a group, demonstrate greater

responding to deviant sexual stimuli when compared with non-sexual offenders (Freund, 1965, 1967a, 1967b; Murphy et al., 1986; Quinsey & Chaplin, 1988; Quinsey, Steinman, Bergersen, & Holmes, 1975). Given that psychophysiological responses correspond with changes in sexual arousal (e.g., Masters & Johnson, 1966), it is firstly predicted that Offenders will report significantly greater sexual arousal and demonstrate significantly higher psychophysiological responses to the CSA script when compared with Controls.

In addition to differences in self-reported sexual arousal and psychophysiological responses, it also expected that there will be differences between groups in positive and negative affect. Research has indicated that increases in sexual arousal are associated with increases in psychophysiological arousal (e.g., Masters & Johnson, 1966) as well as positive affect (Koukounas & McCabe, 1997, 2001; Mitchell et al., 1998; Nobre et al., 2004). Therefore, it is predicted that the Offenders will report significantly higher ratings of positive affect in response to the CSA script when compared with the Controls who, in turn, will report significantly higher ratings of negative affect.

Consistent with findings that child sex offenders are more sexually deviant than non-offenders (Freund, 1965, 1967a, 1967b; Murphy et al., 1986; Quinsey & Chaplin, 1988; Quinsey et al., 1975), it is expected that there will be significant differences between the groups in the pattern of response to the CSA and Consensual scripts. Sexual deviance is defined by equal or greater sexual arousal to deviant compared to non-deviant erotic stimuli. Therefore, it is hypothesised that the Controls will demonstrate significantly higher psychophysiological responding and report significantly higher ratings of sexual arousal and positive affect to the Consensual script when compared with the CSA script. Consistent with the notion that the Offenders will be more sexually deviant than the Controls, it is hypothesised

that Offenders will either demonstrate no significant differences between the CSA and Consensual scripts or will demonstrate higher psychophysiological responding and ratings of sexual arousal and positive affect in response to the CSA script.

Predictions regarding differences between Offenders and Controls in response to the Consensual script are more tentative, as sexual deviance need not imply that responses to both deviant and non-deviant sexual stimuli are abnormal. Indeed, as noted previously, the sex offender literature has focused almost exclusively on deviant sexual behaviour and little is known about the development of “normal” sexual behaviours of sex offenders (Trivits & Reppucci, 2002). Furthermore, as has been noted in the preceding chapter, researchers concerned with developing offence process models have suggested that the problematic processes demonstrated by sex offenders are specifically related to offending (Ward, Hudson et al., 1995). This lack of concern with normal sexual behaviours in the literature would suggest that offenders’ problematic behaviours are not linked with difficulties in adult sexual relationships. Therefore, it is tentatively predicted that Controls and Offenders will not differ significantly in response to the Consensual script, as they will both demonstrate a non-deviant response.

With regard to what constitutes a non-deviant sexual response, previous research has indicated that psychological and psychophysiological processes occurring during sexual acts vary during the course of such acts (Masters & Johnston, 1966; Polaschek et al., 2001; Ward, 2000; Ward & Hudson, 1998a, 2000a). As noted previously, Masters and Johnson (1966) found that physiological responses progressively increased and peaked in intensity during the late plateau and orgasmic stages before declining in the resolution stage. In the current study, the CSA and Consensual guided imagery scripts will capture the course of the events in stages,

with the Approach (stage two) and Incident (stage three) respectively likened to Masters and Johnson's descriptions of the plateau and orgasmic phases.

Therefore, it is expected that psychological and psychophysiological responding to the CSA and Consensual scripts will differ significantly across stages. More specifically, it is predicted that both Offenders and Controls will demonstrate significantly higher psychophysiological responding during the Consensual script to the Approach (stage two) and Incident (stage three) stages compared with the Scene (stage one), Consequence (stage four) and Resolution (stage five) stages. Assuming both groups are comprised of equally sexually functional males, it is also predicted that there will be a corresponding increase in ratings of positive emotions and a reduction in ratings of negative emotions during the Approach and Incident stages of the Consensual script.

As discussed in preceding sections, it was hypothesised that Offenders will demonstrate greater psychophysiological responding to the CSA script than Controls due to greater sexual deviance. Consistent with this hypothesis, it is also expected that they will demonstrate a relatively normal sexual response cycle in response to the memory of committing a child sex offence. Consequently, it is hypothesised that Offenders will demonstrate greater psychophysiological responding as well as positive affect during the CSA script in response to the Approach (stage two) and Incident (stage three) stages compared with the Scene (stage one), Consequence (stage four) and Resolution (stage five) stages.

Due to individual differences and the use of a standard CSA script for Controls, it is predicted that there will be no significant differences in psychophysiological and psychological responding between the stages of the CSA script for Controls. Furthermore, no differences between groups in response to the

Neutral script are predicted given that the Neutral script will depict emotionally neutral events unrelated to sex offending and sexual behaviour.

## 4.8 Method

### *4.8.1 Participants*

Twelve child sex offenders who had been convicted of at least one sexual offence against a child were recruited through the Department of Justice and Industrial Relations (DJIR) from H.M. Prison Risdon and Community Corrections. Offenders were selected to participate if their sex offence against a child, who in Tasmanian law is a person aged 16 years or younger, could be defined as a contact sexual offence.

Incarcerated offenders who had committed a child sex offence involving physical contact were initially approached by staff of H.M. Prison Risdon's Prisoner Support Unit to ascertain whether they would be willing to meet with researchers from the University of Tasmania to discuss their possible involvement in a research project investigating psychological factors occurring during sex offending. Willing participants met with the primary investigators to discuss the research project in-depth and were supplied with the study's information sheet and consent form (see Appendix A). This recruitment procedure resulted in 11 offenders agreeing to participate.

One further participant was obtained through referral by the Department of Justice and Industrial Relations' Community Corrections. This person had recently been released from prison and was on parole. This interested participant met with one of the primary investigators to discuss the research project in-depth. This twelfth offender agreed to participate upon discussing the project with the investigator and reading the information sheet supplied.



Thus, the recruited offender sample was comprised of 11 (92%) incarcerated offenders and one offender (8%) on parole. All offenders were untreated at the time of participation. With regard to their adult relationships, 9 of the 12 offenders (75%) reported they had lived in a marriage like relationship with another adult. The mean age of offenders was 54.8 years ( $SD = 13.1$ ) with an age range of 25 to 74 years.

This sample of child sex offenders was considerably diverse with respect to their offence histories. Two of the offenders (16%) had a history of prior convictions for non-sexual violence whereas four offenders (34%) had a history of prior convictions for contact sex offences and two (16%) had prior convictions for non-contact sex offences. Nine of the twelve offenders (75%) had committed offences involving exclusively extra-familial victims, one offender (8%) had committed offences exclusively against intra-familial victims and two offenders (17%) had committed offences against both related and unrelated victims. Six of the twelve offenders had offended exclusively against female victims (50%), five had offended exclusively against males (42%) and one had offended against both males and females (8%). With regard to victim age, five offenders (42%) had committed sexual offences exclusively against victims younger than 13 years of age, two had offended exclusively against victims aged 13 to 16 years (16%) and five (42%) had offended against victims in both age categories. One offender (8%) reported that they had never engaged in consensual adult sex.

Twelve non-offending age-matched community controls were recruited through advertisements placed on the noticeboards of various community organisations and through advertisements with various Humanities-oriented disciplines of the University of Tasmania. Participants were offered either \$20 to reimburse them for their costs, or in the case of undergraduate psychology students, 3-hours course credit for their involvement in the project.

Control participants were selected, on the basis of their age, to match the ages of the offenders as close as possible and controls were excluded if they had ever committed a sex offence. The mean age of controls was 46.1 years ( $SD = 10.7$ ) with an age range of 29 to 61 years. Eight of the controls (66%) were University of Tasmania students and the remaining 4 (33%) were employed full-time. With regard to their adult relationships, 10 of the controls (83%) reported that they had lived in a marriage like relationship with another adult.

The project received approval from the Human Research Ethics Committee (Tasmania) Network, the DJIR and H.M. Prison Risdon. Participants were supplied with information sheets and written informed consent was obtained from all participants (see Appendices A and B respectively for copies of these materials supplied to Offenders and Controls).

#### *4.8.2 Materials*

*Scales.* Visual analogue scales (VASs) (McCormack, de Horne, & Sheather, 1988) were administered in relation to each stage of each script to assess psychological responses to imagery using ten bipolar scales: not angry-angry, not anxious-anxious, not agitated-agitated, not guilty-guilty, not happy-happy, not confident-confident, not sexually aroused-sexually aroused, not avoiding sex-avoiding sex, not planning sex-planning sex, and not in control-in control. VASs were also used to assess the accuracy of script content (close-not close) and vividness of imagery (clear-not clear). The VASs measure subjective responses on a scale from zero to one hundred percent with a score of 50 percent indicative of a more neutral response. Low (i.e., 0 percent) and high scores (i.e., 100 percent) on a VAS are indicative of either a complete absence or strong endorsement of the emotion or state described. The VASs used in this study are attached in Appendix C.

*Questionnaires.* The Multiphasic Sex Inventory (MSI: Nichols & Molinder, 1984) is a pencil-paper inventory designed to assess the psychosexual characteristics of sex offenders in terms of sexually deviant acts, behavioural aspects of the offence, cognitive processes involved in offending and use of deception. The MSI is comprised of 300 true/false items that combine to form 20 scales. The individual scales of the MSI offer moderate to high levels of internal reliability (Kalichman, Henderson, Shealy, & Dwyer, 1992), test-retest reliability (Nichols & Molinder, 1984; Simkins, Ward, Bowman, & Rinck, 1989), convergent validity (Kalichman, Henderson, Shealy, & Dwyer, 1992) and criterion-related validity (Nichols & Molinder, 1984).

The MSI's subtest of eight critical items for sexual dysfunction (refer to appendix D for a copy of the MSI critical items) were used to compare the extent of sexual dysfunction in the two groups. The MSI's eight critical items are derived from four scales assessing sexual dysfunction (Sexual inadequacies, Premature ejaculation, Physical disabilities, Impotence). Endorsement of any of the eight critical items is considered an indication of sexual dysfunction.

It should be noted that while the current version of the MSI is the MSI-II made available by Nichols and Molinder in 1996, the original 1984 version was used in the present study. The MSI was easily accessed at the time of commencing the investigation. It should be noted that only the critical items for sexual dysfunction were extracted from the MSI and used in this study. There is no fundamental difference between the critical items in the MSI and the MSI-II.

The Sexual Inhibition and Sexual Excitation Scales (SIS/SES Questionnaire: Janssen, Vorst, Finn, & Bancroft, 2002b) were used to indicate tendencies to respond to various situations with either sexual inhibition or sexual excitation. The majority of the 45 items of the SIS/SES Questionnaire were written in an if-then form. The if-

statements describe a potentially exciting or inhibiting event and the then-statements describe the emergence or loss of a sexual response. Each statement was rated on a 4-point scale, ranging from 1= strongly agree; 2 = agree; 3 = disagree; and 4 = strongly disagree. There are three scales: The Sexual Excitation Scale; The Inhibition due to threat of Performance Failure scale, labelled SIS1; and the Inhibition due to threat of Performance Consequences scale, labelled SIS2.

Janssen et al (2002b) found a close-to-normal distribution of scores on each of the three scales, indicating that middle range scores are normative or adaptive response tendencies whereas high and low scores on the scales are less common and potentially problematic. Janssen and colleagues have established the psychometric properties of the SIS/SES scales. Test-retest and internal reliability ranged from moderate to high across three samples (Janssen et al., 2002b). When compared with other measures, the scales offered adequate discriminant and convergent validity (Janssen et al., 2002b). The validity of the SIS/SES scales in predicting sexual responses to threatening and non-threatening erotic stimuli was also demonstrated (Janssen et al., 2002a). Please see Appendix E for a copy of the SIS/SES Questionnaire.

*Imagery Scripts.* On the basis of information provided by the participants during a structured interview, imagery scripts were constructed that described a neutral event such as making a hot drink (Neutral script), a typical or recent legally consensual sexual experience with another adult (Consensual script) and a typical or recent offence depicting child sexual assault (CSA script). However, the CSA script for Controls was a standard script. A copy of the standard CSA script is attached in Appendix F as an example of the content and format of the imagery scripts used. The scripts were divided into five stages: setting the scene (the environment in which the crime, consensual experience or neutral event took place), approach (the lead-up

to the event), the incident (description of the actual event), the consequence (what occurred immediately after the event) and resolution (the resolution or end of the event).

#### *4.8.3 Apparatus and Psychophysiological Recording*

Multimodal psychophysiological recordings of Offender responses were collected using a Toshiba laptop computer linked to a Power Lab 4/20 portable data acquisition system using Chart 5.0.2 software. Similarly for Controls, multimodal psychophysiological recordings were taken using Chart 5.0.2 software on a PC linked with a Powerlab 8-channel Data Acquisition System.

Electrocardiograph (ECG) was measured using adhesive Unilect high resolution Ag/AgCl electrodes. Two electrodes were fitted to each side of the torso and a third was placed on the mastoid process as the earth reference. Mean heart rate (HR) measured in beats per minute was obtained by integrating ECG recordings. Respiration (RESP), calculated as breaths per minute, was measured using a pneumotrace respiration transducer fitted to the upper torso and secured with a Velcro strap. Skin conductance level (SCL) for Controls was measured using two Ag/AgCl electrodes placed on the tip of the first and third fingers of the non-dominant hand and secured using surgical tape. For Offenders, two stainless steel finger electrodes were secured with Velcro straps on the middle of the first and third fingers of the non-dominant hand.

#### *4.8.4 Procedure*

In an initial session conducted by the primary experimenter, participants were informed that they would be asked to discuss the personally experienced events described in the study's information sheet. They were also informed that these discussions would be recorded on audio-tape to assist in the accurate construction of imagery scripts. The procedures for the second session, outlined in depth in the information sheet, were also briefly described to participants. The interviews were commenced upon obtaining informed consent and ensuring participants understood the procedures and felt that their questions had been satisfactorily answered.

Offenders were firstly interviewed with regard to their sex offence history in order to classify them according to the sex, age and relationship of their victims. This information was also obtained from official case file data and where a discrepancy existed between offender self-report and official case file data, the latter data were used.

All participants were interviewed by the primary investigator to obtain the information necessary to construct the three imagery scripts. However, no interview with Controls was necessary to construct the standard CSA script. Participants were asked to describe how each of the events unfolded and were periodically asked to describe external events occurring, their behaviour, their cognitions and emotions at each stage of the event. This interview was recorded on audiotape to aid the primary investigator in constructing the imagery scripts.

At the end of this first session, participants were supplied with a copy of the SIS/SES Questionnaire as well as the 8 critical items of the MSI to complete before the second session. However, participants were provided with the option to have the primary experimenter assist in the completion of these measures.

In a second session conducted after construction of the imagery scripts, the primary investigator applied the electrodes and measurement devices to the participants and explained the procedure for this second session. Participants were informed that the primary experimenter would read imagery scripts to them that described the events discussed in the initial interview. They were also informed that they would be asked to visualise the scenes depicted in each of the imagery scripts while a second experimenter took recordings of their physical responses. They were told that, at the end of each script, they would be requested to complete scales measuring their emotional reactions to each of the stages described. Participants were encouraged at this stage to discuss any concerns or questions they may have with the primary experimenter.

Before each script administration, participants were instructed to close their eyes and to relax while recordings were taken of their psychophysiological responding during a 60 second baseline period. Participants were then instructed to keep their eyes closed and to imagine each scene vividly as the script was verbally administered by the first experimenter. Participants were also instructed to open their eyes and stop imaging each scene when requested.

The imagery scripts were administered in counterbalanced order. Each stage of each script lasted for approximately 60 seconds followed by a 10-second interval before the next stage in which the participant was instructed to stop imaging the scene and open their eyes. A second experimenter, seated at the computer, obtained and monitored recordings of participants' psychophysiological responding during the 60-second baseline periods as well as during each stage of each script.

After completion of each script, key elements from each stage were repeated prior to participants completing the VASs for each stage of imagery. The primary purpose for taking concurrent measures of psychological and psychophysiological

responses was to aid the interpretation of psychophysiological responses. Upon completing all measures, participants were fully debriefed and were provided with the option of having their results explained once they had been analysed.

#### *4.8.5 Design*

Study 1 utilised a single-between groups design to examine differences between Offenders and Controls in mean age as well as mean scores on the psychometric measures. In addition, a [2] X (3) X (5) mixed factorial design with two repeated measures was utilised in analysing psychophysiological and psychological response data. The between subjects factor was group (Offenders, Controls). The within subjects factors were script type (Neutral, Consensual, CSA) and script stage (Scene, Approach, Incident, Consequence, Resolution), with counterbalancing of script order. The dependent variables were psychophysiological response (HR, Resp, SC) and VAS scores (e.g., not anxious-anxious, not happy-happy).

#### *4.8.6 Data Transformation and Scoring*

Psychophysiological measures were taken from a 30 second period of each stage of each script and the preceding baseline to allow for comparable scoring periods. Consistent with previous research (e.g., Haines et al., 1995), the scoring period was based solely on script content and most commonly occurred approximately 15-20 seconds into each script stage.

#### *4.8.7 Data Analysis*

Unpaired t-tests were used to analyse differences between groups in mean age as well as mean scores on the MSI's 8 critical items and the Sexual Excitation and



Sexual Inhibition scales. Separate repeated measures ANOVAs with Huynh-Feldt corrections, where appropriate, were performed on the psychophysiological measures and VAS ratings. The ratio of cases to dependent variables precluded the reliable use of MANOVA (Tabachnick & Fidell, 2001). Significant effects were further analysed with Fisher's least significant difference post hoc tests. For all analyses, a significance criterion of 0.05 was adopted.

#### 4.9 Results

With regard to the recent or typical child sex offence reported by Offenders, the mean time elapsed since the offence was 11.74 years ( $SD = 12.28$ ), with a range of 0.83-33 years. In addition, three (25%) of the Offenders reported using alcohol or illegal substances at the time of committing the offence and penetration occurred in five (41%) of the cases. Other details pertaining to the Offenders' pattern of offending and offence processes will be discussed further in the following sections and in detail in Study Two.

##### *4.9.1 Demographic and Questionnaire Data*

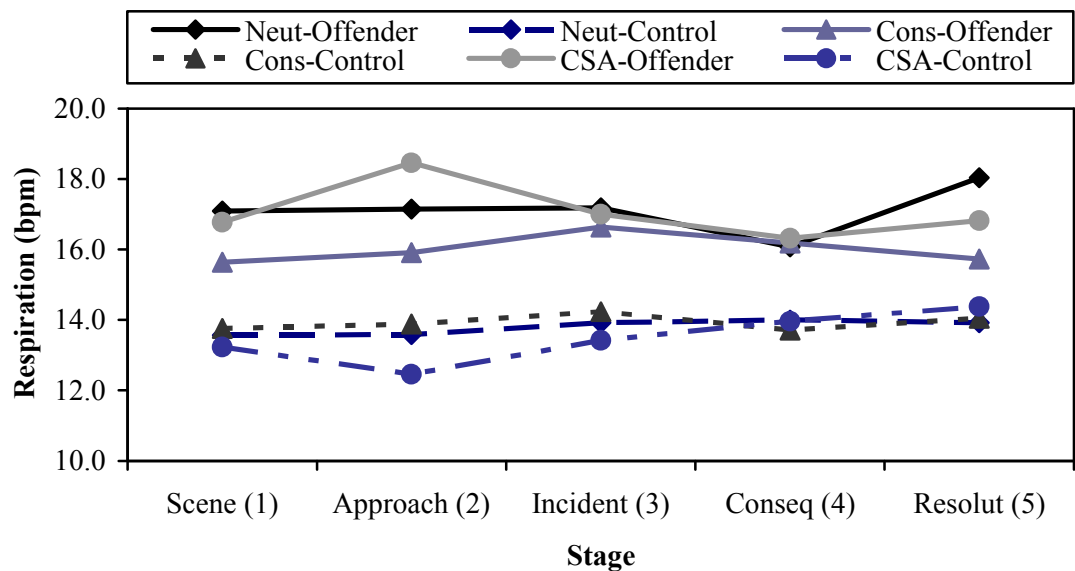
As shown in Table 1, there was no significant difference in mean age between the Offenders and Controls. Furthermore, there was no significant difference between Offenders and Controls in the mean number of MSI critical items endorsed. With regard to mean scores on the Sexual Excitation and Sexual Inhibition scales, there were no significant differences between Offenders and Controls on the Sexual Excitation Scale and the Inhibition due to threat of Performance Consequences Scale (SIS2). However, Offenders scored significantly higher than Controls on the Inhibition due to threat of Performance Failure Scale (SIS1).

**Table 1.** Unpaired t-test comparisons of differences between Offenders and Controls in mean age and scores on the MSI and SES/SIS Scales.

Dependent variable	Subscale	t	df	p	Mean (SD)			
					Offenders		Controls	
Age (years)		1.8	22	ns	54.8	(13.1)	46.1	(10.7)
MSI 8 critical items		1.1	22	ns	1.7	(2.0)	0.9	(1.2)
SES/SIS	SES	1.8	21	ns	42.5	(9.4)	49.2	(8.3)
	SIS1	3.5	21	<.01	33.3	(5.8)	24.7	(5.9)
	SIS2	1.6	21	ns	33.7	(4.8)	30.1	(5.7)

#### 4.9.2 Psychophysiological Responses to Imagery

The VAS dimensions assessing the clarity of the image and accuracy of script content received mean ratings within acceptable limits (see Appendix G for descriptive statistics). Between groups comparisons of the script x stage psychophysiological responses to imagery were performed. There were no significant interactions or main effects for heart rate and skin conductance level. However, there was a significant script x stage x group interaction for Respiration,  $F(8,168) = 2.53$ ,  $MSE = 5.34$ ,  $p < .03$ , as shown in Figure 1. The means and standard deviations for each stage of each script for each group for all of the psychophysiological responses are presented in Appendix H.



**Figure 1.** Means for significant script x stage x group interaction for respiration rate (breaths per minute)

Follow-up comparisons were made between groups for each stage of each script. The results for the unpaired t-tests are displayed in Table 2. Relative to Controls, the respiration rate of Offenders was significantly higher for the first three stages and the final stage of the Neutral script. Mean differences in respiration rate between the two groups for each stage of the Consensual script were not significant. However, the respiration rate of Offenders was significantly higher when compared with Controls for the Scene, Approach and Incident stages of the CSA script.

Post hoc comparisons of scripts differences in respiration rate at each stage for the Offenders and Controls were conducted and these results are presented in Table 3. For Offenders, respiration rate at the Approach stage was significantly higher in the CSA script compared to the Consensual script. Furthermore, at the Consequence stage for Offenders, respiration rate was significantly higher in the Neutral script compared to the Consensual script. For Controls, respiration rate at the Approach stage was significantly higher in the Neutral and Consensual scripts relative to the CSA script.

**Table 2.** Unpaired t-tests of script stage differences in respiration rate (breaths per minute) between Offenders and Controls.

<b>Script</b>	<b>Stage</b>	<b>T</b>	<b>p</b>	<b>Differences in RESP</b>
Neutral <i>df</i> = 22	Scene	2.5	<.03	Offend>Controls
	Approach	2.9	<.009	Offend>Controls
	Incident	2.7	<.002	Offend>Controls
	Conseq	1.7	ns	Offend>Controls
	Resolut	3.5	<.003	Offend>Controls
Consensual <i>df</i> = 21	Scene	1.3	ns	
	Approach	1.5	ns	
	Incident	1.8	ns	
	Conseq	1.6	ns	
	Resolut	1.3	ns	
CSA <i>df</i> = 22	Scene	3.0	<.007	Offend>Controls
	Approach	4.1	<.0006	Offend>Controls
	Incident	2.6	<.02	Offend>Controls
	Conseq	1.8	ns	
	Resolut	2.1	=.052	Offend>Controls

**Table 3.** Scripts differences at each stage in mean respiration rate (breaths per minute) for Offenders and Controls.

Group	Stage	F	MSE	p	Fisher	Mean RESP Differences
Offenders <i>df</i> = 2, 20	Scene	1.6	6.4	ns		
	Approach	4.2	17.8	<.04	1.8	CSA>C
	Incident	0.2	0.8	ns		
	Conseq	0.1	0.2	ns		
	Resolut	7.5	14.5	<.004	1.2	N>C
Controls <i>df</i> = 2, 22	Scene	0.5	0.8	ns		
	Approach	4.7	6.7	<.03	1.0	N,C>CSA
	Incident	0.7	2.0	ns		
	Conseq	0.1	0.3	ns		
	Resolut	0.3	0.7	ns		

Notes: N = Neutral script  
 C = Consensual script  
 CSA = Child sexual assault script

Post hoc comparisons were performed to examine differences in respiration rate across the stages of each script for Offenders and Controls. These results are presented in Table 4. Respiration rate for the Offenders was significantly higher in the Resolution stage compared to the Scene and Consequence stages of the Neutral script, although there were no significant differences across the stages of the Consensual and CSA scripts. Respiration rate for the Controls only differed significantly across the stages of the CSA script such that respiration was significantly higher in the latter two stages relative to the Approach stage.

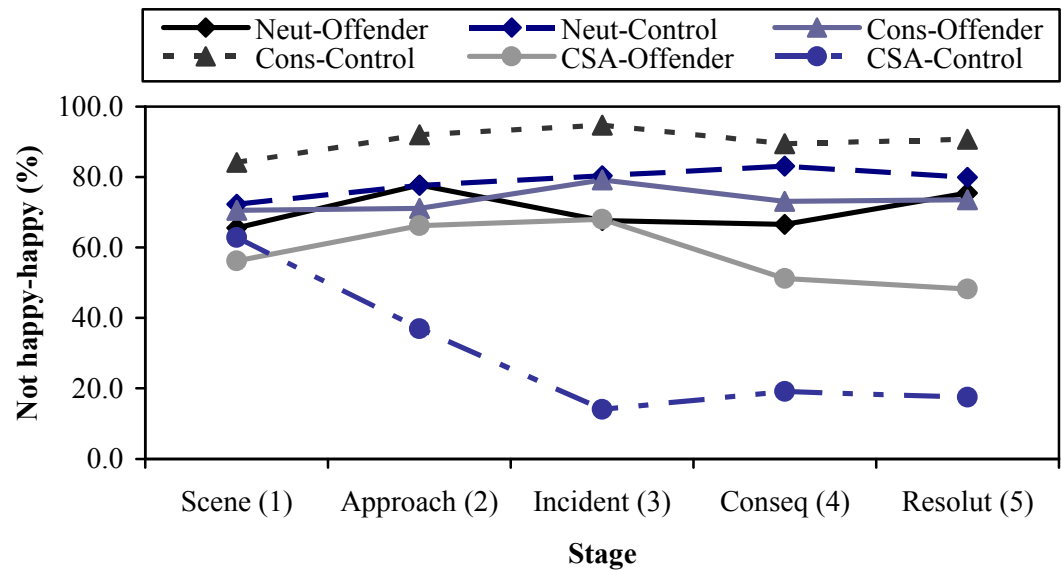
**Table 4.** Post hoc comparisons of mean respiration rate (breaths per minute) across script stages for Offenders and Controls.

Group	Stage	F	MSE	p	Fisher	Mean RESP Differences
Offenders <i>df</i> = 4, 44	Neutral	2.6	4.9	<.05	1.1	5>1,4
	*Consens	0.9	1.8	ns		
	CSA	1.2	6.3	ns		
Controls <i>df</i> = 4, 44	Neutral	0.3	0.5	ns		
	Consens	0.2	0.6	ns		
	CSA	2.8	6.4	<.04	1.2	4,5>2

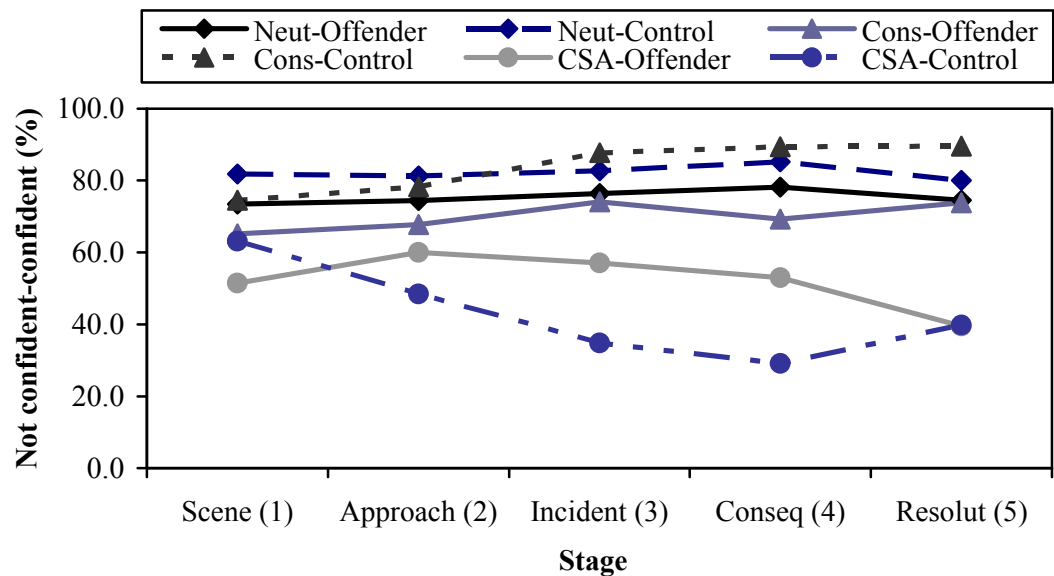
Notes: \* *df*= 4, 40

#### 4.9.3 Psychological Response to Imagery

There were significant script x stage x group interactions for the VASs not happy-happy,  $F(8,168) = 4.73$ ,  $MSE = 1146.09$ ,  $p < .0002$ , not confident-confident,  $F(8,168) = 2.37$ ,  $MSE = 544.62$ ,  $p < .04$ , not sexually aroused-sexually aroused,  $F(8,168) = 3.05$ ,  $MSE = 926.18$ ,  $p < .008$ , and not avoiding sex-avoiding sex,  $F(8,168) = 2.03$ ,  $MSE = 756.94$ ,  $p < .05$ . Consideration was initially given to the measures of happiness and confidence because of the similarity in the pattern of response to these VASs. The mean percentage ratings for happiness and confidence are depicted in Figures 2 and 3 respectively. The means and standard deviations for each stage of each script for both groups for all of the VAS measures are presented in Appendix I.



**Figure 2.** Means for significant script x stage x group interaction for percentage ratings of not happy-happy (0-100)



**Figure 3.** Means for significant script x stage x group interaction for percentage ratings of not confident-confident (0-100)

Differences between Offenders and Controls for ratings of happiness and confidence for each stage of each script were examined. These results are presented in Table 5. Differences between Offenders and Controls in ratings for confidence at each stage of each script were not significant. Mean differences in ratings of

happiness between the two groups across the Neutral and Consensual scripts were not significant. However, Offenders' mean ratings of not happy-happy were significantly higher at each stage of the CSA script, except for the Scene stage, when compared with Controls.

**Table 5.** Unpaired t-tests of Offender-Control group differences at each stage of each script for percentage ratings of not happy-happy and not confident-confident.

VAS	Script	Stage	t	p	Differences in mean % ratings
<b>Not happy-happy</b>	Neutral <i>df</i> = 22	Scene	0.4	ns	
		Approach	0.2	ns	
		Incident	0.9	ns	
		Conseq	1.7	ns	
		Resolut	0.3	ns	
	Consensual <i>df</i> = 21	Scene	1.1	ns	
		Approach	1.6	ns	
		Incident	1.4	ns	
		Conseq	1.5	ns	
		Resolut	1.5	ns	
	CSA <i>df</i> = 22	Scene	0.2	ns	
		Approach	2.4	<.03	Offend>Controls
		Incident	4.6	<.0001	Offend>Controls
		Conseq	2.2	<.04	Offend>Controls
		Resolut	3.2	<.004	Offend>Controls



<b>Not confident- confident</b>	Neutral <i>df</i> = 22	Scene	0.6	ns
		Approach	0.6	ns
		Incident	0.5	ns
		Conseq	0.7	ns
		Resolut	0.4	ns
	Consensual <i>df</i> = 21	Scene	0.8	ns
		Approach	0.9	ns
		Incident	1.2	ns
		Conseq	1.8	ns
		Resolut	1.4	ns
	CSA <i>df</i> = 22	Scene	0.6	ns
		Approach	0.5	ns
		Incident	1.2	ns
		Conseq	1.5	ns
		Resolut	0.3	ns

Post hoc comparisons were made examining script differences in ratings of happiness and confidence at each stage for the Offenders and Controls. These results are presented in Table 6. For Offenders, ratings of happiness and confidence at the Resolution stage were significantly higher in the Consensual and Neutral scripts compared to the CSA script. For Controls, ratings of happiness and confidence were significantly higher at each stage, except the Scene stage, for the Neutral and Consensual scripts relative to the CSA script. At the Scene stage, the only significant difference for Controls was in ratings of happiness such that ratings were significantly higher for the Consensual compared to the CSA script. In addition, at

the Incident stage, Control ratings of happiness were significantly higher for the Consensual script relative to the Neutral script.

**Table 6.** Between scripts differences at each stage, for Offenders and Controls, in percentage ratings of not happy-happy and not confident-confident.

VAS	Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
<b>Not happy-happy</b>	Offenders <i>df</i> =2, 20	Scene	0.7	577.7	ns		
		Approach	0.3	369.3	ns		
		Incident	0.6	475.7	ns		
		Conseq	1.4	1381.8	ns		
		Resolut	4.4	2532.2	<.03	21.4	N,C>CSA
	Controls <i>df</i> =2, 22	Scene	4.0	1371.6	<.04	15.7	C>CSA
		Approach	32.3	9803.2	<.0001	14.7	N,C>CSA
		Incident	113.9	22183.5	<.0001	11.8	N,C>CSA; C>N
		Conseq	95.3	18146.6	<.0001	11.7	N,C>CSA
		Resolut	92.7	18740.4	<.0001	12.0	N,C>CSA
<b>Not confident-confident</b>	Offenders <i>df</i> =2, 20	Scene	0.6	432.7	ns		
		Approach	0.4	380.0	ns		
		Incident	0.4	396.6	ns		
		Conseq	1.7	1501.0	ns		
		Resolut	4.8	4394.7	<.02	26.8	N,C>CSA

Controls <i>df</i> =2, 22	Scene	3.4	1052.7	=.051		
	Approach	8.8	3939.2	<.002	17.9	N,C>CSA
	Incident	25.8	10218.4	<.0001	16.8	N,C>CSA
	Conseq	53.9	13607.0	<.0001	13.5	N,C>CSA
	Resolut	21.1	8400.4	<.0001	16.9	N,C>CSA

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault script

Post hoc comparisons were performed to examine differences in happiness and confidence ratings across the stages of each script for Offenders and Controls. Table 7 presents these results. Offenders' ratings of happiness and confidence did not differ significantly across the three scripts. Only Controls' ratings of happiness differed significantly across the Neutral script, such that ratings were higher in the latter three stages relative to the first (Scene) stage. Controls' ratings of confidence differed significantly across the stages of the Consensual script, with higher ratings in the last two stages relative to the first two as well as during the Incident compared to Scene stage. The Control's ratings of happiness for the CSA script were significantly higher in the Scene relative to the latter four stages and also in the Approach relative to the latter three stages. Controls' ratings of confidence during the CSA script were significantly higher at the Scene relative to the latter three stages of the script and also at the Approach relative to the Consequence stage.

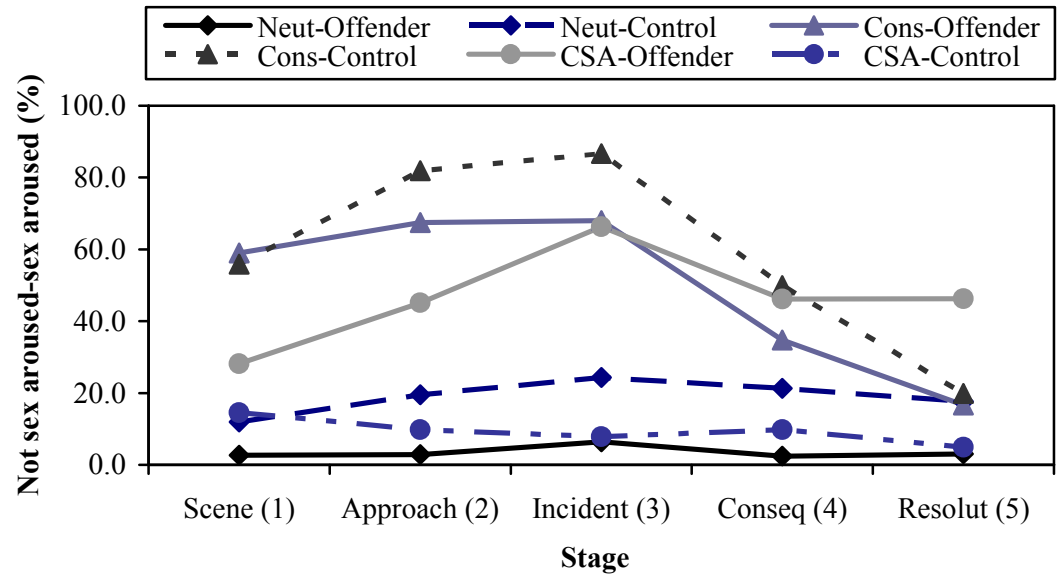
**Table 7.** Comparisons in ratings of not happy-happy and not confident-confident across the stages of each script for Offenders and Controls.

VAS	Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
<b>Not happy-happy</b>	Offenders <i>df</i> = 4, 44	Neutral	1.0	310.5	ns		
		*Consens	0.6	130.7	ns		
		CSA	1.1	840.4	ns		
	Controls <i>df</i> = 4, 44	Neutral	3.1	197.5	<.03	6.6	3,4,5 > 1
		Consens	2.1	182.7	ns		
		CSA	20.0	4958.3	<.0001	12.9	1,2 > 3,4,5; 1 > 2
<b>Not confident-confident</b>	Offenders <i>df</i> = 4, 44	Neutral	0.3	35.0	ns		
		*Consens	1.3	164.3	ns		
		CSA	0.4	283.5	ns		
	Controls <i>df</i> = 4, 44	Neutral	1.2	45.6	ns		
		Consens	3.8	596.8	<.01	10.3	4,5 > 1,2; 3 > 1
		CSA	4.5	2118.7	<.004	17.9	1 > 3,4,5; 2 > 4

Notes: \* *df* = 4, 40

Figure 4 displays the means for the significant script x stage x group interaction for mean percentage ratings of not sexually aroused-sexually aroused. Differences between Offenders and Controls for ratings of sexual arousal at each stage of each script were examined. These post-hoc results are displayed in Table 8. The Controls' ratings were significantly higher than were the Offenders' ratings for the Approach, Consequence and Resolution stages of the Neutral script. Ratings between groups did not differ significantly across the Consensual scripts' stages.

However, the Offenders' ratings of sexual arousal were significantly higher than the Controls' ratings for each stage, except the Scene stage, of the CSA script.



**Figure 4.** Mean percentage ratings for not sexually aroused-sexually aroused (0-100) significant script x stage x group interaction

**Table 8.** Unpaired t-tests of Offender-Control group differences at each stage of each script for mean percentage ratings of not sexually aroused-sexually aroused.

Script	Stage	t	p	Difference in mean % ratings
Neutral <i>df</i> = 22	Scene	1.6	ns	
	Approach	2.4	<.03	Control>Offend
	Incident	2.0	=.055	Control>Offend
	Conseq	2.7	<.02	Control>Offend
	Resolut	2.5	<.03	Control>Offend

Consensual <i>df</i> = 21	Scene	0.2	ns	
	Approach	1.2	ns	
	Incident	1.4	ns	
	Conseq	1.1	ns	
	Resolut	0.3	ns	
CSA <i>df</i> = 22	Scene	1.4	ns	
	Approach	3.6	<.002	Offend>Control
	Incident	6.1	<.001	Offend>Control
	Conseq	2.9	<.008	Offend>Control
	Resolut	3.0	<.007	Offend>Control

Post hoc comparisons were made of scripts differences for ratings of sexual arousal at each stage for the Offenders and Controls. Table 9 presents these results. Ratings for Offenders were significantly higher for the Consensual script compared to the Neutral and CSA scripts at the Scene stage. For the Approach, Incident and Consequence stages, Offenders' ratings were significantly higher for the Consensual and CSA scripts relative to the Neutral script. Offenders' ratings during the Resolution stage were significantly higher for the CSA script compared to the Consensual and Neutral scripts. For Controls, ratings of sexual arousal were significantly higher for the Consensual script relative to the CSA and Neutral scripts for stages one to four and at the Incident stage ratings were also significantly higher for the Neutral relative to the CSA script.

**Table 9.** Scripts differences in mean percentage ratings of not sexually aroused-sexually aroused at each stage for Offenders and Controls.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Offenders <i>df</i> =2, 20	Scene	9.6	8735.5	0.002	26.9	C>N,CSA
	Approach	14.1	11816.8	<.0002	25.7	C,CSA>N
	Incident	13.8	13489.7	<.0002	27.8	C,CSA>N
	Conseq	7.1	5655.5	<.005	25.1	C,CSA>N
	Resolut	7.2	5353.1	<.005	24.3	CSA>C,N
Controls <i>df</i> =2, 22	Scene	17.1	7281.1	<.0001	17.5	C>CSA,N
	Approach	48.6	18303.4	<.0001	16.4	C>CSA,N
	Incident	57.0	20697.8	<.0001	16.1	C>CSA,N; N>CSA
	Conseq	13.5	5123.3	<.0001	16.5	C>CSA,N
	Resolut	2.0	782.4	ns		

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault script

Post hoc comparisons were performed to examine differences in sexual arousal ratings across the stages of each script for Offenders and Controls. These results are presented in Table 10. Ratings for Offenders were significantly higher in the first three stages relative to the latter two stages of the Consensual script. Offenders' ratings were also significantly higher in the Incident compared to the Scene stage of the CSA script. For Controls, ratings did not differ significantly across the stages of the Neutral and CSA script. However, Controls' ratings were

significantly different across the stages of the Consensual script such that ratings progressively increased and peaked in the Approach and Incident before declining in subsequent stages.

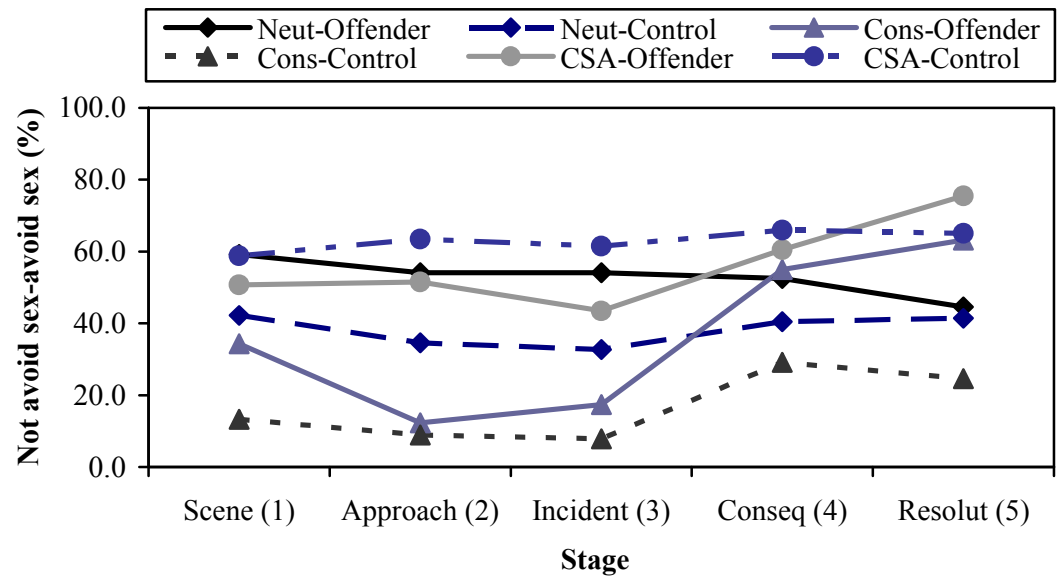
**Table 10.** Comparisons in mean percentage ratings of not sexually aroused-sexually aroused across the stages of each script for Offenders and Controls.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Offenders <i>df</i> =4, 44	Neutral	0.9	29.0	ns		
	*Consens	8.0	5643.4	<.0001	22.9	1,2,3>4,5
	CSA	2.7	2019.2	<.05	22.6	3>1
Controls <i>df</i> =4, 44	Neutral	1.7	257.6	ns		
	Consens	27.2	8710.2	<.0001	14.7	2,3>1,4,5; 1>5; 4>5
	CSA	1.5	148.0	ns		

Notes: \* *df*=4, 40

Figure 5 displays the mean ratings for the significant script x stage x group interaction for ratings of not avoiding sex-avoiding sex. Differences between Offenders and Controls for ratings of avoiding sex at each stage of each script were examined. Table 11 displays these post-hoc results. There were no significant group differences at any of the stages of the Neutral and CSA scripts. However, Offenders reported significantly higher ratings of avoiding sex when compared with Controls at the Resolution stage of the Consensual script.





**Figure 5.** Mean percentage ratings for not avoiding sex-avoiding sex (0-100)  
significant script x stage x group interaction

**Table 11.** Unpaired t-tests of Offender-Control group differences at each stage of each script for mean percentage ratings of not avoiding sex-avoiding sex.

Script	Stage	T	p	Difference in mean % rating
Neutral <i>df</i> = 22	Scene	1.6	ns	
	Approach	1.7	ns	
	Incident	2.0	=0.54	Offend>Control
	Conseq	1.2	ns	
	Resolut	0.5	ns	
Consensual <i>df</i> = 21	Scene	1.6	ns	
	Approach	0.4	ns	
	Incident	1.0	ns	
	Conseq	1.8	ns	
	Resolut	2.9	<.01	Offend>Control

CSA <i>df</i> = 22	Scene	0.3	ns
	Approach	1.1	ns
	Incident	1.4	ns
	Conseq	0.2	ns
	Resolut	0.8	ns

Post hoc comparisons of script differences for avoiding sex ratings at each stage for the Offenders and Controls are presented in Table 12. For Offenders, there was a significant script effect at the Approach stage whereby ratings of avoiding sex were significantly higher for the Neutral and CSA scripts compared with the Consensual script. For Controls, ratings were significantly higher at each stage for the CSA script relative to the Consensual script. Ratings were also significantly higher for the CSA script compared with the Neutral script at stages two to four and for the Neutral script relative to the Consensual script at stages one to three.

**Table 12.** Script differences in mean percentage ratings of not avoiding sex-avoiding sex at each stage for Offenders and Controls.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Offenders <i>df</i> =2, 20	Scene	1.4	1766.3	ns		
	Approach	6.5	6032.1	<.007	27.2	CSA,N>C
	Incident	2.7	3925.8	ns		
	Conseq	0.1	184.2	ns		
	Resolut	1.7	2647.9	ns		

Controls <i>df</i> =2, 22	Scene	13.1	6371.2	<.0002	18.6	CSA,N> C
	Approach	18.2	8908.0	<.0001	18.7	CSA,N>C; CSA>N
	Incident	16.2	8642.6	<.0001	19.6	CSA,N>C; CSA>N
	Conseq	5.4	4281.2	<.02	23.8	CSA>N,C
	Resolut	6.0	4957.9	<.009	24.4	CSA>C

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault script

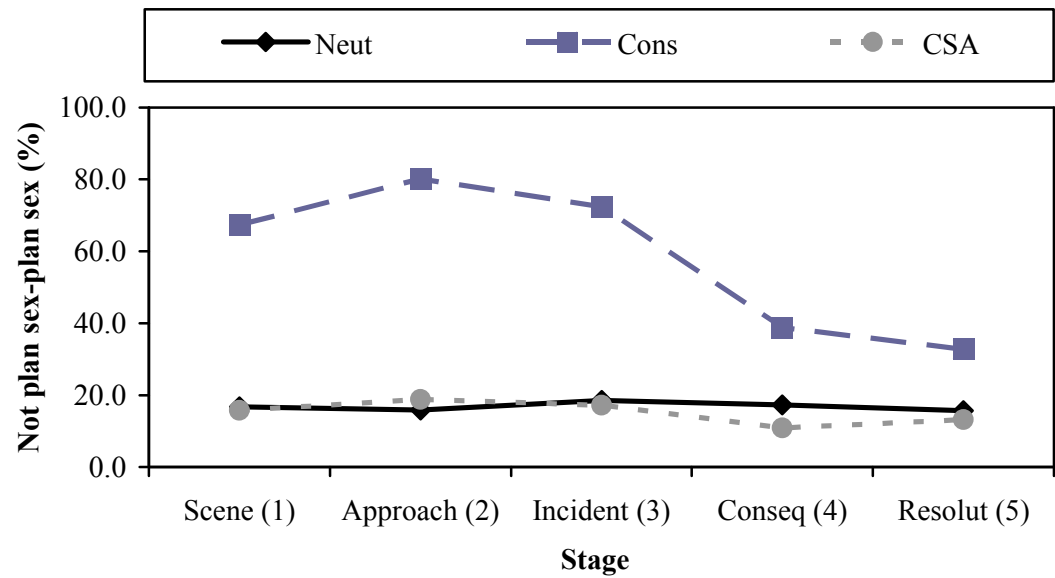
Post hoc comparisons were conducted examining differences in ratings of avoiding sex across the stages of each script for Offenders and Controls. Table 13 presents these results. For Offenders, ratings of avoiding sex for both the Consensual script and the CSA script were significantly higher in the Resolution compared to Scene stage and also in the Consequence and Resolution compared to the Incident stage. In addition for the Consensual script, Offenders' ratings were significantly higher in the Consequence and Resolution relative to the Approach stage. Controls' ratings did not differ significantly across the stages of the Neutral and CSA script. For the CSA script, Offenders' ratings were also significantly higher for the Resolution relative to the Approach stage. However, Controls' ratings for the Consensual script were significantly higher at the Consequence and Resolution compared to the Incident stage and also in the Consequence compared to the Scene and Approach stages.

**Table 13.** Comparisons across scripts in mean percentage ratings of not avoiding sex-avoiding sex for Offenders and Controls.

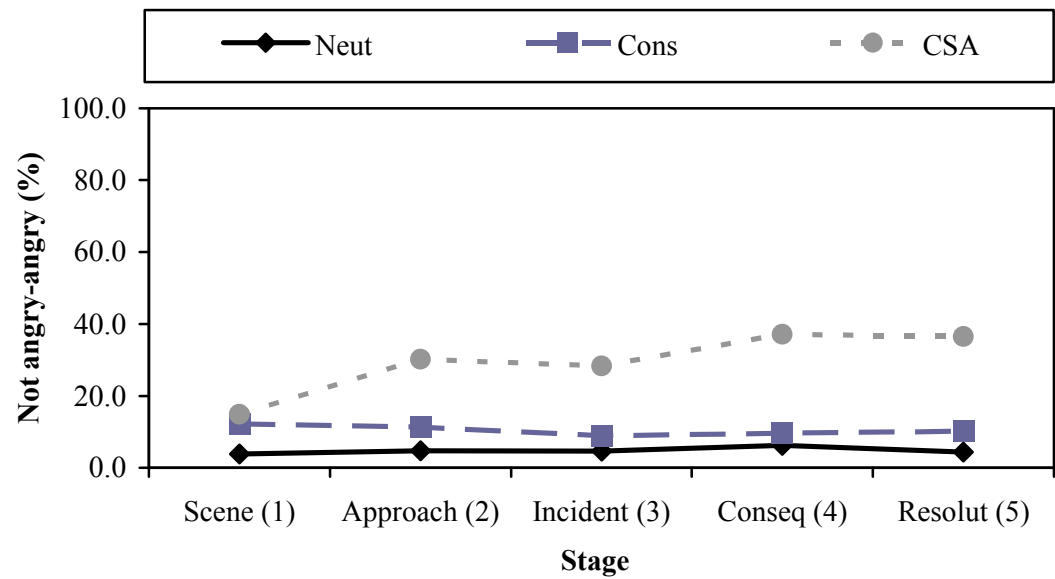
Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Offenders <i>df</i> =4, 44	Neutral	1.8	285.4	ns		
	*Consens	8.0	5527.6	<.0001	22.7	5>1; 4,5>2,3
	CSA	3.4	714.7	<.02	22.0	5>1,2; 4,5>3
Controls <i>df</i> =4, 44	Neutral	0.9	249.5	ns		
	Consens	3.0	368.2	<.03	15.8	4,5>3; 4>1,2
	CSA	0.3	365.1	ns		

Notes: \* *df*=4, 40

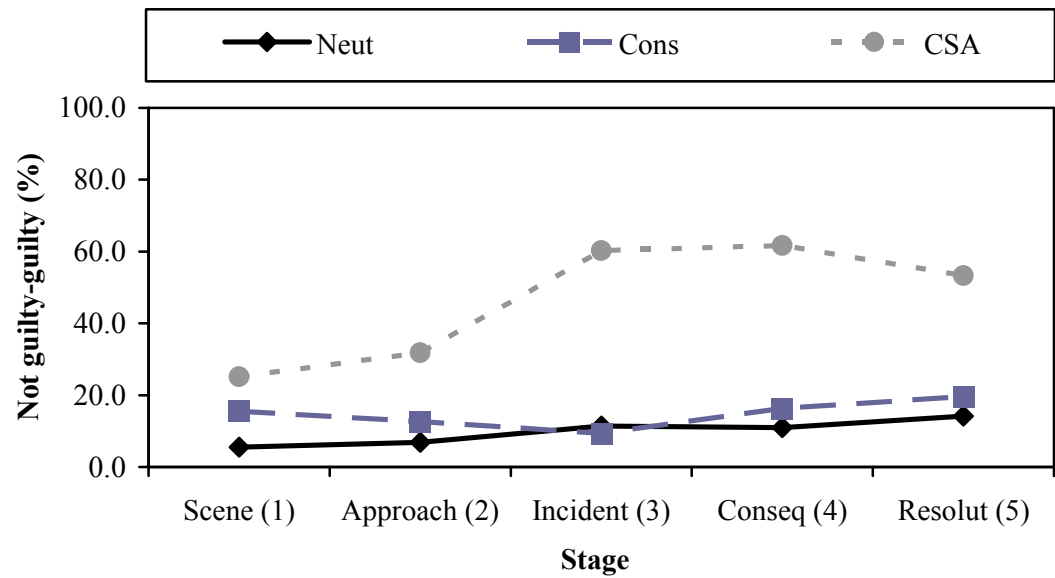
There were significant script x stage interactions for the VASs not planning sex-planning sex,  $F(8,168) = 8.78$ ,  $MSE = 2927.42$ ,  $p < .01$ , not angry-angry,  $F(8,168) = 3.52$ ,  $MSE = 622.18$ ,  $p < .007$ , not guilty-guilty,  $F(8,168) = 6.41$ ,  $MSE = 1985.07$ ,  $p < .0001$ , not anxious-anxious,  $F(8,168) = 3.62$ ,  $MSE = 1525.96$ ,  $p < .003$ , and not agitated-agitated,  $F(8,168) = 3.63$ ,  $MSE = 864.14$ ,  $p < .004$ . The patterns of results obtained for ratings of these negative emotions are presented in Figures 6 to 10. The means and standard deviations for these significant two-way interactions are displayed in Appendix I.



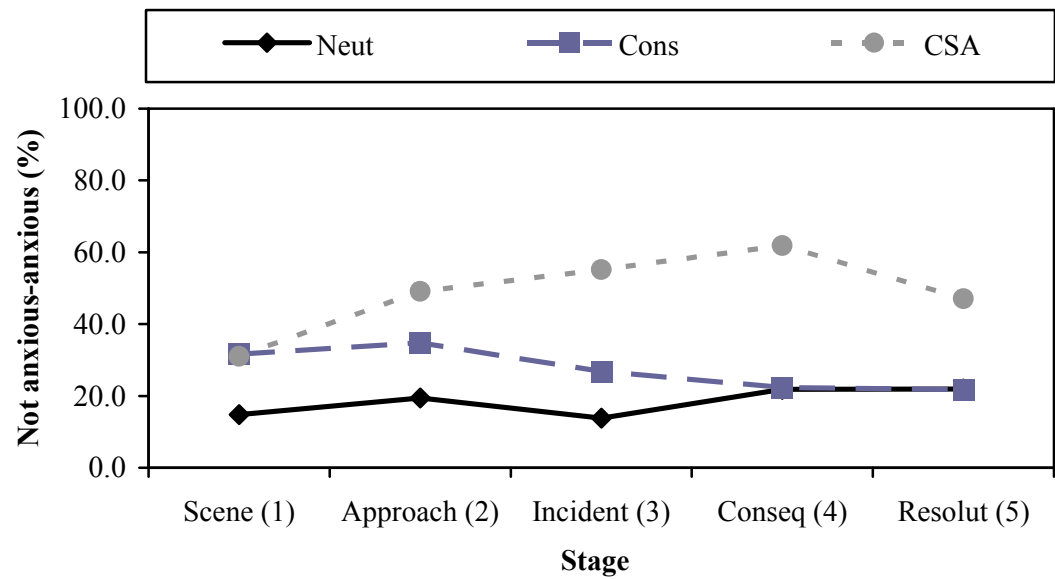
**Figure 6.** Mean percentage ratings for not planning sex-planning sex (0-100) script x stage interaction



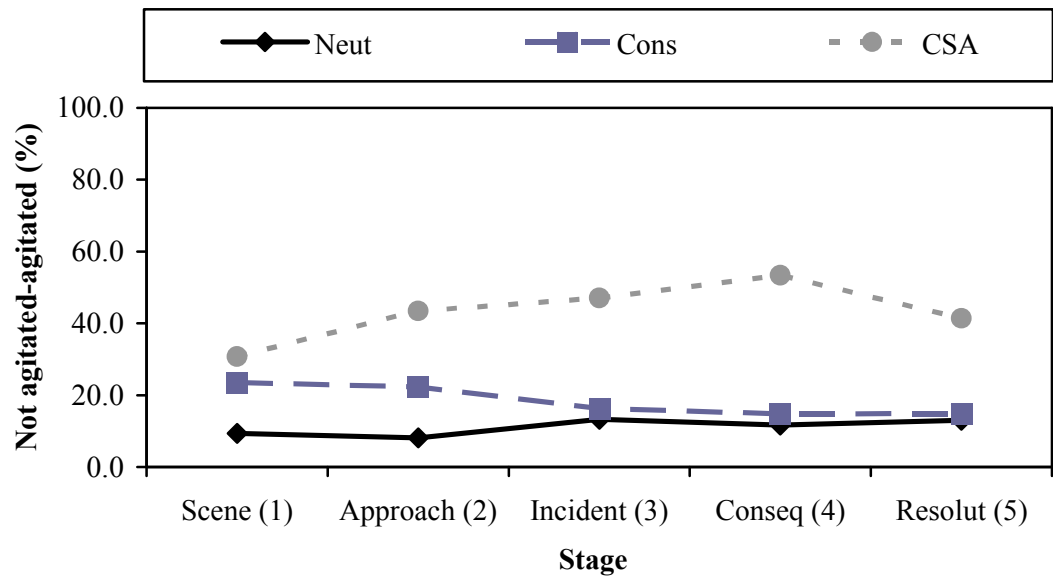
**Figure 7.** Mean percentage ratings for not angry-angry (0-100) script x stage interaction



**Figure 8.** Means for significant script x stage interaction for percentage ratings of not guilty-guilty (0-100)



**Figure 9.** Mean percentage ratings of not anxious-anxious (0-100) for significant script x stage interaction



**Figure 10.** Mean percentage ratings of not agitated-agitated (0-100) for significant script x stage interaction

Post hoc comparisons of script differences at each stage for ratings of planning sex, anger, guilt, anxiety and agitation were conducted and the results are presented in Table 14. With regard to planning sex, ratings were significantly higher for the Consensual script relative to the CSA and Neutral scripts at each stage. Ratings of guilt, anxiety and agitation were significantly higher in the CSA script than in the Neutral script at each stage. The same pattern of differences was obtained for anger except for at the Scene stage. With regards to significant differences in ratings between the Consensual and CSA scripts, anger was rated significantly higher for the CSA script at each stage except for the Scene. Guilt was rated to be significantly higher in the CSA compared with the Consensual script at the Approach stage. In addition, ratings of guilt, anxiety and agitation were higher in the CSA relative to the Consensual script at stages three to five.

**Table 14.** Scripts differences at each stage in percentage ratings of VASs for Offenders and Controls combined.

VAS	Stage	F	MSE	p	Fisher	Differences in mean % ratings
<b>Not plan sex-plan sex</b> <i>df</i> =2, 44	Scene	31.8	20048.4	<.0001	14.9	C>CSA,N
	Approach	42.1	30205.4	<.0001	15.9	C>CSA,N
	Incident	25.4	22798.6	<.0001	17.8	C>CSA,N
	Conseq	7.6	4953.3	<.002	15.2	C>CSA,N
	Resolut	5.1	2590.6	<.02	13.4	C>CSA,N
<b>Not angry-angry</b> <i>df</i> =2, 44	Scene	2.4	767.1	ns		
	Approach	7.9	4065.2	<.01	13.4	CSA>N,C
	Incident	7.4	3644.9	<.01	13.2	CSA>N,C
	Conseq	9.9	6556.0	<.0003	15.3	CSA>N,C
	Resolut	8.4	6728.4	<.0008	16.8	CSA>N,C
<b>Not guilty-guilty</b> <i>df</i> =2, 44	Scene	4.5	2192.6	<.02	13.1	CSA>N
	Approach	9.8	3905.8	<.0003	11.9	CSA>N,C
	Incident	26.7	19041.0	<.0001	15.9	CSA>N,C
	Conseq	29.4	17799.1	<.0001	14.6	CSA>N,C
	Resolut	12.6	10335.1	<.0001	17.0	CSA>N,C
<b>Not anxious-anxious</b> <i>df</i> =2, 44	Scene	4.0	2095.2	<.03	13.6	C,CSA>N
	Approach	6.4	5057.0	<.004	16.8	CSA>N
	Incident	10.9	10302.6	<.0001	18.3	CSA>N,C
	Conseq	16.4	12141.8	<.0001	16.2	CSA>N,C
	Resolut	5.2	4858.8	<.01	18.1	CSA>N,C



<b>Not agitated- agitated</b> <i>df</i> =2, 44	Scene	5.5	2703.9	<.008	13.2	C,CSA>N
	Approach	6.0	3001.3	<.006	13.3	C,CSA>N
	Incident	13.2	8027.8	<.0001	14.7	CSA>N,C
	Conseq	19.9	12410.6	<.0001	14.8	CSA>N,C
	Resolut	8.9	5766.3	<.0006	15.1	CSA>N,C

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault script

Post hoc comparisons were performed to examine differences in ratings of planning sex, anger, guilt, anxiety and agitation between stages for each script. Table 15 presents these results. Ratings of planning sex differed significantly across the Consensual script with higher ratings in the first three stages relative to the latter two stages. For anger, ratings were significantly higher for the CSA script at the Approach, Consequence and Resolution compared with the Scene. Guilt, anxiety and agitation were rated significantly higher in the Incident and Consequence relative to the Scene of the CSA script.

In the CSA script, guilt was also rated significantly higher in the Incident and Consequence than in the Approach and in the Resolution compared to the Scene. Anxiety was also rated as significantly higher in the Approach compared to the Scene of the CSA script. Finally, in the Neutral script, ratings of guilt were significantly higher for stages three to five relative to the Scene and also in the Resolution compared to the Approach.

**Table 15.** Comparisons in mean percentage ratings of negative valence VASs across script stages for Offenders and Controls combined.

VAS	Stage	F	MSE	p	Fisher	Differences in mean % rating
<b>Not plan sex -plan sex</b> <i>df</i> =4, 92	Neutral	0.5	29.0	ns		
	*Consens	15.9	10285.6	<.0001	14.9	1,2,3>4,5
	CSA	0.6	223.6	ns		
<b>Not angry-angry</b> <i>df</i> =4, 92	Neutral	0.4	16.6	ns		
	*Consens	0.9	37.6	ns		
	CSA	4.4	2478.3	<.003	13.5	2,4,5>1
<b>Not guilty-guilty</b> <i>df</i> =4, 92	Neutral	3.7	278.5	<.008	5.0	3,4,5>1; 5>2
	*Consens	1.6	346.5	ns		
	CSA	12.3	7907.7	<.0001	14.5	3,4,5>1,2
<b>Not anxious-anxious</b> <i>df</i> =4, 92	Neutral	0.6	224.8	ns		
	*Consens	1.9	741.4	ns		
	CSA	2.9	2212.4	<.03	15.7	2,3,4>1
<b>Not agitated-agitated</b> <i>df</i> =4, 92	Neutral	0.9	114.6	ns		
	*Consens	2.4	404.2	=0.55		1>4,5
	CSA	2.9	1579.4	<.03	13.4	3,4>1

Notes: \* *df*=4, 88

There was a significant main effect of script for ratings of not in control-in control,  $F(2,42) = 13.98$ ,  $MSE = 20799.23$ ,  $p < .0001$ . Post hoc comparison indicated ratings of control were significantly higher (Fisher = 10.4) in response to the Neutral

( $M = 83.8$ ,  $SD = 16.1$ ) and Consensual ( $M = 76.6$ ,  $SD = 25.5$ ) scripts compared to the CSA script ( $M = 57.7$ ,  $SD = 31.8$ ).

#### 4.10 Discussion

There were two primary aims of Study One. The first aim was to determine whether psychophysiological measures may be reliably employed as adjunct measures to self-report to address the Self-Regulation model's sole reliance on self-report measures of sex offence processes. The second aim was to determine whether the processes occurring during child sex offending are unique. Hence, this study was designed to address the limitations of the Self-Regulation model with regards to reliance on self-report and assumptions pertaining to the uniqueness of sex offence processes. The studies following this chapter will explore the accuracy and implications of the Self-Regulation model's descriptions of pathways to offending.

With regards to the first aim of this study, a guided imagery methodology was employed to examine psychophysiological responses to child sex offending, adult consensual sex, and a neutral event. There were no significant interactions or main effects for heart rate and skin conductance. However, there was a significant three-way interaction for respiration rate such that there were significant differences between Offenders and Controls in response to the CSA script. Furthermore, there were significant differences in respiration rate between scripts and across stages for both Offenders and Controls. These differences in respiration rate will be discussed in further detail in the following sections.

Further to the above, the observed changes in respiration rate in the present study provided an objective indicator of the psychological processes occurring during child sex offending and adult consensual sex, as there were typically notable differences in self-report measures of psychological responses that coincided with

the observed differences in respiration rate. Therefore, the present results suggest that psychophysiological measures, such as respiration rate, may be meaningfully employed to provide objective indicators of psychological processes. However, given there were no significant differences for heart rate and skin conductance, further research would be required to determine the extent to which other psychophysiological measures, besides respiration rate, may be reliably employed as adjunct and objective indicators of psychological processes.

With regards to the second aim of this study, to determine whether the processes occurring during sex offending are both deviant and unique, it was necessary from the outset to establish the type of response pattern that would be deemed non-deviant. Thus, the responses of non-offending Controls to personalised depictions of adult consensual sex (Consensual script) were examined to produce a profile of a non-deviant response. The responses of child sex offenders and Controls to the Consensual script were then compared to ascertain whether Offenders demonstrated a similar profile of response. This comparison suggested that the current sample of child sex offenders demonstrated a non-deviant response pattern to their personal experiences of adult consensual sex.

Proceeding from this series of comparisons, it was then reasonable to examine patterns of responses to the CSA script to determine whether Offenders' demonstrated deviant or non-deviant responses to the sex offences they have committed against children. A comparison of Offenders' responses to the CSA and Consensual scripts indicated that although the two types of behaviour were associated with a number of similar processes, there were certain patterns of response that appeared to be unique to child sex offending. The following discussion will provide a more in-depth consideration of these patterns of responses and will detail the implications of these for furthering understandings of the sex offence process.

Please note that, following on from the design and results section, the abbreviated terms “Offenders” and “Controls” in title case will be used to refer to the present sample of child sex offenders and non-offending controls and not child sex offenders or non-offending populations in general.

Before proceeding to further examine the response patterns demonstrated by Offenders and Controls, it is necessary to consider any pre-existing response tendencies that may have confounded comparisons between the Offenders and Controls. Research has indicated that there are a range of pre-existing variables individuals may possess that will systematically influence how they respond psychologically and physiologically to sexual stimuli and situations (Fisher et al., 1988; Janssen et al., 2002a, 2002b). The most seemingly obvious of these variables is sexual dysfunction, as it has been found that sexually dysfunctional individuals demonstrate affective and physiological responses to sexual stimuli that are different from those demonstrated by sexually functional males (for a review see Rowland, 1999). Consistent with previous research (Lanyon, 1993), the present study found no significant differences between Offenders and Controls in the number of self-reported items endorsed that are indicative of sexual dysfunction problems. Therefore, there is no reason to believe that between-group comparisons in responses to the Consensual and CSA scripts were unduly influenced by pre-existing sexual dysfunction.

It was plausible that comparisons between Offenders and Controls may also have been confounded by pre-existing response tendencies such as erotophilia and erotophobia (Fisher et al., 1988) and sexual excitation and sexual inhibition (Janssen et al., 2002a, 2002b). To attend to this risk, Offenders and Controls’ mean scores on the SIS/SES scales (Janssen et al., 2002b) were compared. Consistent with initial predictions, there was no difference between the groups in sexual excitation

proneness. In addition, although inconsistent with the hypotheses, Offenders and Controls did not differ in scores for sexual inhibition as a result of fear of the consequences of performance. Therefore, differences in the response magnitude of Offenders and Controls were not confounded by these response tendencies.

As expected, Offenders scored higher on proneness towards sexual inhibition caused by performance failure (SIS1). This latter result suggests Offenders are more likely to experience inhibition due to greater performance concerns which, in turn, may have influenced their responses to the Consensual and CSA scripts. However, research has shown that men scoring high and low on the SIS1 did not differ significantly in psychophysiological responses to threatening and non-threatening erotic stimuli (Janssen et al., 2002a). Therefore, this difference between groups on the SIS1 would be unlikely to confound comparisons in psychophysiological responses to the CSA and Consensual scripts.

Nonetheless, this observed difference in sexual inhibition response tendency between Offender and Controls may be informative in understanding motivations for offending. Given that the present sample of offenders were more likely to be inhibited sexually by concerns of performance failure, it appears plausible that child sex offenders may experience difficulties in sexual relationships that, in turn, may compel them to seek sexual relationships with individuals, such as children, who pose little threat to sexual performance. Therefore, this response tendency demonstrated by the present sample of Offenders suggests that they would likely report higher negative affect during the Consensual script when compared with Controls.

However, there are a number of research findings that would indicate that sexual inhibition response tendencies such as these would not unduly influence psychological responses to erotic stimuli. In particular, as previously noted, research

has indicated that there was no difference in psychophysiological responses to erotic material between offenders high and low on inhibition caused by concerns of performance failure (Janssen et al., 2002a). Further to this, negative affective states may be differentiated on the basis of psychophysiological responses (e.g., Ax, 1953; Herpertz et al., 1999; Lang, 1979; Levenson, 1992; Yoon-Ki et al., 2005). Given that sexual inhibition response tendencies have not influenced psychophysiological responses in previous research (Janssen et al.), then likewise, they should not influence affective responses to erotic stimuli. Therefore, sexual inhibition is not considered to be a confounding variable in the present investigation.

Having established that comparisons in response patterns of Offenders and Controls were unlikely to be influenced by confounding variables, it is plausible to proceed with a discussion of the observed similarities and differences between Offenders and Controls in response profiles to the Consensual script. By examining the Controls' response profile for the Consensual script, it was possible to illustrate a non-deviant response pattern, and, in turn, determine whether Offenders demonstrated a non-deviant response to adult consensual sex.

Given the high emphasis placed on sexually deviant behaviour and the corresponding limited consideration of normal sexuality in the sex offender literature (e.g., Trivits & Reppucci, 2002), it was expected that Offenders would demonstrate a non-deviant response to the Consensual script. Partially consistent with this study's hypothesis, Controls and Offenders did not differ in respiration rate and psychological responses to the Consensual script. However, the respiration rate of Offenders and Controls in response to the Consensual script did not differ significantly across stages, which is inconsistent with Masters and Johnson's (1966) description of the sexual response cycle. Nonetheless, Masters and Johnson (1966) conducted an in-vivo assessment of the sexual response cycle. It is plausible that

these subtle changes across stages were not detected, as the intensity of psychophysiological responses to the imagery would understandably be lower than those occurring during the actual consensual sexual experience. In support of this notion, descriptively, both Offenders and Controls exhibited a pattern of psychophysiological arousal as indexed by respiration rate that peaked in the Incident stage where sexual behaviour peaked in intensity, thus, demonstrating a typical sexual response. However, it should be noted that there were no significant interactions or effects for heart rate and skin conductance. Therefore, further research would be required to determine the extent to which offenders would demonstrate a typical response to adult consensual sex when using other indices of psychophysiological arousal besides respiration rate.

Consistent with the data for respiration rate, the psychological results demonstrated similar response profiles for Offenders and Controls to the Consensual script. For both groups, ratings of sexual arousal were initially moderate before peaking in Consensual stages two and three which typically described sexual foreplay followed by sexual intercourse. Ratings of negative and positive emotions, with the exception of Control's ratings of confidence, did not differ significantly for either group across the stages of the Consensual script. Positive emotions were typically high whereas negative emotions were typically low during the Consensual script. This finding was inconsistent with the previous suggestion that Offenders may report higher negative affect during adult consensual sex as a result of a higher reported tendency than Controls to respond in a sexually inhibited manner due to concerns of performance failure. However, there were noticeably larger standard deviations in Offenders' ratings of negative affect during these stages (see Appendix I) suggesting the possibility that Consensual sex is associated with different response



patterns in subtypes of sex offenders. This possibility will be explored further in the following chapter.

Taken collectively, these results suggest that the present sample of Offenders, as a combined group, experienced relatively normal psychophysiological responses, as indexed only by respiration rate, and psychological responses to personal recollections of consensual sexual activity with another adult. These results have implications for the sex offender literature, as it has been noted numerous times throughout this Chapter that little is known about the normal sexual experiences of sex offenders (Trivits & Reppucci, 2002). What may be concluded at this point is that the present findings do not provide any evidence to suggest that the problematic behaviours exhibited by the present sample of child sex offenders are linked with abnormal responses to adult sexual relationships in any consistent way for all of the offenders in the present sample. Therefore, the present findings do not provide any evidence to negate the assumption by Ward, Hudson and colleagues (1995) that the problems exhibited by offenders are specific to sex offending. However, it is certainly worthy of mention that one of the child sex offenders in the present sample reported that they had never had a consensual sexual relationship with another adult. This offender's lack of a consensual adult sexual experience would suggest that the responses of this sample of child sex offenders to consensual sexual experiences are not homogeneous.

Indeed, a noteworthy caution is made with regard to interpreting the processes experienced by the Offenders during the Consensual script, as there was substantial variability in responses (see Appendix I). Hence, a cautious interpretation of the results would suggest that although the processes occurring during sex offending are unique to that behaviour for the majority of the current sample of child sex offenders, there may be individuals or subtypes of child sex offenders who

experience abnormal reactions to adult consensual sex. Indeed, as noted previously, one of the child sex offenders in the present sample reported that they had never had a consensual sexual relationship with another adult.

It has been proposed that certain subtypes of sex offenders may exhibit problematic behaviours in other aspects of their lives (Polaschek et al., 2001). Additionally, research has indicated that 25 to 40 percent of sex offenders exhibit symptoms indicative of a diagnosis of paedophilia (Marshall, 1997). Clearly then, it is reasonable to assume that conclusions regarding the nature of responses to adult consensual sex would not hold true for a substantial minority of child sex offenders. In addition, given the present sample of child sex offenders ( $N=12$ ) was small, the extent to which the present findings may be generalised to other populations of child sex offenders is unknown. Hence, caution should be exercised in interpreting the results of the present study.

In further exploring the possibility that child sex offence processes are unique and deviant, Offenders' responses to adult consensual sex and child sexual assault were compared. Offering support for the notion that the child sex offenders would demonstrate a deviant response pattern to personalised descriptions of child sex offending, respiration rate for Offenders at the Approach stage was significantly higher in the CSA script compared to the Consensual script. The Approach stage of the two scripts depicted the moments immediately preceding the pinnacle of the sexual act. Although the increase in respiration rate at the Approach stage of the CSA script suggests that Offenders were anticipating the following moments, it must be noted that there were no significant differences between scripts for heart rate and skin conductance. A consideration of the affective responses reported by Offenders during the Approach stage is necessary to decipher the exact nature of this increase in respiration rate.

At the Approach stage of the CSA script, Offenders reported moderate to high levels of happiness and confidence as well as moderate levels of sexual arousal. During this same period of time, guilt was rated as being low whereas anger, anxiety and agitation were rated as being moderate to low. However, Offenders' ratings of these emotions during the Approach stage did not differ significantly between the CSA and Consensual scripts. Therefore, it does not appear to be the case that the subjective affective processes occurring during child sex offending are unique or deviant at least in the present sample of child sex offenders.

Even so, it is clear that Offenders were experiencing a combination of both positive and negative emotions during the immediate moments leading up to the offence. It may be the case that whereas Offenders were anticipating positive affective and physiological states to follow, they were simultaneously aware of the potential negative outcomes. Thus, this interpretation of the pattern of response to the CSA script implies the existence, among the present sample child sex offenders, of unique cognitive processes occurring during child sex offending.

In addition, it is evident that Offenders' sexual arousal increased more rapidly in response to the CSA script compared with the Consensual script. With regard to the Consensual script, Offenders reported the highest levels of sexual arousal occurred during the stages depicting the setting, as well as the immediate moments before and during the sexual interaction. In contrast, Offenders reported the highest level of sexual arousal during the CSA script occurred specifically in the Incident stage, which depicted the moments occurring during the pinnacle of the sexual interaction. This pattern of response demonstrates that, for the present sample of child sex offenders, child sex offending is associated with a more pronounced and rapid increase in sexual arousal as well as psychophysiological arousal, as indexed by respiration rate.

It may be the case that, at least for the present sample of child sex offenders, it is the sudden and rapid increase in arousal associated with child sex offending that makes it a rewarding behaviour. Indeed the addiction literature has indicated that, although there are numerous motives, one motive for engaging in behaviours such as gambling is to experience a rush of emotion or physiological arousal whether positive or negative in tone (Cotte, 1997; Ricketts & Macaskill, 2004). Therefore, although child sex offending may be associated with negative affect, it is plausible that the observed rapid onset in respiration rate experienced immediately prior to offending may be both rewarding and pleasurable. In support of this view, the trauma literature has shown that whereas traumatic experiences, such as engaging in combat during war time, are by their very nature associated with intense negative reactions, rushes of intense psychophysiological activation associated with such experiences may be enjoyable (Grigsby, 1991). Hence, there is some research to support the suggestion that the present sample of child sex offenders may have found the initially rapid increase in respiration rate to be both rewarding and pleasurable.

However, conclusions regarding the meaning of the rapid increase in respiration rate are tentative given there were no significant differences in the other psychophysiological indices (i.e., heart rate and skin conductance). Notwithstanding this limitation, the present results suggest that the processes occurring during sex offending are most likely deviant and unique to sex offending for the majority of the present sample of child sex offenders.

The comparisons of Offenders' and Controls' responses to the CSA script supported the notion that the child sex offenders in this study engaged in processes that are unique and deviant. When compared with Control's responses to the CSA script, it was evident that the Offenders' sexual excitement was strengthening whereas Controls responded specifically to the sexual content at the Incident stage.

The Offenders' peri-offence response was defined by increased sexual arousal in the Approach stage occurring before the sexual act had taken place.

Partially supportive of this study's hypothesis, Offenders demonstrated significantly higher respiration rate than Controls during the stages of the CSA script depicting the lead up to and actual commission of the sex offence. This pattern of response for respiration rate is consistent with the elevations in arousal demonstrated by Masters and Johnson's (1966) description of the sexual response cycle. However, it must be noted that there were no significant differences in heart rate and skin conductance. In addition to the differences in respiration rate, Offenders' ratings of sexual arousal and positive affect, namely happiness, were significantly higher than Controls' ratings at each stage of the CSA script except for the initial stage depicting the Scene. These differences in respiration rate and psychological responses as well as self-reported sexual arousal are consistent with research suggesting that child sex offenders are more sexually deviant when compared with Controls (Freund, 1965, 1967a, 1967b; Marshall et al., 1986; Murphy et al., 1986; Quinsey & Chaplin, 1988; Quinsey et al., 1975).

Further to this, and, as expected, the respiration rate of Controls was higher in the Consensual relative to the CSA script during the Approach stage, which depicted the immediate moments leading up to the pinnacle of the sexual act. Unexpectedly however, there were no significant differences between scripts, for either group, for heart rate and skin conductance. Nonetheless, positive affect, desire for sex and sexual arousal were rated by Controls to be significantly higher during most stages of the Consensual compared to the CSA script. In addition, the respiration rate of Controls did not differ significantly across the stages of the CSA script. Therefore, Controls' pattern of response overall to the Consensual and CSA scripts was indicative of a non-deviant reaction.

Research has indicated that more realistic and appropriate psychophysiological responses are achieved by using personalised events rather than standard events that the individual has not experienced (Pitman et al., 1987). In the current study, the CSA script for Controls depicted standardised events and, as such, may have failed to elicit appropriate and realistic psychophysiological responses. Nonetheless, phallometric studies have indicated that non-offenders may demonstrate increased sexual arousal to standard sexual stimuli depicting children despite not having engaged in such behaviour with children (Green, 2002; Hall, Hirschman, & Oliver, 1995). Therefore, it is plausible that Controls experienced relatively low and unchanging levels of psychophysiological arousal in response to the CSA script because they were not aroused by the events described. However, these conclusions are tentative given that, with the exception of respiration rate, there were no significant interactions or main effects for the psychophysiological indices (i.e., heart rate and skin conductance). Hence, the present discussions of results pertaining to psychophysiological responses are based solely on the differences observed in respiration rate.

Despite the fact that certain patterns of results supported the notion that the processes occurring during child sex offending are unique and deviant, there were ostensibly inconsistent results. Most notably, Controls and Offenders did not differ in ratings of negative affect in response to the CSA script. Although it was expected that Controls would experience negative emotions in response to the CSA script, it was anticipated that Offenders would experience high levels of sexual arousal and, therefore, correspondingly high levels of positive affect and low levels of negative affect (Koukounas & McCabe, 1997, 2001; Mitchell et al., 1998; Nobre et al., 2004). In contrast, a range of negative emotions, such as guilt, anger, anxiety and agitation,

were experienced by both Offenders and Controls particularly during the Consequence and Resolution stages of the CSA script.

These negative emotions in the latter stages of the CSA script are presumably indicative of negative evaluations taking place suggesting that Offenders were aware of the iniquity of their actions and the possible negative societal consequences. Thus, the present results appear to be at odds with expectations regarding the rewarding nature of child sex offending. However, these results are aptly explained by the previous suggestion that although child sex offending is associated with negative evaluations, the rapid increase in respiration rate associated with offending in the present sample of child sex offenders may be enjoyable and hence sought after.

It is worthy of mention that there were some unexpected differences between Offenders and Controls in psychophysiological and psychological responses to the Neutral script. Offenders demonstrated significantly higher respiration rate in response to the initial three stages of the Neutral script when compared with Controls. There was little variation in the respiration rate of Controls across the stages of the Neutral script. On the other hand, Offenders demonstrated higher respiration at the end of the Neutral script which typically depicted the Offender waiting to be released from their cell. These results are reflective of the differences between Offenders and Controls in the settings in which the neutral events took place. Offenders described an event occurring in the prison setting whereas Controls typically described an event taking place in their own home. It is probable that people may be more reactive in a prison setting than in their own home. However, this conclusion is tentative given that there were no significant interactions or main effects for heart rate and skin conductance and, as such, differences were observed only in respiration rate.

In summary, the present series of comparisons of responses to adult consensual sex and child sex offending have offered a number of implications for understanding the nature of the processes occurring during child sex offending. Most notably, the results have largely supported suggestions that the problematic processes demonstrated by child sex offenders are tied to their offending (Ward, Hudson et al., 1995). The Offenders in the present sample demonstrated an abnormal pattern of response to the CSA script in which respiration rate and self-reported sexual arousal rapidly increased despite escalating negative affect. Through drawing parallels between this pattern of response and similar types of reactions to other problematic behaviours and experiences (Cotte, 1997; Grigsby, 1991; Ricketts & Macaskill, 2004), it was suggested that child sex offending may be a rewarding though maladaptive behaviour. However, as previously noted, this conclusion is tentative given there were no significant differences in heart rate and skin conductance and, hence, differences were observed only in respiration rate.

This research supported the merit of applying a guided imagery methodology in the quest to ascertain whether the processes occurring during child sex offending are unique and deviant. Although the processes occurring during child sex offending have been described in detail, the developers of sex offence process models (e.g., Hudson et al., 1999; Ward, Loudon et al., 1995) did not establish a normal point of comparison with which the sex offence process could be contrasted. It has been argued in previous chapters as well as in the present that offence process models are limited in explanatory power, as they have not established whether the processes occurring during sex offending may be considered deviant or abnormal. Using a guided imagery methodology, the current study firstly established a description of a non-deviant response for the present sample of child sex offenders and non-offending controls. This non-deviant response was then compared with the Offenders'



responses to the CSA script to provide tentative support for the proposition that the processes occurring during child sex offending are unique and deviant. This support is tentative given responses to the Consensual and CSA scripts were not homogenous and the results were based on a small sample of 12 child sex offenders. Given the present sample of child sex offenders may not be representative of larger samples of child sex offenders, considerable caution must be placed in interpreting the results of this study. Furthermore, descriptions of psychophysiological processes were limited in that they were based solely on respiration rate because there were no significant interactions or main effects for heart rate and skin conductance.

Nonetheless, the present investigation has highlighted the usefulness of considering objective measurements of the processes occurring during offending. Although self-reported emotional responses to imagery suggested there was little that was remarkable about Offenders' responses to the CSA script, the combination of rapidly increasing respiration rate and mixed affect, in fact, suggested that, for the present sample of child sex offenders, the processes occurring during offending are unique and deviant. Supportive of the validity of the objective psychophysiological measures employed, there appeared to be a high concordance between respiration rate and subjective ratings of sexual arousal. This concordance supports previous research indicating that changes in general ANS arousal corresponded with phases of the sexual response cycle (e.g., Masters & Johnson, 1966). The benefit in taking concurrent measurements of both psychological and psychophysiological responses was that it was possible to decipher the meaning of various psychophysiological responses. Nonetheless, further research is required to determine the extent to which other psychophysiological indices, besides respiration rate, may be reliably employed to investigate the processes occurring during child sex offending.

Researchers who use phallometry have argued that indicators of general arousal reflect sexual arousal only very weakly (Freund, 1981). It has been argued that general ANS arousal responses are not considered to be specific to sexual arousal and, therefore, it is difficult to interpret whether general indicators of arousal in response to erotic stimuli are indicative of sexual arousal or other emotional experiences such as fear or anger (Freund, 1981). However, this phallometric research has relied exclusively on standard stimuli. Arguably more realistic and meaningful ANS responses were elicited through using a personalised guided imagery methodology.

Despite the significant results produced by the current methodology, there are a number of noteworthy limitations. Most notably, the number of participants was small (N=24), and, as such, the reliability of the present findings would be strengthened through conducting replication studies utilising independent and larger samples. Additionally, it has been noted that there was substantial variability in responses, particularly with regard to Offenders' responses to the Consensual script. Therefore, it is plausible that the conclusions drawn about the non-deviant nature of responses to adult consensual sex may not equally apply to different subtypes of child sex offenders. As discussed in Chapter Three, Ward and Hudson (1998a, 2000a) have proposed that there are distinct pathways of psychological processes occurring during sex offending that vary based on offender subtype. Combining offender subtypes in the present study may have masked important differences in responding between offender subtypes.

Therefore, it is pertinent now, in the next chapter, to explore differences in the psychophysiological and psychological processes taking place during the multiple pathways to offending proposed by Ward and Hudson (1998a, 2000a). By establishing a non-deviant point of comparison in sexual responses, it will be

possible to ascertain whether certain pathways to offending may be described as relatively more deviant than other pathways. Moreover, the following chapter will address the lack of empirical validation for many of the assumptions and predictions made by Ward and Hudson's (1998a, 2000a) Self-Regulation model.

## CHAPTER FIVE: PERI-OFFENCE PROCESSES: PSYCHOPHYSIOLOGICAL CORRELATES OF THE SELF-REGULATION MODEL

### 5.1 Introduction

In previous chapters it was argued that there are three main limitations of Ward and Hudson's (1998a, 2000a) Self-Regulation model of the sex offence process. These limitations identified were the model's reliance on offender self-report, the exclusive focus on deviant behaviour and the lack of empirical verification of assumptions. Chapter Four presented Study One which sought to address the limitations pertaining to reliance on offender self-report and focus on deviant sexual behaviour. A guided imagery methodology was introduced and applied to examine the psychological and psychophysiological process occurring in response to recollections of adult consensual sex and child sex offences. A guided imagery examination of psychophysiological processes demonstrated that, in the present sample, child sex offending was associated with a rapid escalation in respiration rate and it was proposed that this escalation in arousal, as indexed by respiration rate, may function to reinforce this maladaptive behaviour in the majority of the present sample of child sex offenders.

However, it was noted that descriptions of the psychophysiological processes occurring during child sex offending were limited in that they were based solely on respiration rate due to the fact that there were no significant interactions or main effects for the other psychophysiological indices measured. Despite this limitation, it was argued that this objective assessment of psychophysiological responses furthered the understanding of the processes occurring during sex offending.

In addressing the limitation regarding the Self-Regulation model's exclusive focus on deviant behaviour, Study One indicated that child sex offenders, similar to

non-offending controls, demonstrated non-deviant psychophysiological, as indexed by respiration rate, and psychological processes in response to recollections of adult consensual sex (Koukounas & McCabe, 1997, 2001; Masters & Johnston, 1966; Mitchell et al., 1998; Nobre et al., 2004). However, when compared with their responses to the Consensual script, Offenders demonstrated a pattern of rapid escalation in respiration rate and sexual arousal to the CSA script that preceded an increase in negative affect. It was concluded that this pattern of response suggested that the processes experienced by offenders during child sex offending may justifiably be deemed both unique and deviant. However, it was noted in Study One that there was considerable variability in response patterns of child sex offenders.

This variability in response patterns is consistent with Ward and Hudson's (1998a, 2000a) proposition of different pathways to child sex offending. As discussed in depth in previous chapters, research has indicated that subtypes of child sex offenders demonstrate different patterns of psychological processes during sex offending (Hudson et al., 1999; Polaschek et al., 2001; Proulx et al., 1997, 1999; Ward, Loudon et al., 1995).

Despite support for the existence of different pathways to offending, the Self-Regulation model's (Ward & Hudson, 1998a, 2000a) descriptions of the progression and nature of these offence processes have received little empirical verification. A more recent study demonstrated independent support for the content validity of the Self-Regulation model descriptions across the proposed nine phases using a grounded theory analysis (Webster, 2005). Although preliminary support for the Self-Regulation model is encouraging, the accuracy of the Self-Regulation model to date has been tested solely by use of Strauss and Corbin's (1990) method of grounded theory analysis. It is debatable whether it is appropriate to independently test the descriptive validity of the Self-Regulation model using inductive analysis. It

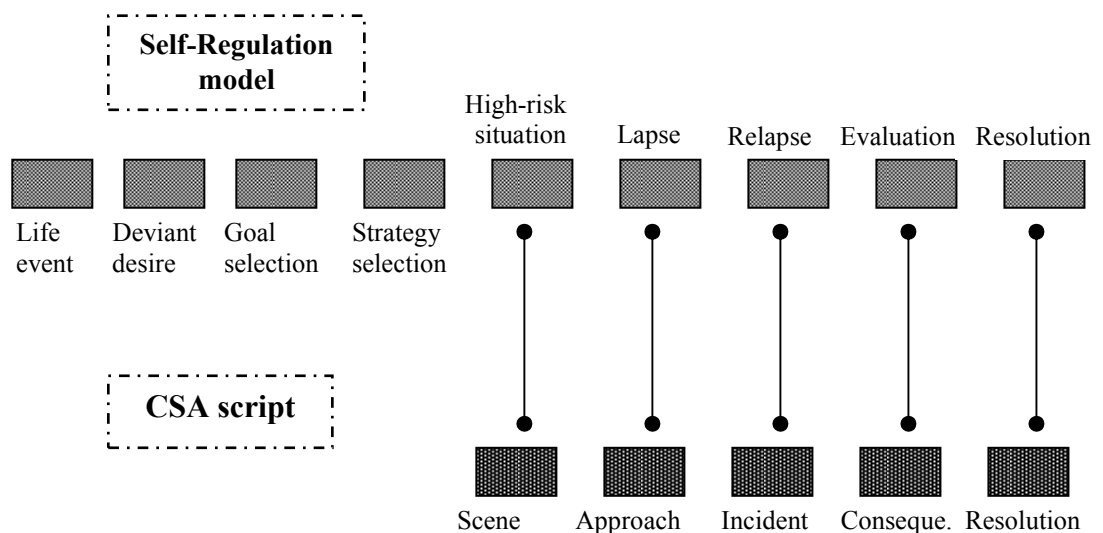
is somewhat conflicting to propose to test the validity of a theory through inductive analysis of data given that the point of the analysis is to confirm a pre-existing theory. It is proposed that a more appropriate test of the Self-Regulation model's offence process descriptions at each phase would require a deductive analysis of data using an independent methodology. Therefore, it is proposed that a guided imagery methodology be employed to examine assumed differences in patterns of responses between the four pathways to sex offending.

Ward and Hudson's (1998a, 2000a) Self-Regulation model is comprised of a number of assumptions that have important implications for furthering understandings of the processes associated with sex offending. A fundamental assumption underlying the Self-Regulation model is that offence processes are dynamic in nature. Consistent with this assumption, the Self-Regulation model describes the unfolding of key processes across a sequence of nine phases (Ward, 2000; Ward & Hudson, 1998a, 2000a). Although these phases were detailed in Chapter Three, they will be briefly outlined here for the purpose of establishing testable assumptions at each phase.

In the Self-Regulation model, the commencement of the offence process is signaled by the encountering of a significant event, that may occur months prior to offending and, in turn, triggers an offenders' desire for deviant sex or otherwise maladaptive behaviour. The acceptance of offence related goals that are acquisitional (i.e., Approach) or inhibitory (i.e., Avoidant) in nature is said to follow in phase three. Subsequent to goal determination, goal-related strategies are engaged in phase four. The strategies adopted may be selected either unconsciously (i.e., automatic/Passive) or consciously (i.e., explicit/Active). In phase five, the offender is said to enter the high risk situation in which they are in the presence of the victim. Following this encounter, the offender is said to experience a Lapse before

proceeding to commit the offence and, hence, relapse. Following phase seven in which the offence is committed, the offender supposedly engages in two final phases where offence evaluations followed by future resolutions take place.

The present chapter proposes to examine the validity of the processes described in the phases of the Self-Regulation model using a guided imagery methodology. A guided imagery methodology focuses on detailing the processes occurring in the immediate moments transpiring before, during and after the behaviour of interest (Haines et al., 1995). Therefore, the CSA script, as employed in Study One, captures in detail the aspects of the offence process corresponding closely with the phases of the Self-Regulation model describing the encountering of the high risk situation (phase five) through to the development of future resolutions (phase nine). The connection between the stages of the CSA script and the phases of the Self-Regulation model are outlined in Figure 11.



**Figure 11.** Correspondence between the nine phases of the Self-Regulation model and the five-staged CSA script

Thus, it is proposed that many of the Self-Regulation models' assumptions pertaining to the processes occurring in the immediate moments surrounding the commission of the sex offence may be tested by examining responses to the CSA script. However, the five-staged CSA script cannot assess the Self-Regulation model's assumptions pertaining to the progression of processes occurring in the first four phases depicting the experience of a life event, triggered deviant desire and selection of goals and strategies. The events described in the first four phases of the model may unfold over considerable lengths of time and, as such, are not amenable to a guided imagery investigation. Nevertheless, it may be argued that a guided imagery methodology will allow for a more fine grained analysis of processes and is capable of identifying subtle but important changes in processes that may otherwise be overlooked by the Self-Regulation model. In particular, it is expected that a guided imagery methodology will permit a more detailed description of the process taking place during the commission of the offence, as the Self-Regulation model provides little description of the processes occurring during this phase.

## 5.2 Study Two: Differences between Pathway Offenders in Psychophysiological Responding to Sexual Offence and Consensual Scripts

The aim of Study Two is twofold. Firstly, this study aims to independently validate a number of predictions and assumptions emanating from the Self-Regulation model with regard to the differences between the proposed four pathways of processes occurring during sex offending (Ward & Hudson, 1998a, 2000a). These assumptions and predictions will be tested using the guided imagery methodology outlined in Study One. Additionally, a number of the assumptions and predictions of the Self-Regulation model imply that some types of pathway offenders will demonstrate deficits in general relationships (Hudson & Ward, 2000). Thus, the



second aim of this study is to examine differences in psychological and psychophysiological responding to consensual adult sex between the Approach-Avoidant and Active-Passive pathways to offending (Ward & Hudson, 1998a, 2000a). There was considerable variability in the Offenders' responses to the consensual sexual activity in Study One and, thus, it is plausible that offenders may differ in the processes occurring during recollections of adult consensual sex.

Due to the small sample size for Study Two (N=12), two separate analyses will be conducted to address the Approach-Avoidant goal and Active-passive strategy dimensions of pathways to offending proposed by Ward and Hudson (1998a, 2000a). The first analysis will attend to the predictions and assumptions relating to differences between Approach and Avoidant goal offenders. The second analysis will address predictions and assumptions relating to difference between Active and Passive strategy offenders.

#### *5.2.1 Analysis One of Study Two*

Analysis One of Study Two aims to apply a guided imagery methodology to test a number of hypotheses regarding patterns of responses expected from Approach and Avoidant goal pathway offenders during phase five (high-risk situation) through to phase nine (future resolutions) of the Self-Regulation model. These hypotheses will be tested by examining responses to the CSA script. In addition, given the variability in responses to the Consensual script in Study One, differences between pathway offenders in responses to the Consensual script will be explored.

The central focus of the Self-Regulation model is on the processes associated with Approach and Avoidant goals. As such, there has been considerable empirical support for the validity of distinguishing between child sex offenders possessing either Approach or Avoidant goals (Bickley & Beech, 2002, 2003; Hudson & Ward,

2000; Hudson et al., 1999; Proulx et al., 1997, 1999; Ward & Hudson, 1998a, 2000b; Ward et al., 1998; Ward, Loudon et al., 1995).

The Self-Regulation model makes a number of predictions regarding the progression of processes experienced by offenders seeking to achieve either Approach or Avoidant goals (Ward & Hudson, 1998a, 2000a). A basic prediction made by the Self-Regulation model is that goals are dynamic in nature and, hence, the predominant goal possessed by an offender may change during the course of the offence (Polaschek et al., 2001; Ward & Hudson, 1998a, 2000a). They specifically postulate that all offenders will adopt approach goals during the lapse stage of the offence, which corresponds to the Approach stage of the CSA script. In addition, the Self-Regulation model proposes that Approach offenders will possess approach goals throughout the offence. Therefore, it is hypothesised that there will be a significant decrease in ratings of avoiding sex from the Scene to the Approach and Incident stages of the CSA script for Avoidant goal offenders.

Coinciding with Avoidant offenders' proposed increased endorsement of approach goals in the Approach and Incident stages of the CSA script, it is plausible that there will be no differences between Approach and Avoidant offenders in the endorsement ratings of avoiding sex during these stages. However, before the adoption of approach goals in the Approach stage, it is proposed that Avoidant offenders will endorse significantly higher ratings of avoiding sex than Approach offenders during the Scene stage of the CSA script. Furthermore, given that the Self-Regulation model proposes that Approach offenders will experience predominantly positive evaluations of the offence, it is proposed that Approach offenders will report significantly lower ratings of avoiding sex than Avoidant offenders at the Consequence and Resolution stages of the CSA script. These latter stages of the

CSA script coincide with phase eight (post-offence evaluation) and nine (future resolutions) of the Self-Regulation model.

In addition to predictions regarding changes in goals, the Self-Regulation model assumes that the two major types of goals are associated with different affective states (Ward & Hudson, 1998a, 2000a). The model specifically states that the predominant emotion experienced by Approach goal offenders during offending is positive in valence (Ward & Hudson, 1998a, 2000a). In contrast, it is proposed that the predominant emotion experienced by Avoidant offenders during offending is negative in tone. The exception to this is that, due to an adoption of approach goals by all offenders during the lapse and relapse phases, the predominant emotion experienced during these phases will be positive in valence (Ward & Hudson). Thus, no significant between-group differences in ratings of positive emotions are predicted for the Approach and Incident stages, as these stages are comparable to phases six (lapse) and seven (relapse) of the Self-Regulation model.

It follows from these predictions, that there will be significant between-group differences in valence ratings during the Scene, Consequence and Resolution stages of the CSA script, as these stages correspond respectively with phase five (high-risk situation), eight (post-offence evaluation) and nine (future resolution) of the Self-Regulation model. It is predicted that Approach goal offenders, when compared with Avoidant offenders, will endorse significantly higher ratings of positive emotions in response to the Scene, Consequence and Resolution stages of the CSA script. In view of this, Avoidant goal offenders are expected to report significantly higher ratings than Approach offenders of negative affect in the Scene, Consequence and Resolution of the CSA script.

A further proposal of the Self-Regulation model is that Approach goal offenders exhibit high levels of deviant sexual arousal (Ward & Hudson, 1998a,

2000a). This proposal clearly has implications for risk assessment, as research has indicated that deviant sexual arousal is predictive of sexual re-offending (e.g., Hanson & Bussière, 1996, 1998; Hanson & Morton-Bourgon, 2004). Given the potential explanatory and practical significance of this variable, it is imperative that this assumption is empirically tested.

Offence process models have consistently demonstrated evidence of an explicit planning pathway to sex offending that is associated with positive evaluations and high levels of deviant sexual arousal (e.g., Proulx et al., 1997, 1999; Ward, Loudon et al., 1995). However, the Self-Regulation model extrapolates from these findings to suggest that offenders who possess approach goals will exhibit high levels of deviant sexual arousal. The evidence suggests that explicit planning pathways, rather than Approach goal pathways, are associated with deviant sexual arousal. Nevertheless, the present study will decipher whether approach goals, irrespective of explicit planning, are associated with higher levels of deviant sexual arousal.

There are two types of comparisons that may be drawn to ascertain whether Approach pathways are associated with higher levels of deviant sexual arousal. Firstly, and most simply, this assumption may be tested by examining between-group differences in ratings of sexual arousal in response to the CSA script. If the Self-Regulation model's assumption is correct, then Approach offenders will report significantly higher ratings of sexual arousal than Avoidant offenders in response to the CSA script.

A more thorough means for testing this assumption of the Self-Regulation model is to compare the pattern of Approach and Avoidant goal offenders' responses to the CSA and Consensual scripts. In Study One, it was noted that a non-deviant point of comparison is necessary to decipher whether a response may be considered

deviant. Furthermore, phallometric assessments examine the relative response to deviant and non-deviant stimuli to identify a sexually deviant response (Looman et al., 2001; Miner et al., 1995). Clearly then, a sexually deviant response using the present guided imagery methodology would be represented by either higher sexual arousal in response to the CSA script compared with the Consensual script or equal levels of arousal in response to these two scripts.

However, given the dynamic nature of sexual arousal (Masters & Johnson, 1966), as demonstrated in Study One, ratings of sexual arousal are not expected to remain stable across the stages of the CSA and Consensual scripts. Whereas sexual arousal may be low during the Scene as well as the Consequence and Resolution stages, ratings of sexual arousal are expected to increase significantly in the Approach and Incident stages. This prediction is in line with Masters and Johnson's (1966) research, which demonstrated that the peak of sexual arousal occurs in the plateau and orgasmic phases of the human sexual response cycle. Given the intensity of sexual arousal is predicted to peak in the Approach and Incident stages of the two scripts depicting sexual behaviour (Consensual script, CSA script), it is at these stages that the greatest differences between scripts are predicted.

Therefore, it is hypothesised that Approach offenders will rate sexual arousal to be either significantly higher or equal in the CSA script relative to the Consensual script during the Approach and Incident stages. In contrast, it is predicted that Avoidant goal offenders will rate sexual arousal to be significantly higher in the Consensual script than in the CSA script during the Approach and Incident stages. Furthermore, consistent with the previous chapter's findings, it is hypothesised that both Approach and Avoidant offenders will report significantly higher sexual arousal in response to the CSA and Consensual scripts relative to the Neutral script during the Approach and Incident stages.

While the above predictions will ascertain the accuracy of the Self-Regulation model's process descriptions, they are limited to reliance on offender self-report. It was observed in Study One that objective psychophysiological assessment of responses to the CSA and Consensual scripts offered further insight into the motivating properties of offence processes. Accordingly, it is expected that a psychophysiological examination of responses to the CSA script will allow for further empirical validation of the Self-Regulation model's assumptions and, in addition, may uncover more subtle though informative processes.

Changes in affect are expected to be accompanied by changes in psychophysiological arousal. In Chapter Four, research was presented which indicated that changes in psychophysiological autonomic arousal are associated with varying emotional states (Ax, 1953; Herpertz et al., 1999; Lang, 1979; Levenson, 1992; Yoon-Ki et al., 2005). However, Study One failed to find changes in psychophysiological arousal that corresponded with changes in affect. It was likely that changes in psychophysiological arousal were uninfluenced by changes in affect due to the moderate levels of affect reported. Research has shown that strong negative affective states, such as anxiety and anger, are associated with increased psychophysiological responses (Ax, 1953). Given that high levels of negative affect would likely be reported by Avoidant offenders in the Scene as well as in the subsequent stages of the CSA script, it is predicted that psychophysiological arousal will be higher for the Avoidant group relative to the Approach group during the Scene, Consequence and Resolution stages. This rationale suggests that there will be no significant between-group differences in psychophysiological arousal during the Approach and Incident stages of the CSA script, as both groups are expected to adopt Approach goals and hence experience positive emotions during these stages.

However, as indicated by the results of Study One, changes in sexual arousal

are associated with changes in psychophysiological arousal (Masters & Johnson, 1966). Nonetheless, it should be noted that significant differences were obtained only in respiration rate and not in the other psychophysiological responses measured in Study One. Between-group differences in sexual arousal are expected to occur in the Approach and Incident stages of the CSA script, as Masters and Johnson's (1966) research indicated that sexual arousal and psychophysiological arousal reaches peak intensity during the late plateau and orgasmic phases of the human sexual response cycle. The Approach and Incident Stages of both the CSA and Consensual scripts correspond to the late plateau and orgasmic phases described by Masters and Johnson.

Hence, it is hypothesised that Approach offenders will demonstrate significantly higher psychophysiological arousal than Avoidant offenders during the Approach and Incident stages of the CSA script. Also consistent with expected patterns of sexual arousal response to the CSA and Consensual scripts, it is predicted that the Approach group will demonstrate either equal or significantly greater psychophysiological arousal in response to the CSA script relative to the Consensual script during the Approach and Incident stages. In contrast, it is expected that Avoidant offenders will demonstrate significantly higher psychophysiological responses to the Consensual script than to the CSA script during the Approach and Incident stages. Furthermore, consistent with the view that sexual arousal will be higher in the CSA and Consensual scripts relative to the Neutral script, it is hypothesised that both Approach and Avoidant offenders will demonstrate significantly higher psychophysiological responses to the CSA and Consensual scripts relative to the Neutral script during the Approach and Incident stages.

Finally, to further expand the Self-Regulation model and to further elucidate differences between Approach and Avoidant offenders, their responses to

recollections of a consensual sexual experience with another adult will be examined. Consistent with the emerging view that Approach goal offenders are sexually deviant, it is expected that Approach offenders will exhibit an abnormal response to the Consensual script when compared with Avoidant offenders. Consistent with the non-deviant pattern of response to the Consensual script observed in Study One, it is hypothesised that Avoidant offenders' ratings of sexual arousal, positive affect and psychophysiological arousal will peak in the Approach and Incident stages of the Consensual script. This predicted peak in responding during the Approach and Incident stages is consistent with Masters and Johnson's (1966) research investigating the human sexual response cycle. Furthermore, it is hypothesised that Avoidant offenders, when compared with Approach offenders, will report significantly higher sexual arousal and positive affect and demonstrate significantly elevated psychophysiological responses to the Approach and Incident stages of the Consensual script.

The following section will provide a summary of the hypotheses for Analysis One. With regard to between-group differences in response to the CSA script:

1. Approach offenders will respond with higher ratings of sexual arousal.
2. During the Scene, Consequence and Resolution stages, Avoidant offenders will demonstrate higher psychophysiological arousal and ratings of avoiding sex and negative affect. Approach offenders will report higher positive affect.
3. During the Approach and Incident stages, Approach offenders will demonstrate higher psychophysiological arousal. Between-group differences are not expected for ratings of avoiding sex or positive and negative affect.

There were two main predictions with regard to significant changes predicted across the stages of the CSA script.



1. For Avoidant offenders only, there will be a decrease in ratings of avoiding sex and negative affect in the Approach and Incident relative to the Scene.
2. For both groups, ratings of sexual arousal and, hence, psychophysiological arousal will increase during the Approach and Incident relative to the Scene.

A number of predictions were made addressing between-script differences in responses. Firstly, significant differences in responses to the CSA script relative to the Consensual script were predicted during the Approach and Incident.

1. Approach offenders will either demonstrate no between-script difference or will respond with higher psychophysiological arousal and ratings of sexual arousal to the CSA script. In contrast, Avoidant offenders will demonstrate higher psychophysiological arousal and will rate sexual arousal to be higher in the Consensual script.

Secondly, significant differences in responses to the CSA and Consensual scripts relative to the Neutral script were predicted during the Approach and Incident stages.

1. Both groups will demonstrate relatively higher psychophysiological arousal and ratings of sexual arousal during the CSA and Consensual scripts.

Finally, predictions were made with regard to between group differences and across script changes in response to the Consensual script.

1. Avoidant offenders' ratings of sexual arousal, positive affect and psychophysiological arousal will peak in the Approach and Incident whereas the ratings of Approach offenders across stages will not differ.
2. Avoidant offenders will demonstrate higher psychophysiological arousal and ratings of sexual arousal and positive affect than Approach offenders during the Approach and Incident.

### 5.2.2 *Analysis Two of Study Two*

Analysis Two aims to use a guided imagery methodology to test a number of hypotheses regarding patterns of response expected from Active and Passive pathway offenders to the CSA and Consensual scripts. The Active and Passive strategy pathways to sex offending have been the focus of relatively less research when compared with the Approach and Avoidant goal pathways to sex offending. The central focus of the Self-Regulation model (Ward & Hudson, 1998a, 2000a) is the processes associated with the adoption of approach and avoidant goals. Furthermore, the empirical evidence for the validity of the Active-Passive distinction (e.g., Bickley & Beech, 2002) is relatively sparse. It is plausible that the significance of the adoption of active and passive goal-attainment strategies is in their interacting effects with approach and avoidant goals. However, the relatively small sample size (N=12) does not permit an analysis of the four combined pathways. As a result, the predictions for this analysis are somewhat speculative and exploratory.

Having said this, it is logically plausible that Active pathway offenders will, by their very nature, report greater planning in the commission of their offences when compared with Passive offenders. However, unlike offenders' goals, the Self-Regulation model does not clearly stipulate whether an offender's selection of a strategy to achieve their goal may change during the course of the offence.

Ward and Hudson's (2000b) discussion of implicit pathways to offending have suggested that it is plausible that initial offence processes leading to the encountering of a high-risk situation may occur without conscious awareness. However, it was proposed that ensuing the encountering of a high risk situation, offence processes may become more explicit. Thus, it is logical to expect that offender strategy should become explicit (i.e., Active) during the lapse and relapse phases which equate to the Approach and Incident stages of the CSA script. It is

hypothesised that Active offenders will report significantly higher planning during the Scene stage of the CSA script relative to Passive offenders. No significant differences in ratings of planning are expected during the Approach and Incident stages, as it is predicted that Passive offenders will report significantly higher ratings of planning during these stages. Similarly, Active and Passive offenders should report significantly lower levels of planning during the Consequence and Resolution phases following the commission of the offence.

It is anticipated that conscious awareness and planning will result in elevated psychophysiological arousal. Research has indicated that instructional imaging of actions associated with preparing for a complex task result in an increase in psychophysiological arousal (e.g., Bolliet et al., 2005). Accordingly, it is expected that differences between groups in initial planning and self-awareness will produce differences in psychophysiological arousal. It is hypothesised that Active offenders relative to Passive offenders will demonstrate greater psychophysiological arousal in response to the Scene of the CSA script. Furthermore, it is proposed that for Passive offenders but not Active offenders, there will be a significant increase in psychophysiological arousal from the Scene to the Approach stage of the CSA script.

A number of assumptions and predictions regarding differences in self-regulation skills between Active and Passive strategy offenders have also been noted (e.g., Hudson & Ward, 2000). Namely, it has been proposed that Passive pathways to offending are characterised by under-regulation and, as such, Passive pathway offenders possess deficiencies in self-regulation skills and self-awareness whereas these aspects are generally intact in Active strategy offenders (Hudson & Ward, 2000). However, Passive pathway offenders are expected to engage in more active planning subsequent to encountering the high-risk situation. Therefore, it is hypothesised that Active pathway offenders will report significantly higher control

and confidence than Passive offenders in the Scene of the CSA script as their initial processing should be under greater conscious control at this stage. Furthermore, it is hypothesised that Passive offenders' ratings of confidence and control will increase significantly in the Approach and Incident stages, and, as such, there will be no significant between-group differences in ratings of control and confidence during these stages. There is no clear rationale regarding possible between-group differences in ratings for the post-offence phases and, thus, no significant differences between Active and Passive offenders are predicted for the Consequence and Resolution stages of the CSA script.

There have been a number of proposed differences between Active and Passive offenders with regard to relationship skills that may be empirically tested by comparing the responses of these two groups to the Consensual script. Hudson and Ward (2000) suggested that Passive strategy offenders, particularly Approach Automatic (i.e., Passive) offenders, would likely present with deficits in relationship/social skills. Therefore, it is predicted that Active offenders will report significantly higher feelings of control and confidence in response to the Consensual and Neutral scripts than will Passive offenders.

Finally, the Self-Regulation model descriptions of Active and Passive strategy pathways to offending imply differences in sexual deviance. It has been proposed that the automatic offence processes characterising Passive pathways to offending are suggestive of a long offence history (Ward & Hudson, 2000b) and, therefore, a greater risk for sexual recidivism (e.g., Hanson & Bussière, 1996, 1998). Given the strongest predictor of sexual recidivism is deviant sexual arousal (e.g., Hanson & Bussière, 1996, 1998), it is expected that Passive strategy offenders will exhibit deviant sexual responses. As Masters and Johnson's (1966) research indicated that sexual and psychophysiological arousal as well as positive affect peak

during the late plateau and orgasmic phases, it is hypothesised that Passive offenders will report significantly higher sexual arousal than Active offenders in response to the Approach and Incident stages of the CSA script. The Approach and Incident Stages of both the CSA and Consensual scripts correspond to the late plateau and orgasmic phases described by Masters and Johnson.

Given the intensity of sexual and psychophysiological arousal is predicted to peak in the Approach and Incident stages of the two scripts depicting sexual behaviour (Consensual script, CSA script), it is at these stages that the greatest differences between scripts are predicted. Thus, it is hypothesised that Passive offenders will demonstrate either equal or significantly higher sexual arousal, psychophysiological arousal and positive affect in response to the CSA script relative to the Consensual script during the Approach and Incident stages. On the other hand, it is hypothesised that Active strategy offenders will demonstrate significantly higher psychophysiological arousal and will report greater sexual arousal and positive affect in response to the Consensual script compared with the CSA script during the Approach and Incident stages. However, it also anticipated that, for both groups, ratings of sexual arousal as well as psychophysiological arousal will be significantly higher in the CSA and Consensual scripts compared to the Neutral script.

The following section will summarise the hypotheses for Analysis Two. A number of hypotheses were generated with regard to responses to the CSA script.

1. Active offenders will demonstrate higher psychophysiological arousal and ratings of planning, confidence and control during the Scene relative to Passive offenders.
2. Passive offenders will report higher sexual arousal during the Approach and Incident when compared with Active offenders.

3. Passive offenders' psychophysiological arousal and ratings of planning, confidence and control will increase from the Scene to the Approach.
4. No between-group differences in ratings of planning, confidence and control or psychophysiological arousal are expected during the latter stages although ratings will be relatively higher during the Approach and Incident compared with the Consequence and Resolution.

With regards to between-group differences in responses to the Consensual and Neutral scripts, it was hypothesised that:

1. Active offenders will report higher feelings of control and confidence.

Furthermore, there were a number of hypotheses pertaining to between-script differences at the Approach and Incident stages.

1. Passive offenders will demonstrate either equal or higher sexual arousal, psychophysiological arousal and positive affect in response to the CSA script relative to the Consensual script.
2. Active offenders will demonstrate higher psychophysiological arousal and ratings of sexual arousal and positive affect in response to the Consensual script compared with the CSA script.
3. For both groups, ratings of sexual arousal as well as psychophysiological arousal will be significantly higher in the CSA and Consensual scripts compared to the Neutral script.

### 5.3 Method

#### *5.3.1 Participants*

Participants consisted of the 12 child sex offenders described in Study One.

### 5.3.2 Materials

*Scales and checklists.* The VASs employed in this study were the same as those reported in Study One.

To aid in pathway allocation, Ward and Hudson's (1998a) four case examples of each pathway were used (please refer to appendix J for a copy). In addition, Bickley and Beech's (2002) checklist for pathway allocation was used (see appendix K). This checklist requires the researcher to rate each individual on a scale from 0 to 10 on a number of factors considered pertinent to the Approach-Avoidant as well as the Active-Passive distinction.

*Imagery scripts.* The same imagery scripts as those used in Study One were employed in this study.

### 5.3.3 Apparatus and Psychophysiological Recording

As reported in Study One, psychophysiological measures consisted of heart rate (beats per minute), respiration rate (breaths per minute) and skin conductance level.

### 5.3.4 Procedure

The two-session procedure for the five-staged guided imagery methodology was outlined in depth in Study One. In addition, in order to classify participants into Ward and Hudson's (1998a, 2000a) pathways to offending, they were interviewed regarding the occurrence of any significant life events that may have triggered the chain of events leading to the offence. They were also asked to describe their emotions, thoughts, motivations/goals and goal strategies for each of the nine phases of the Self-Regulation model. These interviews were transcribed and Bickley and

Beech's (2002) checklist as well as Ward and Hudson's (1998a) case examples were used to ascertain the predominant pathway of each individual. Following Hudson and Ward's (2000) recommendations, collateral information from case files was considered where available.

Two independent and self-trained researchers (the author and the author's primary supervisor) allocated each individual to a pathway. In order to minimise errors in classification, these researchers, as well as a third independent researcher (the author's associate supervisor), were required to familiarise themselves with the following materials: Ward and Hudson's (1998a) article on the Self-Regulation model; Ward and Hudson's (1998a) case examples; and Bickley and Beech's (2002) pathway checklist. Hence, the independent raters were self-trained in the Self-Regulation model and the classification system used to allocate offenders to a pathway. However, these researchers met initially on a number of occasions to discuss and clarify details of the case examples and pathway checklist. Where there was a disagreement in classification, the third independent and self-trained researcher made the final decision as to the appropriate classification.

The inter-rater reliability for Approach-Avoidant-goal and Active-Passive-strategy pathway classifications was calculated using Cohen's (1960) kappa. There was a 91% agreement rating for both the Approach-Avoidant and Active-Passive classifications, which equated to a kappa coefficient of 0.75. A kappa of 0.75 is indicative of substantial agreement according to Cohen's (1960) scale.

### *5.3.5 Design*

Due to the small numbers of participants in the Avoidant ( $n = 3$ ) and Active ( $n = 2$ ) pathways to offending, data for Approach-Avoidant and Active-Passive pathways were analysed separately. Analyses 1 and 2 utilised a  $[2] \times (3) \times (5)$



mixed factorial design with two repeated measures. For Analysis 1, the between subjects factor was goal (Approach, Avoidant). For Analysis 2, the between subjects factor was strategy (Active, Passive). For both analyses, the within subjects factors were script type (Neutral, Consensual, CSA) and script stage (Scene, Approach, Incident, Consequence, Resolution), with counterbalancing of script order. The dependent variables for both analyses were psychophysiological response (HR, Resp, SC) and VAS scores.

#### *5.3.6 Data Transformation and Scoring*

Consistent with Study One, psychophysiological measures were taken from a 30 second period of each stage of each script and the preceding baseline.

#### *5.3.7 Data Analysis*

As reported in Study One, data were analysed with separate repeated measures ANOVAs with Huynh-Feldt corrections and Fisher's LSD post hoc tests. A significance criterion of 0.05 was adopted for all analyses.

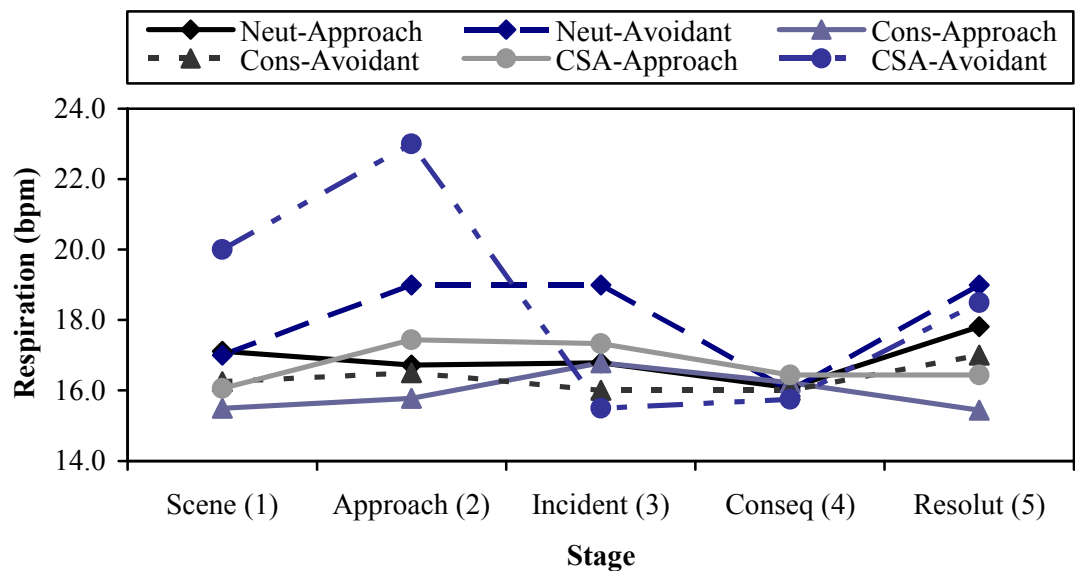
### **5.4 Results**

#### *5.4.1 Analysis One – Approach-Avoidant Goals*

The majority (75%) of the twelve child sex offenders in this sample were allocated to the Approach pathway ( $n = 9$ ) as opposed to the Avoidant pathway ( $n = 3$ ). The majority of analyses were based on 11 offenders, as one Avoidant pathway offender was unable to recall an experience of adult consensual sex. Analysis One script x stage x goal means and standard deviations for all psychophysiological and VAS responses are respectively attached in Appendices L and M.

### 5.4.2 Psychophysiological Responses to Imagery

There were no significant interactions or main effects for heart rate or skin conductance level. However, there was a significant script x stage x goal interaction for Respiration,  $F(8,72) = 2.30$ ,  $MSE = 5.28$ ,  $p < .04$ , as shown in Figure 12.



**Figure 12.** Means for significant script x stage x goal interaction for respiration rate (breaths per minute)

Approach-Avoidant differences in respiration rate for each stage of each script were examined and these results are presented in Table 16. The respiration rate of the Avoidant group was significantly higher than respiration rate of the Approach group only for the Scene stage of the CSA script.

Post hoc analyses were conducted examining differences in respiration rate at each stage for the two goal types. Table 17 presents these results.

**Table 16.** Unpaired t-tests of Approach-Avoidant group differences at each stage of each script for mean respiration rate.

Script	Stage	t	p	Differences
Neutral <i>df</i> = 10	Scene	0.3	ns	
	Approach	1.1	ns	
	Incident	1.1	ns	
	Conseq	0.4	ns	
	Resolut	0.6	ns	
Consensual <i>df</i> = 9	Scene	0.2	ns	
	Approach	0.3	ns	
	Incident	0.2	ns	
	Conseq	0.1	ns	
	Resolut	0.5	ns	
CSA <i>df</i> = 10	Scene	2.5	<.03	Avoidant>Approach
	Approach	2.0	ns	
	Incident	0.1	ns	
	Conseq	0.4	ns	
	Resolut	1.2	ns	

As shown in Table 17, there were no significant differences in respiration rate between scripts at stages one to four for either goal type. However, at stage five for the Approach group, respiration was significantly higher in the Neutral script compared to the Consensual script.

**Table 17.** Script differences in mean respiration rate at each stage for Approach and Avoidant goal offenders.

Group	Stage	F	MSE	p	Fisher	Mean RESP rate differences
Approach <i>df</i> =2,16	Scene	1.5	6.0	ns		
	Approach	2.4	6.3	ns		
	Incident	0.3	0.9	ns		
	Conseq	0.1	0.3	ns		
	Resolut	6.0	12.6	<.02	1.4	N>C
Avoidant <i>df</i> =2,2	Scene	5.1	1.5	ns		
	Approach	1.8	12.2	ns		
	Incident	2.3	3.2	ns		
	Conseq	1.4	3.0	ns		
	Resolut	1.0	2.2	ns		

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault script

Post hoc analyses were conducted to examine differences in respiration rate across the stages of each script for Approach and Avoidant goal types. These results are displayed in Table 18. For the Approach group, respiration rate was significantly higher in the Resolution stage compared to the Approach and Consequence stages of the Neutral script. Respiration rate for the Avoidant group did not differ significantly across the stages of any script.

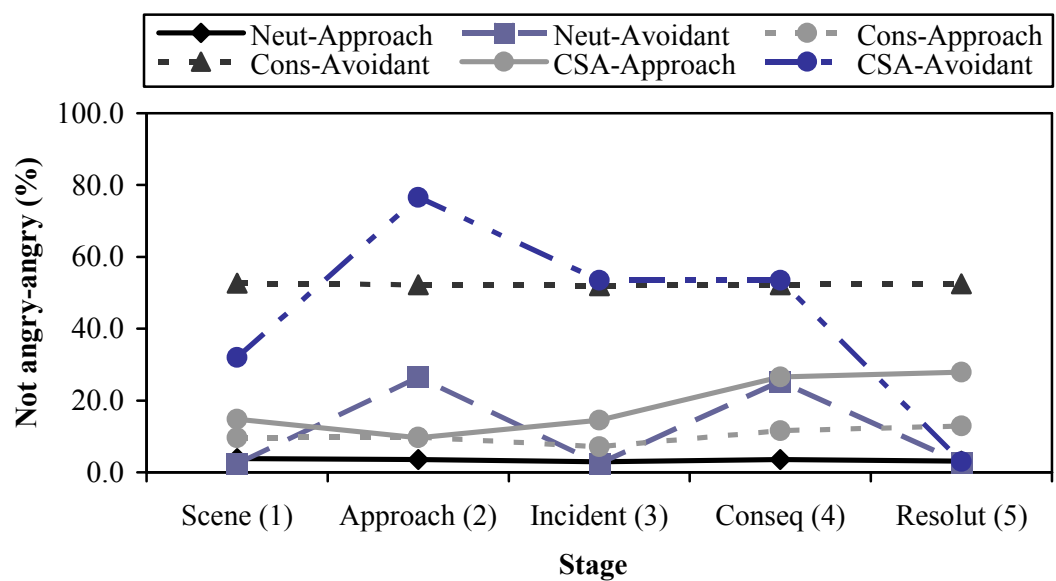
**Table 18.** Comparisons in respiration rate across stages of each script for Approach and Avoidant groups.

Group	Stage	F	MSE	p	Fisher	Mean RESP rate Differences
Approach <i>df</i> =4, 32	Neutral	3.1	3.6	<.04	1.0	5>2,4
	Consens	1.5	2.8	ns		
	CSA	1.5	3.4	ns		
Avoidant <i>df</i> =4, 8	Neutral	1.7	5.8	ns		
	*Consens	0.1	0.3	ns		
	CSA	1.2	15.1	ns		

Notes: \* *df*=4, 4

#### 5.4.3 Psychological Response to Imagery

There was a significant script x stage x goal interaction for the VAS not angry-angry,  $F(8,72) = 3.38$ ,  $MSE = 543.43$ ,  $p < .02$ , which is depicted in Figure 13.



**Figure 13.** Mean percentage ratings for not angry-angry (0-100) script x stage x goal interaction

Post hoc comparisons were performed to examine group differences at each stage of each script and the results for these comparisons are presented in Table 19. Ratings of anger for the Neutral and Consensual script stages did not differ significantly between groups. In response to the CSA script, Avoidant offenders reported significantly higher ratings than Approach offenders in the Approach stage.

**Table 19.** Unpaired t-tests of Approach-Avoidant group differences at each stage of each script for mean percentage ratings of not angry-angry (0-100).

Script	Stage	t	p	Differences
Neutral <i>df</i> = 10	Scene	0.1	ns	
	Approach	1.8	ns	
	Incident	0.3	ns	
	Conseq	1.8	ns	
	Resolut	0.4	ns	
Consensual <i>df</i> = 9	Scene	1.8	ns	
	Approach	1.8	ns	
	Incident	2.2	=0.57	Avoidant>Approach
	Conseq	1.5	ns	
	Resolut	1.4	ns	
CSA <i>df</i> = 10	Scene	0.5	ns	
	Approach	2.6	<.03	Avoidant>Approach
	Incident	1.1	ns	
	Conseq	1.6	ns	
	Resolut	0.2	ns	

Post hoc comparisons of scripts differences in ratings of not angry-angry at each stage for Approach and Avoidant groups were conducted and are presented in Table 20. For both groups, there were no significant script differences in ratings across any of the stages.

**Table 20.** Differences between scripts in mean percentage ratings of not angry-angry (0-100) at each stage for Approach-Avoidant strategy offenders.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Approach <i>df</i> = 2, 16	Scene	0.7	267.0	ns		
	Approach	0.5	113.1	ns		
	Incident	1.3	311.4	ns		
	Conseq	2.0	1227.0	ns		
	Resolut	1.9	1389.5	ns		
Avoidant <i>df</i> = 2, 2	Scene	1.0	1275.3	ns		
	Approach	0.4	1250.4	ns		
	Incident	1.0	1684.5	ns		
	Conseq	0.1	509.5	ns		
	Resolut	1.0	1641.8	ns		

Post hoc comparisons were made of ratings of not angry-angry across stages of each script for Approach and Avoidant groups. These results are presented in Table 21. Ratings of anger did not differ significantly for either group across the stages of the three scripts.

**Table 21.** Comparisons in mean percentage ratings of not angry-angry (0-100) across the stages of each script for Approach and Avoidant groups.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Approach <i>df</i> = 4, 32	Neutral	1.0	1.2	ns		
	Consens	1.3	43.0	ns		
	CSA	1.8	585.7	ns		
Avoidant <i>df</i> = 4, 8	Neutral	1.0	214.3	ns		
	*Consens	1.0	0.2	ns		
	CSA	0.5	895.6	ns		

Notes: *df* = 4, 4

#### 5.4.4 Analysis Two – Active-Passive Strategies

The majority (83%) of the twelve child sex offenders in this sample were allocated to the Passive pathway (*n* = 10) as opposed to the Active pathway (*n* = 2). The majority of analyses were based on 11 offenders, as one of the Passive pathway offenders was unable to recall a consensual sexual experience with another adult. The script x stage x group means and standard deviations for all psychophysiological and VAS responses are respectively attached in Appendices N and O.

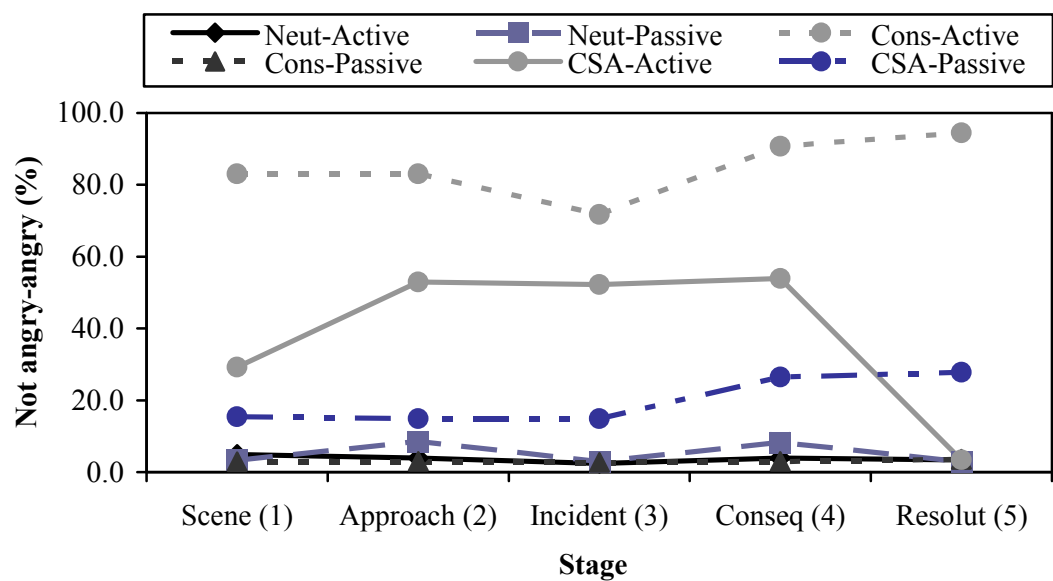
#### 5.4.5 Psychophysiological Responses to Imagery

There were no significant interactions involving effects of strategy for the psychophysiological measures although there was a trend for a script x stage x strategy interaction for Respiration,  $F(8,72) = 2.06$ ,  $MSE = 64.84$ ,  $p = .056$ .



#### 5.4.6 Psychological Response to Imagery

There were significant script x stage x strategy interactions for the VASs not angry-angry,  $F(8,72) = 3.14$ ,  $MSE = 514.80$ ,  $p < .04$ ; not agitated-agitated,  $F(8,72) = 4.95$ ,  $MSE = 1100.59$ ,  $p < .001$ ; not guilty-guilty,  $F(8,72) = 4.63$ ,  $MSE = 1270.38$ ,  $p = .002$ , and not sexually aroused-sexually aroused,  $F(8,72) = 2.24$ ,  $MSE = 843.91$ ,  $p < .04$ . The means for the significant three-way interaction for ratings of anger are displayed in Figure 14.



**Figure 14.** Mean percentage ratings for not angry-angry (0-100) script x stage x strategy interaction

Post hoc comparisons were made for ratings of not angry-angry between the two groups at each stage of each script. These results are presented in Table 22. The two groups did not differ significantly in ratings across the Neutral and CSA script stages. In contrast, for the Consensual script, the Active group had significantly higher ratings at each stage compared to the Passive group.

**Table 22.** Independent samples t-tests of Active-Passive group differences at each stage of each script for mean percentage ratings of not angry-angry (0-100).

<b>Script</b>	<b>Stage</b>	<b>t</b>	<b>P</b>	<b>Differences</b>
Neutral <i>df</i> = 10	Scene	0.3	ns	
	Approach	0.4	ns	
	Incident	0.3	ns	
	Conseq	0.4	ns	
	Resolut	0.0	ns	
Consensual <i>df</i> = 9	Scene	11.6	<.001	Active>Passive
	Approach	11.3	<.001	Active>Passive
	Incident	6.4	<.001	Active>Passive
	Conseq	17.6	<.001	Active>Passive
	Resolut	22.4	<.001	Active>Passive
CSA <i>df</i> = 10	Scene	0.8	ns	
	Approach	1.8	ns	
	Incident	1.7	ns	
	Conseq	0.7	ns	
	Resolut	1.1	ns	

Post hoc comparisons were made of script differences for ratings of not angry-angry at each stage for the Active and Passive groups. These results are presented in Table 23. There was a significant script effect in the Resolution stage for both groups. For the Active group, ratings of anger at the Resolution stage were

significantly higher for the Consensual script compared to the CSA and Neutral scripts. In contrast, for the Passive group, ratings at the Resolution stage were significantly higher for the CSA script relative to the Neutral and Consensual scripts.

**Table 23.** Scripts differences in mean percentage ratings of not angry-angry (0-100) at each stage for Active and Passive groups.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Active <i>df</i> = 2,2	Scene	5.6	3187.0	ns		
	Approa	2.5	3180.7	ns		
	Incident	2.0	2550.3	ns		
	Conseq	2.8	3792.0	ns		
	Resolut	102.2	5520.7	<.01	31.6	C>N,CSA
Passive <i>df</i> = 2,16	Scene	2.1	452.7	ns		
	Approa	2.3	318.4	ns		
	Incident	2.6	432.1	ns		
	Conseq	3.0	1361.3	ns		
	Resolut	4.5	1793.3	<.03	20.0	CSA>N,C

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault script

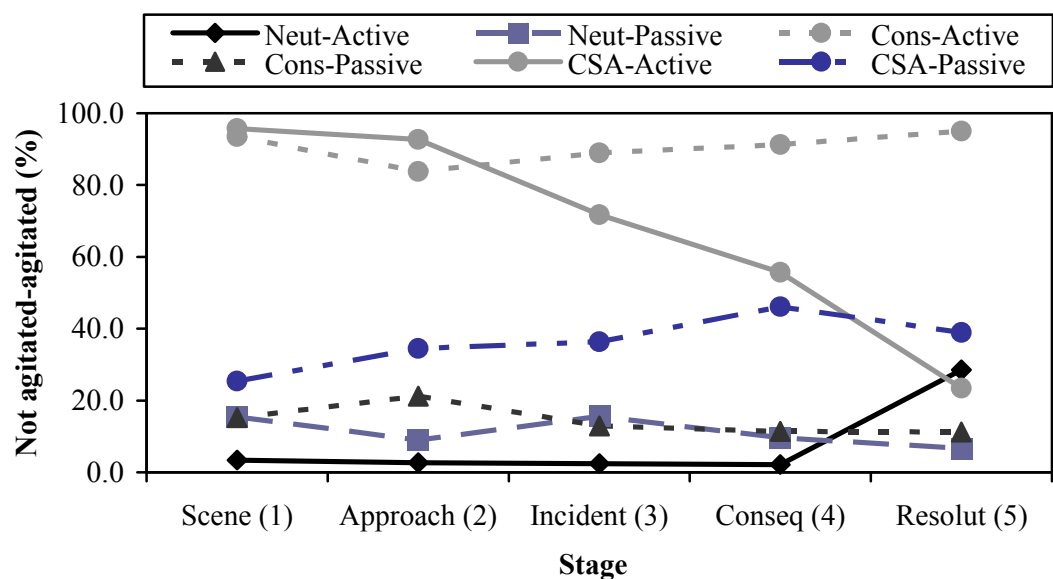
Post hoc comparisons were conducted to compare ratings of not angry-angry across the stages of each script for the Active and Passive groups. The results for these comparisons are displayed in Table 24. There were no significant differences in ratings of anger across script stages for either group.

**Table 24.** Comparisons in mean percentage ratings of not angry-angry (0-100) across the stages of each script for Active and Passive offenders.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Active <i>df</i> =4,4	Neutral	0.9	1.7	ns		
	Consens	1.0	153.0	ns		
	CSA	1.0	975.0	ns		
Passive <i>df</i> =4,36	Neutral	1.1	68.1	ns		
	*Consens	1.7	0.9	ns		
	CSA	2.2	1160.1	ns		

Notes: *df* = 4, 32

The means for the significant three-way interaction for ratings of not agitated-agitated are displayed in Figure 15.



**Figure 15.** Mean percentage ratings for not agitated-agitated (0-100) script x stage x strategy interaction

Post hoc comparisons were conducted examining ratings of agitation between the two groups at each stage of each script and these results are presented in Table 25. For the Neutral script, the Active group had a significantly higher rating than the Passive group at the Resolution. The Active group also had significantly higher ratings when compared with the Passive group for each stage of the Consensual script and also for the Scene of the CSA script.

**Table 25.** Unpaired t-tests of Active-Passive group differences at each stage of each script for mean percentage ratings of not agitated-agitated.

Script	Stage	<i>t</i>	<i>p</i>	Differences
Neutral <i>df</i> = 10	Scene	0.5	ns	
	Approach	0.5	ns	
	Incident	0.6	ns	
	Conseq	0.6	ns	
	Resolut	2.3	<.05	Active>Passive
Consensual <i>df</i> = 9	Scene	6.2	<.002	Active>Passive
	Approach	2.9	<.02	Active>Passive
	Incident	5.0	<.0007	Active>Passive
	Conseq	5.9	<.0002	Active>Passive
	Resolut	6.3	<.0001	Active>Passive
CSA <i>df</i> = 10	Scene	2.3	<.05	Active>Passive
	Approach	2.2	= .053	Active>Passive
	Incident	1.1	ns	
	Conseq	0.2	ns	
	Resolut	0.7	ns	

Post hoc comparisons of scripts differences in ratings of not agitated-agitated at each stage for Active and Passive groups were also made. These results are displayed in Table 26. For the Active group, ratings of agitation were significantly higher in the Consensual and CSA scripts relative to the Neutral script for the Scene and Approach. At the Resolution, Active offenders' ratings were significantly higher for the Consensual script relative to the Neutral and CSA scripts. In contrast, for the Passive group, ratings of agitation were significantly higher for the CSA script compared with the Neutral and Consensual scripts at the Consequence and Resolution stages.

**Table 26.** Scripts differences in mean percentage ratings of not agitated-agitated (0-100) at each stage for Active and Passive offenders.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Active <i>df</i> = 4, 2	Scene	100.6	5538.4	<.01	31.9	C,CSA>N
	Approach	27.2	4914.0	<.04	57.8	C,CSA>N
	Incident	8.8	4191.8	ns		
	Conseq	3.4	4014.5	ns		
	Resolut	23.8	3186.5	<.05	49.8	C>N,CSA
Passive <i>df</i> = 2, 16	Scene	0.6	301.7	ns		
	Approach	1.9	1451.4	ns		
	Incident	3.4	1472.3	ns		
	Conseq	7.7	3805.2	<.005	22.3	CSA>C,N
	Resolut	6.4	2730.6	<.009	20.6	CSA>C, N

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault script

Post hoc comparisons were made for ratings of not agitated-agitated across the stages of each script for both groups. These results are presented in Table 27. There were no significant differences in ratings across the script stages for either group.

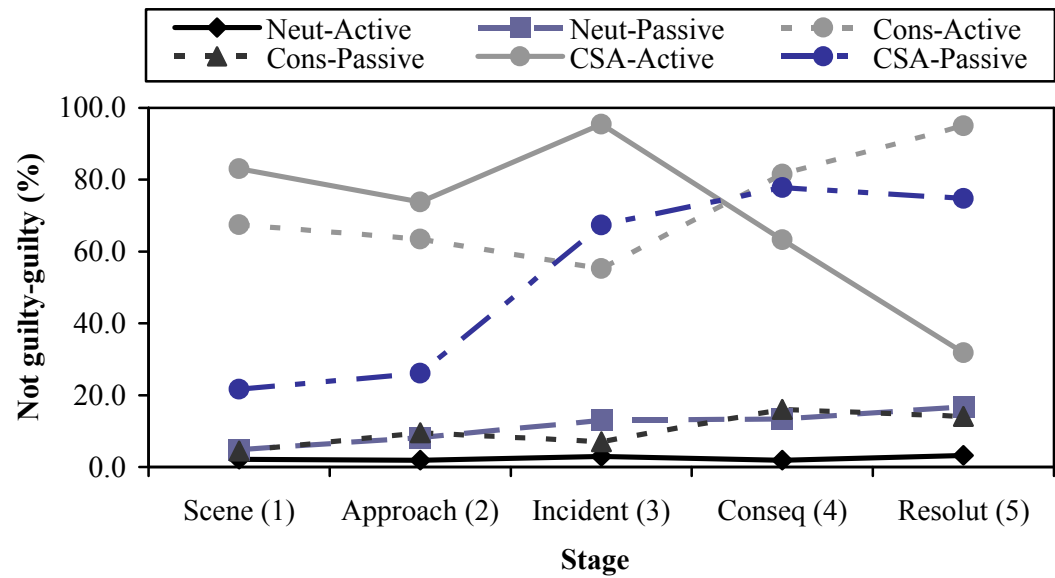
**Table 27.** Comparisons in mean percentage ratings of not agitated-agitated (0-100) across the stages of each script for Active and Passive offenders.

Group	Stage	F	MSE	P	Fisher	Differences in mean % ratings
Active <i>df</i> = 4, 4	Neutral	1.2	265.7	ns		
	Consens	1.0	38.8	ns		
	CSA	3.3	1763.5	ns		
Passive <i>df</i> = 4, 36	Neutral	0.9	128.4	ns		
	*Consens	0.6	153.0	ns		
	CSA	1.3	672.9	ns		

Notes: *df* = 4, 32

The means for the significant three-way interaction for ratings of guilty are displayed in Figure 16.

Post hoc comparisons were conducted examining ratings of guilt between the two groups at each stage of each script. As shown in Table 28, the two groups did not differ significantly in ratings across the Neutral script stages. However, the Active group compared with the Passive group had significantly higher ratings of guilt at each stage of the Consensual script and for the Scene stage of the CSA script.



**Figure 16.** Mean percentage ratings for not guilty-guilty (0-100) script x stage x strategy interaction

**Table 28.** Unpaired t-tests of Active-Passive group differences at each stage of each script for mean percentage ratings of not guilty-guilty (0-100).

Script	Stage	<i>t</i>	<i>p</i>	Differences
Neutral <i>df</i> = 10	Scene	0.5	ns	
	Approach	0.5	ns	
	Incident	0.7	ns	
	Conseq	0.8	ns	
	Resolut	0.9	ns	
Consensual <i>df</i> = 9	Scene	5.1	<.0007	Active>Passive
	Approach	3.0	<.02	Active>Passive
	Incident	2.6	<.03	Active>Passive
	Conseq	3.2	<.02	Active>Passive
	Resolut	5.4	<.0004	Active>Passive



CSA <i>df</i> = 10	Scene	2.4	<.04	Active>Passive
	Approach	1.9	ns	
	Incident	0.9	ns	
	Conseq	0.6	ns	
	Resolut	1.9	ns	

Post hoc comparisons were made of script differences in ratings of not guilty-guilty at each stage for Active and Passive groups. These results are presented in Table 29. The Active group reported significantly higher guilt in the Consensual script compared to the Neutral and CSA scripts at the Resolution stage. In contrast, the Passive group reported significantly higher guilt in the CSA script relative to the other two scripts for the Incident, Consequence and Resolution stages.

**Table 29.** Scripts differences in mean percentage ratings of not guilty-guilty (0-100) at each stage for Active and Passive offenders.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Active <i>df</i> = 2,2	Scene	6.1	3672.8	ns		
	Approach	3.8	3011.8	ns		
	Incident	3.3	4502.1	ns		
	Conseq	4.7	3468.3	ns		
	Resolut	44.5	4410.3	<.03	42.8	C>N,CSA

Passive <i>df</i> = 2,16	Scene	2.0	867.4	ns		
	Approach	2.7	881.7	ns		
	Incident	13.8	9950.4	<.001	26.9	CSA>N,C
	Conseq	25.3	11942.7	<.001	21.7	CSA>N,C
	Resolut	18.9	10587.9	<.0001	23.6	CSA>N,C

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault script

Post hoc comparisons were conducted for ratings of guilt across the stages of each script for both groups. The results of these comparisons are displayed in Table 30.

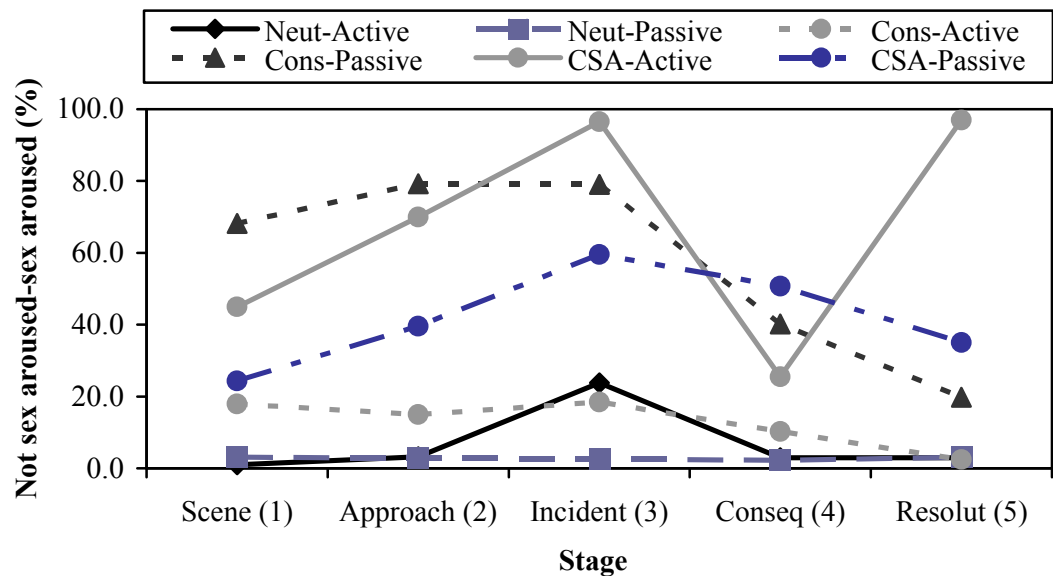
**Table 30.** Comparisons in mean percentage ratings of not guilty-guilty (0-100) across stages of each script for Active and Passive offenders.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Active <i>df</i> = 4,4	Neutral	1.0	0.7	ns		
	Consens	1.0	495.4	ns		
	CSA	3.7	1170.2	ns		
Passive <i>df</i> = 4, 36	Neutral	1.3	181.6	ns		
	*Consens	1.5	207.5	ns		
	CSA	16.2	8690.1	<.0001	21.0	3,4,5>1,2

Notes: *df* = 4, 32

Ratings of guilt did not differ significantly across script stages for the Active group. However, the Passive group reported significantly higher ratings of guilt in the Incident, Consequence and Resolution relative to the Scene and Approach of the CSA script.

The means for the significant three-way interaction for not sexually aroused-sexually aroused are displayed in Figure 17.



**Figure 17.** Mean percentage ratings for not sexually aroused-sexually aroused (0-100) script x stage x strategy interaction

Post hoc comparisons were made for ratings of not sexually aroused-sexually aroused between the two groups at each stage of each script. Table 31 displays these results. The Active group relative to the Passive group reported significantly higher ratings of sexual arousal in the Incident stage of the Neutral script as well as in the Resolution stage of the CSA script. On the other hand, the Passive group had significantly higher ratings of sexual arousal than the Active group during the Approach and Incident stages of the Consensual script.

**Table 31.** Unpaired t-tests of Active-Passive group differences at each stage of each script for mean percentage ratings of not sexually aroused-sexually aroused (0-100).

Script	Stage	<i>t</i>	<i>p</i>	Differences
Neutral <i>df</i> = 10	Scene	0.7	ns	
	Approach	.01	ns	
	Incident	2.4	<.04	Active>Passive
	Conseq	0.3	ns	
	Resolut	0.1	ns	
Consensual <i>df</i> = 9	Scene	1.7	ns	
	Approach	3.8	<.005	Passive>Active
	Incident	2.6	<.03	Passive>Active
	Conseq	0.9	ns	
	Resolut	0.8	ns	
CSA <i>df</i> = 10	Scene	0.4	ns	
	Approach	0.9	ns	
	Incident	1.3	ns	
	Conseq	0.7	ns	
	Resolut	2.3	<.05	Active>Passive

Post hoc comparisons were conducted examining script differences in ratings of not sexually aroused-sexually aroused at each stage for Active and Passive groups. Table 32 presents these results. The Active group reported significantly higher ratings of sexual arousal for the CSA script relative to the other two scripts at the Resolution stage. The Passive group had significantly higher ratings for the

Consensual script compared to the other scripts at the Scene and Approach stages whereas ratings were significantly higher for the CSA and Consensual script relative to the Neutral script at the Incident, Consequence and Resolution stages.

**Table 32.** Scripts differences in mean percentage ratings of not sexually aroused-sexually aroused (0-100) at each stage for Active and Passive groups.

Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Active <i>df</i> = 2,2	Scene	1.0	984.7	ns		
	Approach	18.0	2539.5	= .052	51.1	CSA>C,N
	Incident	7.0	3801.4	ns		
	Conseq	0.6	263.8	ns		
	Resolut	267.2	5922.2	<.004	20.3	CSA>N,C
Passive <i>df</i> = 2,16	Scene	13.1	9884.1	<.004	27.4	C>N,CSA
	Approach	23.7	13097.2	<.0001	23.5	C>N,CSA; CSA>N
	Incident	23.7	14161.8	<.0001	24.4	CSA,C>N
	Conseq	6.6	5836.2	<.008	29.6	CSA,C>N
	Resolut	4.0	2281.8	<.04	23.9	CSA>N

Notes: N = Neutral script  
C = Consensual script  
CSA = Child sexual assault scrip

Post hoc comparisons were made for ratings of not sexually aroused-sexually aroused across the stages of each script for both groups and these results are displayed in Table 33. The Active group did not report significant differences in ratings across the script stages. However, the Passive group reported significantly

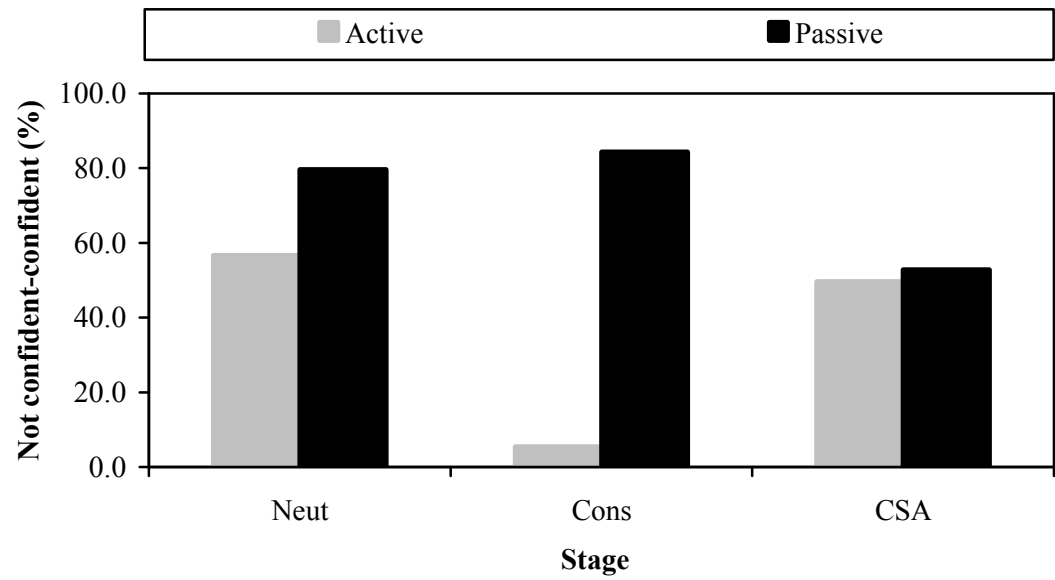
higher ratings in the Consensual script for the first three stages relative to the last two stages and for the CSA script, ratings were significantly higher in the Incident relative to the Scene and Resolution stages.

**Table 33.** Comparisons in mean percentage ratings of not sexually aroused-sexually aroused (0-100) across stages of each script for Active and Passive offenders.

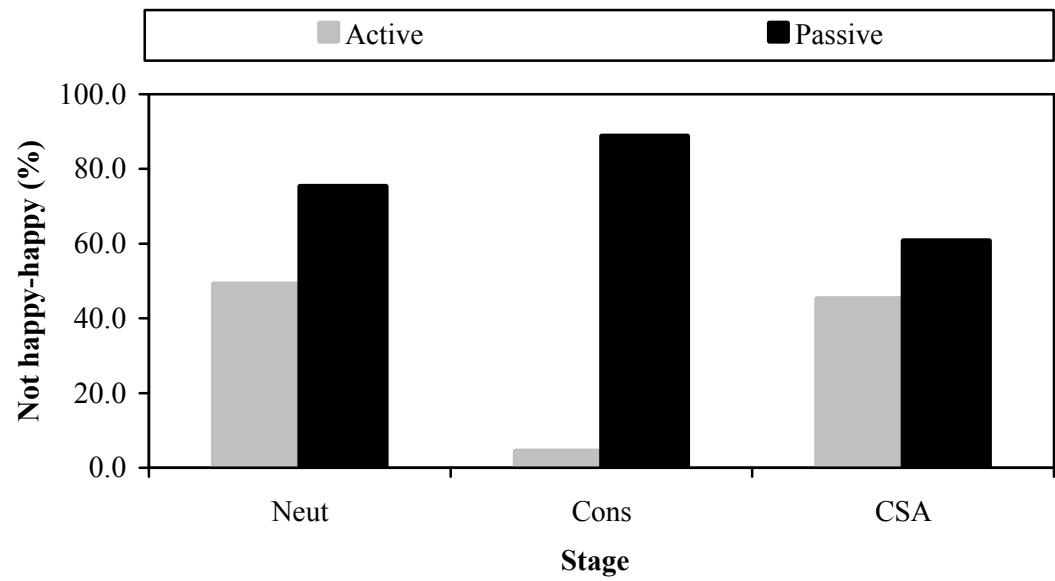
Group	Stage	F	MSE	p	Fisher	Differences in mean % ratings
Active <i>df</i> = 4,4	Neutral	1.0	181.2	ns		
	Consens	0.5	88.5	ns		
	CSA	1.6	1992.7	ns		
Passive <i>df</i> = 4, 36	Neutral	0.7	1.2	ns		
	*Consens	8.0	6219.9	<.0001	26.8	1,2,3>4,5
	CSA	2.7	1639.3	<.05	22.4	3>1,5

Notes: \**df* = 4, 32

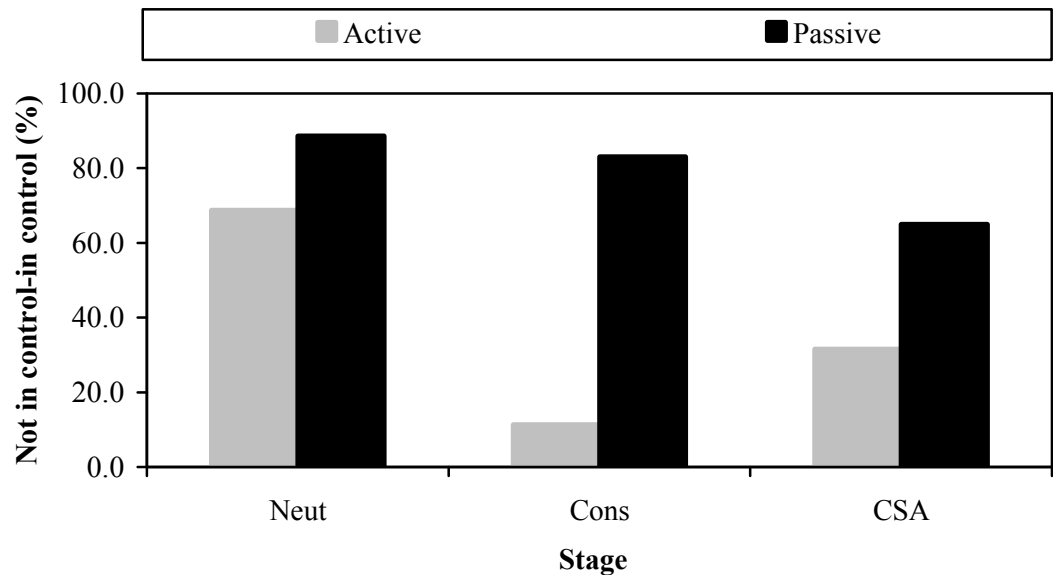
There were significant script x strategy interactions for ratings of not confident-confident,  $F(2,18) = 5.50$ ,  $MSE = 12633.51$ ,  $p < .02$ , not happy-happy,  $F(2,18) = 5.99$ ,  $MSE = 11223.52$ ,  $p < .02$ , not in control-in control,  $F(2,18) = 5.32$ ,  $MSE = 5863.68$ ,  $p < .02$ , and not avoiding sex-avoiding sex,  $F(2,18) = 3.82$ ,  $MSE = 14082.17$ ,  $p < .05$ . Figures 18, 19 and 20 respectively illustrate the two-way interaction for ratings of confidence, happiness and control. The means and standard deviations for these significant two-way interactions are presented in Appendix O.



**Figure 18.** Mean percentage ratings for not confident-confident (0-100) script x strategy interaction



**Figure 19.** Mean percentage ratings for not happy-happy (0-100) script x strategy interaction



**Figure 20.** Mean percentage ratings for not in control-in control (0-100) script x strategy interaction

The pattern of results was noticeably similar for ratings of confidence, happiness and control. Unpaired t-tests were conducted to examine group differences in ratings for each script. As shown in Table 34, there were no significant difference between groups in ratings of confidence, happiness and control for the Neutral and CSA scripts. However, for the Consensual script, Passive strategy offenders reported significantly higher ratings of confidence, happiness and control than Active strategy offenders.

One-way ANOVA post hoc tests were performed to examine differences between scripts for each group. As demonstrated in Table 35, there were no significant differences in ratings of confidence, happiness or control between scripts for the Active group. However, for the Passive group, ratings of confidence and control were significantly higher for Neutral and Consensual scripts compared to the CSA script. In addition, Passive strategy offenders' ratings of happiness were significantly higher in the consensual script compared to the CSA script.



**Table 34.** Unpaired t-tests of differences between Active and Passive offenders in mean percentage ratings of confidence, happiness and control (0-100) for each script.

VAS	Group	<i>t</i>	<i>p</i>	Differences
Confidence <i>df</i> = 10	Neutral	1.2	ns	
	*Consens	6.9	<.0001	Passive>Active
	CSA	0.1	ns	
Happiness <i>df</i> = 10	Neutral	1.7	ns	
	*Consens	9.8	<.0001	Passive>Active
	CSA	0.8	ns	
Control <i>df</i> = 10	Neutral	1.6	ns	
	*Consens	4.5	<.002	Passive>Active
	CSA	1.2	ns	

Notes: *df* = 9

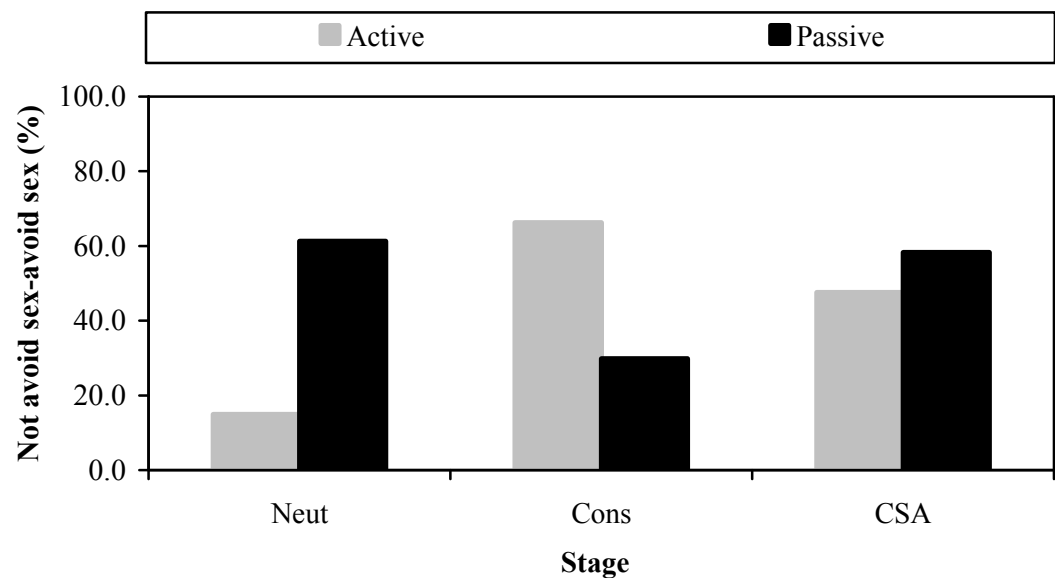
**Table 35.** Comparisons of differences between scripts in mean percentage ratings of confidence, happiness and control (0-100) for Active and Passive Offenders.

VAS	Group	F	MSE	<i>p</i>	Fisher	Differences
Confidence	<sup>1</sup> Active	4.1	1543.3	ns		
	<sup>2</sup> Passive	5.5	2598.1	<.02	21.7	C,N>CSA
Happiness	<sup>1</sup> Active	5.3	1226.0	ns		
	<sup>2</sup> Passive	4.5	1766.3	<.03	19.8	C>CSA

Control	<sup>1</sup> Active	8.1	1690.4	ns		
	<sup>2</sup> Passive	6.2	1367.8	<.02	14.9	C,N>CSA

Notes: <sup>1</sup>  $df = 2,2$   
<sup>2</sup>  $df = 2,16$

As illustrated by Figure 21, the pattern of results observed for ratings of avoiding sex was noticeably different to the pattern of results obtained for the previously described two-way interactions. In relation to group differences, unpaired t-tests indicated there was no significant difference in ratings between groups for the Consensual,  $t(9)=2.0, p >.05$  and CSA scripts  $t(10) = 0.5, p >.05$ . However, the Passive group reported significantly higher ratings of avoiding sex than the Active group for the Neutral script,  $t(10) = 2.2, p <.05$ .



**Figure 21.** Mean percentage ratings for not avoiding sex-avoiding sex (0-100) script x strategy interaction

With regard to differences between scripts for each group, a follow-up one way ANOVA indicated there were no significant differences in ratings of avoiding sex between scripts for the Active group,  $F(2,2) = 1.3$ ,  $MSE = 1343.4$ ,  $p > .05$ . However, there were significant differences in ratings of avoiding sex between scripts for the Passive group,  $F(2,16) = 3.9$ ,  $MSE = 2718.9$ ,  $p < .05$ . Fishers PLSD (26.4) indicated that ratings were significantly higher for the Neutral and CSA scripts compared to the Consensual script.

## 5.5 Discussion

Study Two tested a number of the Self-Regulation model's (Ward & Hudson, 1998a, 2000a) assumptions inherent in the descriptions of Approach-Avoidant goal and Active-Passive strategy pathways to offending. In particular, the present research focused on examining the processes predicted to take place during phases five (high risk situation entered) to nine (future resolution) of the Self-Regulation model. However, caution should be exercised in interpreting the results from Analyses One and Two given the sample size was small ( $N=12$ ) and, hence, may not be representative of larger samples of child sex offenders.

With this limitation in mind, Analyses One and Two produced descriptions of offence pathways that conflicted with the Self-Regulation model's offence pathway descriptions. Analysis One indicated that the present sample of Approach and Avoidant offenders demonstrated a relatively homogenous set of responses to the CSA script. The exception was that Avoidant offenders in the present sample demonstrated elevated anger and respiration rate in the initial stages of the CSA script when compared with Approach offenders. Therefore, it appears that once offending was imminent, the present sample of offenders experienced similar

affective, physiological, as indexed by respiration rate, and motivational states, regardless of initial offence goals.

In contrast, Analysis Two found that the present sample of Active and Passive strategy offenders demonstrated relatively distinct response patterns to the scripts. The Active and Passive offenders in Analysis Two differed markedly in the pattern of negative emotional reactions as well as sexual arousal responses to the scripts. The pattern of results was the opposite of that expected such that Active offenders demonstrated a deviant response to the Consensual script when compared with the CSA script whereas Passive offenders demonstrated a non-deviant response. The offences committed by Active strategy offenders appeared to be strongly motivated by deviant sexual arousal and a desire to avoid negative affective states. In contrast, Passive offenders appeared to act on opportunity and experienced negative evaluations a result of committing sex offences.

Before proceeding to explore the observed patterns of response for the different pathways to offending in more depth, it is necessary to firstly consider the limitations in scope of the presently employed methodology. A guided imagery methodology was selected to test the Self-Regulation model's assumptions due to the methodology's adeptness at capturing psychological response patterns unfolding during complex behaviours (Haines et al., 1995). The present methodology is most suitably applied in examining discrete events unfolding over a relatively short period of time.

Thus, it was noted that a guided imagery methodology could not be employed to test assumptions regarding the Self-Regulation model's description of processes occurring in the days, weeks or months prior to the commission of the offence. As illustrated in Figure 11, the CSA script employed in the present study was able to capture the processes progressing from the encountering of a high risk situation

(phase five) to post-offence future resolutions (phase nine). The implication of this is that the present study was unable to test the full scope of the Self-Regulation model. Notwithstanding these limitations, the guided imagery methodology was able to provide a more detailed description of the processes occurring during the immediate moments surrounding the commission of the offence.

In addition to this limitation of scope, caution should be exercised in interpreting the results pertaining to sexual arousal and deviant sexual arousal, as both self-report and psychophysiological responses were taken as proxy measures of sexual arousal. It has been argued that penile plethysmography, otherwise referred to as phallometry, is the most direct and specific measure of sexual arousal in males (Freund, 1977). However, as it was not possible to employ phallometric measures in the current research for reasons stated elsewhere, self-report and psychophysiological measures of sexual arousal were taken. The validity of such measures as proxy measures of sexual arousal was demonstrated in a series of investigations undertaken by Masters and Johnson (1966) in which psychophysiological responses, such as heart rate and respiration, reliably changed as a function of various phases of the human sexual response cycle. Nonetheless, the assumption is not made that the present results would be reproduced if phallometric measures of sexual arousal were taken in place of self-report and psychophysiological responses.

Moreover, as noted earlier, the results from Analyses One and Two were based on the same small sample of child sex offenders (N=12). Therefore, it is questionable as to whether this sample of child sex offenders is representative of larger samples of child sex offenders. With this limitation in mind, caution should be exercised in interpreting the results from Analyses One and Two, as it is inappropriate to assume that the present results can be generalised to other samples of child sex offenders.

With that said, the aim of analysis one was to use a guided imagery methodology to test a number of hypotheses regarding patterns of response expected from Approach and Avoidant goal pathway offenders to the CSA and Consensual scripts. It was noted that a key assumption of the Self-Regulation model is that goals are dynamic in nature (Ward & Hudson, 1998a, 2000a). Accordingly, the Self-Regulation model proposes that although Avoidant offenders will initially adopt inhibitory goals, they will progress to endorsing acquisitional goals during the Lapse and Relapse phases. The results of the current study indicated there were no significant differences between groups in the endorsement of inhibitory goals during the high risk situation or any later phase of the offence process. The implication of these findings is that offenders characterised by acquisitional and inhibitory goals in the present sample appear to possess similar motivations once they enter a high risk situation.

The present findings do not conflict with the notion of heterogeneity in offence processes, but rather imply uniformity in immediate precursor motivations for the current sample of child sex offenders. As previously discussed, the CSA script provided a more fine grained analysis of immediate offence precursors than was provided by the Self-Regulation model. Further research would be required to establish support for the heterogeneity of motivations in more distal offence processes. However, such an investigation could not be pursued using a guided imagery investigation given the fine grained and specific focus of the imagery scripts employed.

It has been previously noted that the Self-Regulation model assumes that the two major types of offence goals are associated with different affective states (Ward & Hudson, 1998a, 2000a). The present results offered mixed support for the hypotheses regarding differences between Approach and Avoidant offenders in

negative emotional and psychophysiological reactions to the CSA script. In support of Ward and Hudson's Self-Regulation model descriptions, Avoidant offenders reported significantly higher anger than Approach offenders in the present study during the Approach stage of the CSA script. In addition, respiration rate was significantly higher for the Avoidant group relative to the Approach group at the Scene of the CSA script. The greater anger and respiration rate experienced by Avoidant offenders in the earlier stages of the CSA script suggests that these offenders were more concerned with failure and possibly perceived that they were going to fail in achieving their goal of avoidance. Indeed, Self-Regulation theory proposes that avoidance goals entail a focus on indicators of failure and, as such, they are associated with negative evaluations and affect (Carver et al., 2000; Cochran & Tesser, 1996). Although these results are consistent with the results expected based on the Self-Regulation model descriptions of these offenders, they conflict with the present findings indicating no difference between groups in endorsement of avoidance goals.

In addition to the between-group differences in the present study, Approach offenders unexpectedly demonstrated relatively elevated respiration rate to the latter stages of the Neutral script when compared with the Consensual script. The latter stage of the Neutral script typically depicted offenders waiting in their prison cell for the prison guards to release them into the general yard. In comparison, the Consensual scripts depicted less hectic settings and the latter stages typically depicted a calming experience such as resting. Thus, this difference in respiration rate likely reflects the dissimilar settings surrounding the two events. Even so, this difference in respiration rate was relatively minor and would not be considered clinically important.

The enduring patterns of results converge in pointing towards the relative homogeneity in immediate offence processes of Approach and Avoidant offenders in the present sample. Besides the abovementioned exceptions, there were minimal between-group differences in positive and negative affect or psychophysiological responses during the CSA script. This latter finding was not predicted given that the majority of findings in the literature report that the Approach pathway is associated with chiefly positive affect whereas the Avoidant pathway is associated with largely negative affect (e.g., Hudson et al., 1999; Proulx et al., 1997, 1999; Ward, Loudon et al., 1995).

However, it is likely that the present method of examining affective responses (i.e., VAS ratings) would be more reliable than the methods used by Ward and colleagues. Ward and colleagues asked offenders during structured interviews to recall the types of emotions experienced and, as such, the recall of emotions could potentially be influenced by experimenter expectations and prompts (e.g., Hudson et al., 1999; Polaschek et al., 2001; Ward, Loudon et al., 1995; Ward & Hudson, 1998a). Visual analogue scales are less subject to experimenter bias and allow for measurement of not only the predominance of various emotions but also their magnitude. Therefore, the present method of assessing affect is considered to be comparatively more reliable. Nonetheless, the present study is based on a small and possibly unrepresentative sample of child sex offenders and, hence, further research employing a considerably larger sample of child sex offenders would be required to explore this issue further.

It may also be plausible that generalised descriptions of Approach and Avoidant pathways are overly simplistic. The Self-Regulation model clearly stipulates that offence processes are dynamic and that the offence processes occurring during the Lapse and Relapse phases are relatively homogeneous (Ward &



Hudson, 1998a, 2000a). The present findings are consistent with the Self-Regulation model's descriptions in suggesting that once offending is imminent, the present sample of child sex offenders experienced similar affective, physiological, as indexed by respiration rate, and motivation states, regardless of initial offence goals.

The present results may also intuitively be explained by the relatively contracted time frame adopted in the present study in examining offence processes. However, this explanation is less able to account for the present results, which are not consistent with the Self-Regulation model's descriptions of offence processes occurring during the evaluation and resolution phases. Whereas the Self-Regulation model implies that Approach offenders will experience predominantly positive effective states during these stages when compared with Avoidant offenders, the present sample of offenders was homogeneous in the patterns of response during the latter phases of the offence. Despite the present study employing a more specific time frame in examining offence processes, differences in immediate post-offence evaluations were expected. The similarity in affective states of offenders in the latter stages of the CSA script is consistent with the presently observed homogeneity in immediate offence motivations. Thus, the Self-Regulation model does not apply well in describing the immediate offence processes of the current sample of Approach and Avoidant offenders.

Besides considering the contracted time frame employed in the present study, another plausible explanation for the unexpected homogeneity of offence processes is the unique characteristics of the present sample of child sex offenders. There were a disproportionately high number of Approach goal offenders and the present sample of child sex offenders was comparatively small. These factors combined suggest that the present findings are relatively less reliable than those of previous studies.

However, Ward and colleagues (Ward & Hudson, 1998a) as well independent

researchers (i.e., Bickley & Beech, 2002, 2003), found that Approach offenders were significantly more frequent than were Avoidant offenders. Ward and Hudson (1998a) provided data indicating that 76% of their sample of child sex offenders was classified as Approach goal offenders. This figure is remarkable similar to the figure of 75% obtained in the present sample, which lessens the possibility that the present sample were not representative of the samples employed in previous studies. Furthermore, the inter-rater reliability for classifying the present sample of offenders as either Approach or Avoidant was good and, thus, classification errors are unlikely. Nonetheless, the present findings have been drawn from a small sample of child sex offenders who may not be representative of larger samples of child sex offenders and, hence, further research is required to adequately explore the issue of homogeneity in immediate offense processes.

The aim of the second analysis was to examine predictions and assumptions emanating from the Self-Regulation model (Ward & Hudson, 1998a, 2000a) with regard to Active-Passive strategy offenders. Active and Passive offenders were compared on their psychophysiological and psychological responses to the CSA, Consensual and Neutral scripts. As noted previously, there has been relatively little empirical research (e.g., Bickley & Beech, 2002) pertaining to differences between Active and Passive offenders in the processes occurring during offending. It was also stated in preceding sections that it is plausible that the significance of the adoption of active and passive strategies is in their interacting effects with approach and avoidant goals. Consequently, the present analyses of Active and Passive offenders were largely exploratory in nature.

The present results offered mixed support for the hypothesised differences between Active and Passive offenders. There were no significant interactions involving strategy for the psychophysiological responses, which indicates that the

present sample of Active and Passive strategy offenders were relatively homogeneous in levels of arousal in response to the three scripts. Unexpectedly, there were no between-group differences in ratings of planning sex during the CSA script. However, as noted in the preceding sections, the present investigation of offence processes was relatively narrow in scope. Furthermore, it has been proposed that strategies employed will become more explicit once offenders encounter a high risk situation (Ward & Hudson, 2000b). The results are consistent with the speculation that immediate offence processes are characterised by explicit and overt planning, which may, in turn, account for the homogeneity in psychophysiological arousal at least in response to the CSA script.

Active and Passive offenders shared some similarities in affective responses to the CSA script. Conflicting with the hypothesis for this analysis, the two groups reported equally moderate feelings of confidence, control and happiness in response to the CSA script. Therefore, the pattern of results obtained indicated that both offender groups were in relative control of themselves and their environment. This interpretation is inconsistent with the view that Passive strategy offenders will exhibit deficits in self-regulation and self-awareness (Hudson & Ward, 2000). However, independent studies have failed to find differences between Active and Passive strategy offenders in impulsivity and aggressiveness (Bickley & Beech, 2002). In explaining these unexpected results, it was proposed that offenders' self-regulation strategies may be situation specific. Indeed, it is plausible that offenders may become more self-aware and gain control of their actions in order to achieve their goal. This interpretation is also consistent with the proposal that strategies employed will become more explicit once offenders encounter a high risk situation (Ward & Hudson, 2000b). However, given the limited sample on which the present

results are based, further research employing larger and more representative samples of child sex offenders would be required to clarify this issue.

Nonetheless, the between-script comparisons of ratings of control, confidence and happiness revealed a number of interesting differences between the present samples of Active and Passive offenders. Active offenders reported equally moderate levels of these affective states in response to the CSA and Consensual scripts. On the other hand, Passive offenders reported feeling greater confidence, control and happiness during the Consensual script relative to the CSA script. Thus, unlike Active offenders, Passive-strategy offenders in the present study appeared to experience greater control and confidence in their general interpersonal lives than during offending. This explanation conflicts with Bickley and Beech's (2002) suggestion that whereas Passive offenders may generally exhibit deficits in self-regulation, they are able to gain control over their actions during offending in order to achieve their goal. In contrast, the present results suggest that the deficits in control exhibited by the present sample of Passive offenders are specific to their offending.

Despite the similarities in affective responses to the CSA script, there were some informative differences in affective states preceding the phases involving the lapse and relapse. Most notably, for the Active strategy offenders, the Scene of the CSA script was marked by negative emotions such as agitation and guilt. These findings suggest one of two possibilities. The first is that these Active offenders were actively processing their actions and the events to follow and, hence, were contemplating the immorality of their behaviour. However, as discussed in the preceding section, the two groups equally reported feelings of control and confidence. Thus, a more plausible explanation is that the majority of Active

offenders in the present study were motivated to commit offences in order to escape from negative affective states.

Despite the appeal of this latter explanation, these Active offenders did not report significant decreases in negative affect or increases in positive affect across the stages of the CSA script. Having said this, whereas Passive offenders reported increased anger, guilt and agitation in the latter stages of the CSA script, Active offenders did not demonstrate any negative evaluation or resolution.

Regardless of the motivational properties of the initially elevated negative affect, it appears that Active pathways to offending, at least in the present sample of child sex offenders, are primarily and initially associated with negative affective states. These findings were unexpected given that previous research has predominantly associated explicit pathways with positive affect (e.g., Hudson et al., 1999). Having said this, Proulx and colleagues (1997, 1999) independently found that negative affect pathways were associated with planning of offences. The major defining difference between the studies of Hudson and colleagues and Proulx and colleagues was the number of pathways to offending identified. Hudson and colleagues identified three major pathways and multiple minor pathways. In contrast, Proulx and colleagues used a cluster analysis to derive two major pathways. Thus, it seems that when investigating Active and Passive pathways as a dichotomy, the two types may be distinguished on the basis of negative affect. However, when the interacting effects of strategy and motivation are combined, these differences in affect are absent. This reasoning suggests it may be overly simplistic to view pathways to offending as dichotomous types. However, given the small sample on which the present results were based, it may prove fruitful for future research to investigate this issue in detail using larger representative samples of child sex offenders.

Despite this reasoning, it is possible that differences between Active and Passive offenders may be meaningful and enlightening in understanding deficits they may possess in general interpersonal relationships. The present results demonstrated considerable diversity in the responses of Active and Passive offenders to the Consensual script. In response to the Consensual script, Active offenders demonstrated considerably higher negative affect than Passive offenders who, in turn, reported higher positive emotions. The Active offenders reported higher levels of anger, guilt and agitation when compared with Passive offenders. It was evident that for Active offenders in the present study, adult consensual experiences were associated with considerably greater negative affect and lower sexual arousal when compared with sex offending. These Active offenders demonstrated marked deficits in general interpersonal relationships, which may hold some explanatory weight in understanding their motives for offending. Nonetheless, further speculation on this issue is unwarranted, as this issue was not specifically addressed and the present sample of child sex offenders was small.

On a descriptive note, Passive offenders in the present study appeared to enjoy greater functionality in interpersonal relationships, as adult consensual sex was associated with more positive affective states than was sex offending. Thus, consistent with the suggestion made in the preceding discussion, the deficits of the present sample of passive offenders appear to be specific to offending.

Consistent with the view that the deficits of Passive offenders may be specific to offending, but inconsistent with the present hypotheses, Active offenders presented as being a more sexually deviant group in the present study. A comparison of Active and Passive strategy offenders' sexual arousal responses to the Consensual and CSA scripts confirmed that Active offenders demonstrate a sexually deviant pattern of response to the Consensual script. Subsequent chapters will determine the

implications of these differences in offence processes for assessing the treatment need and risk of recidivism of the present sample of offenders. However, these results should be interpreted with caution given that self-report and psychophysiological measures were taken in place of phallometric measurement, which is a more direct measure of sexual arousal. It cannot immediately be assumed that these results would be replicated by employing penile plethysmography as a measure of sexual arousal.

Therefore, as other researchers have found (e.g., Bickley & Beech, 2002), the present findings regarding the Active-Passive distinction are inconclusive. Although a number of hypotheses were disconfirmed, the comparisons between Active and Passive offenders yielded a number of unexpected results. The results did not fit with Ward and Hudson's (1998a) proposal that Passive strategy offenders will exhibit deficits in self-regulation and self-awareness. The Passive offenders in the present sample appeared to be just as aware and in control of the likely effects of their actions as were the Active offenders during the immediate moments surrounding the commission of the offence. These results suggest that the deficits exhibited by Passive offenders in the present sample may be specific to their offending. Indeed, Passive offenders' ratings of control in response to the CSA script were lower than they were for the Consensual and Neutral scripts. This latter result suggests that although the present sample of Passive offenders did not experience deficits in Control in other aspects of their lives, they felt relatively less in control at the time of the commission of the offence.

Furthermore, the negative emotions reported by Passive offenders in the aftermath of the offence suggest that they evaluate their behaviour or its consequences negatively. This implies that the present sample of Passive offenders does, to some extent, possess self-regulation deficiencies, as these offenders do not

possess the ability to alter their behaviour despite the resultant negative effects.

However, given the small and unrepresentative nature of the present sample of child sex offenders, it is not possible to either refute or support the Self-Regulation model description of self-regulation deficits in Passive offenders (Ward & Hudson, 1998a, 2000a).

The results of the present study have offered some unexpected but informative results with regard to the likely recidivism risk of the offenders in the present sample and these results require further investigation. The pattern of results obtained was the opposite of that expected such that Active offenders demonstrated a deviant response to the Consensual script when compared with the CSA script whereas Passive offenders demonstrated a non-deviant response. Although only proxy measures of sexual arousal were taken, the offences committed by these Active strategy offenders appeared to be strongly motivated by deviant sexual arousal and a desire to avoid negative affective states. In contrast, the present sample of Passive offenders appeared to largely act on opportunity and experienced negative evaluations a result of committing sex offences.

Research has indicated that sexually deviant interest in children is associated with an increased risk for sexual recidivism (Hanson & Bussière, 1996, 1998). Therefore, the present results suggest that the present sample of Active pathway offenders are at a greater risk for sexual re-offending than are the Passive pathway offenders. However, these results should be viewed with caution given that only proxy measures of sexual arousal were taken. Although research has demonstrated that psychophysiological responses are reliable proxy measures for sexual arousal (Masters & Johnson, 1966), the employment of penile plethysmography in the present study would have provided more definitive conclusions regarding the sexual deviance of various pathway offenders. Differences between the present sample of



Active and Passive pathway offenders in risk for sexual recidivism will be analysed and discussed in detail in Chapter Eight.

A notable limitation in this study is the small numbers of participants, which is partly an artefact of the time-consuming nature of the methodology used. However, this is a criticism commonly faced by the researchers in this field who wish to develop offence process models. The methodology is particularly time consuming and labour intensive. Nonetheless, the guided imagery methodology used, and indeed the grounded theory methodology used by Ward and colleagues (e.g., Hudson et al., 1999; Polaschek et al., 2001; Ward, Loudon et al., 1995), provide a rich description of the processes occurring and developing during the course of an event. Further research involving larger numbers of participants have been incorporated into Ward and colleague's offence process models and, indeed, the emerging profiles of the offenders in the present study can be built on and moderated where necessary to accommodate new data.

A related limitation is the particularly small numbers of offenders in the Avoidant and Active pathways. Consistent with previous studies (e.g., Bickley & Beech, 2002, 2003; Ward & Hudson, 1998a), the majority of offenders in this sample were Approach offenders. However, in contrast to previous research suggesting Active offenders are more frequent than Passive offenders (e.g., Bickley & Beech, 2002, 2003; Ward & Hudson, 1998a); the present sample was comprised of predominantly Passive pathway offenders (83%). Therefore, it is quite possible the Active-strategy offenders in this sample are not representative of the Active-strategy offenders described in previous research.

In understanding the basis of these departures from previous research, there were some noteworthy features inherent in the present sample of child sex offenders. Most notably, the present sample was comprised of untreated and predominantly

incarcerated offenders who had committed offences predominantly against extra-familial victims. These characteristics are comparatively similar to those comprising samples of sex offenders employed in deriving offence process models, although the victim-offender relationships in these latter samples were not specified (Hudson et al., 1999; Ward Loudon et al., 1995).

However, there were noticeable differences in the sample demographics of other independent studies that have provided support for offence process models (Bickley & Beech, 2002, 2003; Proulx, 1997, 1999; Webster, 2005). Most notably, the samples for both Bickley and Beech and Webster were comprised of offenders who had received treatment for their behaviour. Furthermore, previous studies investigating offence process models have employed culturally diverse samples from Canada (Proulx et al.), the UK (Bickley & Beech) and New Zealand (Hudson et al., 1999; Ward Loudon et al., 1995). However, the present sample is the first sample comprised of Australian offenders.

Further to this, the present sample was recruited predominantly from H.M. Risdon Prison, which, during the initial stages of data collection, did not have any intervention programs in place for sex offenders. The sample of child sex offenders recruited for the present study had not received any treatment for their behaviour at the time of their participation in this study. A further possibility is that the present sample of offenders may be more deviant or present with greater clinical symptomatology. Independent studies have excluded offenders with high levels of clinical symptomatology (Bickley & Beech, 2002, 2003; Proulx et al., 1997, 1999). Offenders in the present sample were not screened for clinical disorders and, thus, it is plausible that the present sample may represent a more deviant population. This possibility will be further explored in subsequent chapters.

Despite these limitations, a number of possibilities and platforms for further research have emerged from the present results. In particular, further possibilities not yet explored by the Self-Regulation model of the offence process have emerged. Through adopting a guided imagery methodology to examine both the legal and illegal sexual experiences of child sex offenders, it became apparent that although the majority of offenders in the present study demonstrated a normal response to legally consensual sexual activity, Active offenders exhibited a deviant response to such experiences. This pattern of response has implication for both the treatment and risk assessment of these offenders. Chapter Six will explore the treatment implications of the Self-Regulation model whereas Chapters Seven and Eight will explore risk assessment procedures and application of the Self-Regulation model in risk assessment.

## CHAPTER SIX: PERI-OFFENCE OUTCOMES: TREATMENT IMPLICATIONS OF THE SELF-REGULATION MODEL

### 6.1 Introduction

Study Two employed an independent methodology to deductively test the accuracy of the Self-Regulation model's (Ward & Hudson, 1998a, 2000a) descriptions of processes occurring at each phase of the offence process. The results for Study Two were based on a relatively small of child sex offenders and, hence, would not likely generalise well to other larger samples of child sex offenders. Nonetheless, the study's sample of offenders demonstrated a number of unpredicted responses that may be pointing to differences in treatment need. Most notably, the study's sample of Active-strategy offenders appeared to demonstrate a deviant response to the Consensual script when compared with the CSA script. However, this statement must be qualified with the acknowledgment that self-report and psychophysiological measures were taken in place of phallometric measurement, which is a more direct measure of sexual arousal. Although research has demonstrated that psychophysiological responses are reliable proxy measures for sexual arousal (Masters & Johnson, 1966), it is inappropriate to assume that the results of the previous study would be replicated by employing penile plethysmography as a measure of sexual arousal. Notwithstanding this noteworthy limitation, the previous study indicated that the present sample of child sex offenders would likely differ in treatment needs. Hence, the purpose of the present chapter is to explore differences in the treatment needs of the Self-Regulation model's proposed subtypes of pathway offenders.

A reasonable starting point for deciphering the most appropriate treatment variables to compare in the four pathways to sex offending is to examine the

literature pertaining to common variables targeted in sex offender treatment. To this end, the literature suggests that a major aim in sex offender treatment programs is to decrease cognitive distortions and enhance victim empathy (Auburn & Lea, 2003; Hennessy et al., 2002; Marshall, 1999; McGrath et al., 1998; Salter, 1988; Terry & Mitchell, 2001; Tierney & McCabe, 2001a, 2001b). The literature pertaining to empathy deficits and cognitive distortions in child sex offenders will be discussed separately in the following sections.

## 6.2 Empathy Deficits

Victim empathy, in particular, is possibly the most common component of sex offender treatment (Hanson, 2003; Hennessy et al., 2002). In validation of this treatment focus on empathy, research has established that child sex offenders are notably and specifically deficient in empathy for their own victims (Fernandez, Marshall, Lightbody, & O'Sullivan, 1999; Marshall, Champagne, Brown, & Miller, 1997; Marshall, Hamilton, & Fernandez, 2001).

Subsequent research examining the basis for sex offenders' specific empathy deficits found that, in child sex offenders, a reduced ability to recognise the emotional distress of their victims was associated with general distortions concerning sex between adults and children (Marshall et al., 2001). It was suggested that these findings provide preliminary support for the proposition by Fernandez et al. (1999) that empathy deficits in child sex offenders reflect a self-serving bias involving a failure to recognise harm (Marshall et al., 2001). Thus, the research has suggested that child sex offenders misconstrue cues from their victims to enable themselves to continue to sexually abuse children without experiencing negative evaluations (Fernandez et al., 1999). However, this research has not yet addressed offender heterogeneity by examining whether this explanation holds for different subtypes of

child sex offenders. Such research is important given suggestions that offenders in treatment will differentially benefit depending on which components of empathy are primarily being targeted (Hanson, 2003).

Current understandings of empathy are somewhat simplistic, as empathy is comprised of multiple components (Hennessy et al., 2002; Hanson, 2003; Way, 2000). Commonly identified components of empathy involve cognitive processing (i.e., perspective taking), affective responding (i.e., vicarious emotion) and behavioural responses (i.e., arousal) (Hennessy et al., 2002). Research examining the components of empathy separately has indicated that extra-familial offenders are notably deficient in the affective responding component of empathy when compared with incestuous offenders (Teuma, Smith, Stewart, & Lee, 2003). Additionally, differences in predominantly cognitive empathy have been observed between the subtypes of child sex offenders proposed by the Self-Regulation model (Ward & Hudson, 1998a, 2000a). In particular, Approach pathway offenders demonstrated greater deficits in cognitive empathy than Avoidant pathway offenders (Bickley & Beech, 2002, 2003). This latter research did not investigate deficits in the other components of empathy.

Nonetheless, it would be plausible to expect that these deficits in cognitive empathy observed in Approach pathway offenders would lead to deficits in the emotional replication and behavioural response components of empathy. That is, it is implausible that a person would experience emotional reactions and respond to the distress of another person without being able to firstly take the perspective of the other person and recognise that they are distressed. This latter suggestion points towards proposals of a possible intertwining between deficits in empathy and cognitive distortions (Fernandez et al., 1999; Marshall et al., 2001).

### 6.3 Cognitive Distortions

It has been commonly observed by clinicians and demonstrated in empirical research that child sex offenders possess a number of cognitive distortions regarding their sex offending (Salter, 1988). Child sex offenders' cognitive distortions are comprised of thoughts and attitudes that enable them to deny, minimise and rationalise their behaviour, diminish their responsibility for their actions and lessen their empathy for the victim (Hatch-Maillette, Scalora, Huss, & Baumgartner, 2001; Murphy, 1990). Research has consistently indicated that child sex offenders, when compared with non-offending controls (Fisher, Beech, & Browne, 1999; McGrath et al., 1998; Mihailides, Devilly, & Ward, 2004; Tierney & McCabe, 2001b), and rapists (Blumenthal, Gudjonsson, & Burns, 1999), demonstrate higher cognitive distortions in their attitudes and beliefs regarding the legitimacy of sex between adults and children.

However, these group differences appear to obscure important differences between subtypes of child sex offenders. Research has indicated that whereas extra-familial offenders demonstrate greater cognitive distortions than non-offending controls (Marshall, Marshall, Sachdev, & Kruger, 2003), differences in cognitive distortions held by incestuous offenders and non-offending controls are minimal (Fisher et al., 1999). Furthermore, research has indicated that the pathway offenders of Ward and Hudson's (1998a, 2000a) Self-Regulation model differ in possession of cognitive distortions. Offenders with approach goals demonstrated greater cognitive distortions when compared with avoidant goal offenders (Bickley & Beech, 2002, 2003). Thus, much like the literature regarding empathy deficits, it has been found that subtypes of child sex offenders differ in the degree of cognitive distortions displayed.

#### 6.4. Other Noteworthy Deficits and Disorders

In addition to victim empathy deficits and cognitive distortions, child sex offenders typically demonstrate a number of other deficits and disorders that warrant discussion. In particular, the following sections will explore the literature pertaining to coping skills deficits as well as personality and clinical disorders in child sex offenders.

##### *6.4.1 Coping Skills Deficits*

Coping strategies are clearly a major, albeit implicit, treatment target for child sex offenders. Relapse prevention is a common component of sex offender interventions and aims to identify high risk situations for sexual re-offending. Once these high risk situations are identified, offenders work on developing the coping skills necessary to deal with and even prevent high risk situations (Lussier, Proulx, & McKibben, 2001). Clearly then, an inherent component of sex offender treatment is the enhancement of coping skills.

Research has indicated that child sex offenders and non-offending controls demonstrate similar usage of positive coping strategies, such as, problem solving, positive reappraisal and seeking social support (Kear-Colwell & Sawle, 2001). Nevertheless, when compared with controls, child sex offenders tend to embrace more negative coping strategies that involve escape-avoidance, personal distancing and being confrontational and hostile (Kear-Colwell & Sawle, 2001). Furthermore, it has been found that child sex offenders use more emotionally-based coping strategies than non-offenders (Marshall, Serran, & Cortoni, 2000) and non-sexual offenders (Looman, Abracen, DiFazio, & Maillet, 2004). Descriptions of the various pathways to sex offending imply that such pathways are associated with differences in coping ability (Hudson & Ward, 2000). Nonetheless, there is a lack of research



investigating differences between subtypes of child sex offenders in the adoption of such coping strategies.

#### *6.4.2 Personality and Clinical Disorders*

It has been argued that many deficits demonstrated by sex offenders, such as cognitive distortions and deficits in empathy, are symptomatic of broader psychopathological and personality disorders (Ahlmeyer, Kleinsasser, Stoner, & Retzlaff, 2003). When compared with other sex offenders, non-sexual offenders and non-offending controls, child sex offenders demonstrate greater psychopathology with regard to both personality disorders (Ahlmeyer et al., 2003; Bogaerts, Vervaeke, & Goethals, 2004) and clinical syndromes (Ahlmeyer et al.). Moreover, personality disorders and clinical syndromes are particularly prevalent in sex offenders diagnosed with paedophilia (Raymond, Coleman, Ohlerking, Christenson, & Miner, 1999).

A particularly prominent personality trait thought to play a significant role in offending is psychopathy (Hare, 1996). Psychopathy is a clinical construct comprised of interpersonal, affective and behavioural characteristics (Hare, 1996). With regard to interpersonal characteristics, psychopaths are typically described as being egocentric, manipulative and domineering. Affective characteristics of psychopaths include shallow and highly transient emotional states as well as a lack of empathy and guilt. Finally, with regard to behavioural features, psychopaths tend to be sensation seeking, impulsive and reckless (Serin, Mailloux, & Malcolm, 2001). Longitudinal research examining psychopathy in rapists and child sex offenders has indicated that psychopathy is a predictor of sexual and violent recidivism (Quinsey, Rice, & Harris, 1995). Specific links have also been drawn between psychopathy and sexual recidivism in child sex offenders (e.g., Firestone et al., 1999).

The empirical association between psychopathy and recidivism suggests that this clinical construct would have important implications for treatment. Supposedly psychopathic offenders would be more difficult to treat given the broad deficits they possess. However, research has provided an unclear picture regarding the treatment implications of psychopathy. While few studies have directly addressed this issue, some researchers have argued there is evidence to suggest that treatments for psychopaths are ineffective in reducing recidivism rates (Porter et al., 2000). In contrast, a recent meta-analysis of such studies indicated that there is insufficient evidence to support such claims (D'Silva, Duggan, & McCarthy, 2004). It has been argued that the research is fraught with methodological issues and studies are typically poorly designed (D'Silva et al., 2004; Skeem, Monahan, & Mulvey, 2002). Thus, the treatment implications of psychopathy are poorly understood at the present moment.

In addition, the explanatory pertinence of psychopathy in child sex offending is questionable. Evidence has suggested that there is a higher prevalence of psychopathy among rapists than among child sex offenders (Porter et al., 2001; Serin, Malcolm, Khanna, & Barbaree, 1994). Therefore, as would be expected, rapists tend to score higher on measures of psychopathy than child sex offenders (Porter et al., 2000). Despite this, sexual recidivism rates are similar for rapists and child sex offenders as a whole but differ considerably between subtypes of child sex offenders (Harris & Hanson, 2004). Sexual recidivism rates are markedly higher for extra-familial child sex offenders with male victims when compared with rapists and other subtypes of child sex offenders and rapists have higher rates of sexual recidivism than do child sex offenders with related victims and unrelated female victims (Harris & Hanson, 2004). As a consequence, it has been suggested that psychopathy is unlikely to contribute substantially to the prediction of sexual

recidivism in child sex offenders (Porter et al., 2000). Nevertheless, as frequently noted, there is considerable diversity among child sex offenders (Canter et al., 1998; Grubin, 1998; Marshall, 1997; Prentky, 1999; Prentky et al., 2006). It is plausible that certain subtypes of child sex offenders may be more psychopathic than others.

Further to this, recent research has cast doubt on the widely held view that psychopathy is a distinct and categorical clinical construct. Alternatively, recent research suggests that psychopathy would be best viewed as a constellation of marked deficits on several personality traits that are measurable on a continuum (Edens, Marcus, Lilienfeld, & Poythress, 2006; Marcus, John, & Edens, 2004; Walters et al., 2007). The implication of this representation of psychopathy is that distinctions between psychopaths and non-psychopaths are somewhat arbitrary and, hence, it is more appropriate to distinguish between groups high and low in psychopathy. In view of this research and the implication that psychopathy is indicative of deficits measurable on a continuum, it is plausible that low and subclinical levels of psychopathy may offer insight into the treatment needs of child sex offenders.

Although the potential implication of psychopathy for treatment is poorly understood at present, child sex offenders present with a range of clinical and personality disorders (e.g., Raymond et al., 1999) that have clear implications for treatment. In particular, child sex offenders are typically described as being anxious and defensive and present with interpersonal difficulties, low self-esteem and feelings of inadequacy (Kear-Colwell & Boer, 2000). Child sex offenders, when compared with other types of sex offenders and non-offenders, present as being more personality disordered and particularly depressive and anxious (Ahlmeyer et al., 2003; Bogaerts et al., 2004). Among child sex offenders diagnosed with paedophilia, clinical syndromes, such as, mood, anxiety and substance use disorders are

particularly prevalent, as are personality disorders, such as, antisocial, avoidant, narcissistic, and paranoid personality disorder (Raymond et al., 1999). Thus, it is reasonable to deduce that child sex offenders are a clinical group that present with wide ranging psychopathologies.

These psychopathological characteristics of child sex offenders have clear implications for both risk assessment and treatment. With regard to the risk assessment implications, research has indicated that certain characteristics, such as, substance use and personality disorder as well as psychosis, are associated with sexual recidivism (Långström, Sjöstedt, & Grann, 2004). Thus, the psychopathologies demonstrated by child sex offenders place them at a greater risk for sexual recidivism. In addition, the problematic characteristics demonstrated by child sex offenders pose a number of challenges for treatment (Kear-Colwell & Boer, 2000; Raymond et al., 1999), as they make it difficult for them to develop and maintain a therapeutic relationship (Kear-Colwell & Boer, 2000).

A possible causative but controversial contributor to such psychopathology is childhood abuse. It has been commonly reported that the rate of prior sexual abuse in child sex offenders is substantially higher than is the rate of sexual abuse in non-offending controls (Teuma et al., 2003). The psychopathologies in adults who were sexually abused as children can be wide ranging and include anxiety, depression, and substance abuse disorders (see Johnson, 2004 for a review). In addition, it has been suggested that sexual and physical abuse can disrupt the development of secure and healthy attachment styles (McCormack, Hudson, & Ward, 2002; Marshall & Marshall, 2000). In support of this proposition, the literature strongly supports an empirical link between child sex offending and an insecure adult attachment style (Kear-Colwell & Boer, 2000; McCormack et al., 2002). Additionally, although subtypes of child sex offenders such as, incestuous and extra-familial offenders,

report similar incidences of childhood sexual abuse, childhood abuse is more commonly reported by those with insecure attachment styles (Smallbone & McCabe, 2003). In view of this, it appears that abuse history and attachment difficulties may hold explanatory weight for understanding the causes of the psychopathologies demonstrated by the various subtypes of child sex offenders.

Despite the apparent explanatory power of abuse history, it is necessary to mention that the link between childhood sexual victimisation and subsequent offending is not straight forward. The victim-offender cycle is mitigated by protective/resiliency factors such as education and social support and, as such, many victims of abuse do not abuse others later in life (Lambie, Seymour, Lee, & Adams, 2002). Thus, it is somewhat simplistic to propose that childhood abuse may solely account for the psychopathologies demonstrated by child sex offenders.

## 6.5 Limitations of Treatment-Variable Literature

Despite the value of this research in identifying target variables for treatment, an issue that requires addressing is the psychometric properties of the measures used to assess these treatment variables. It has been argued that reliable and valid measures of treatment variables are needed to aid in sex offender treatment. There are a plethora of instruments designed to assess cognitive distortions and empathy deficits and they differ in psychometric soundness. Many of the instruments used have been found to demonstrate unsatisfactory levels of reliability and validity (Tierney & McCabe, 2001a, 2001b). Therefore, it is essential to subject existing measures to further empirical validation.

A further common criticism of these self-report instruments is that they are reasonably transparent and, therefore, subject to social desirability response biases (e.g., McGrath et al., 1998; Milner & Campbell, 1995; Tierney & McCabe, 2001a,

2001b). This latter criticism is particularly problematic given findings that child sex offenders attempt to present themselves in a more positive light with regard to sexual behaviours, attitudes and beliefs than non-offending controls (McGrath et al., 1998).

A common procedure to accommodate for the lowered reliability of self-report measures with sex offenders is to incorporate measures of social desirability or lie and faking scales (Marshall, Fernandez, & Cortoni, 1999; Milner & Campbell, 1995). However, due to the self-report nature of these additional measures, it is questionable whether they overcome these reliability problems (e.g., Langevin, Wright, & Handy, 1990; Marshall & Hall, 1995). Self-report instruments assessing cognitive distortions, empathy deficits and coping skills clearly have limitations but this does not negate the fact that they are useful aids in treatment.

In addition to social desirability influences on self-report measures, responses to questionnaires assessing sexual attitudes and beliefs and reactions to sexual stimuli may be influenced by an individuals' propensity to respond to sexual situations with high or low excitation as well as positive and negative affect. For instance, research has indicated that a personality construct labelled erotophobia-erotophilia, is related to responses on various measures of sex-related evaluations, responses to erotica and approach versus avoidant responses to sexual situations (Fisher et al., 1988).

Erotophobia-erotophilia refers to the tendency to respond to sexual stimuli with negative or positive affect (Fisher et al., 1988). Therefore, research examining treatment variables in sex offenders should also incorporate measures of response tendencies for sexual stimuli to allow for consideration of the possible effects of sexual response tendencies.

## 6.6 Introduction to Study Three

Before proceeding to examine differences between pathway offenders with regard to treatment variables of interest, it would be useful to firstly establish a non-deviant point of comparison. It has been argued elsewhere that the interpretation of an individual's scores on psychological tests is aided by establishing a standard with which the individual's scores can be judged. This standard is typically established by gathering data on the scores from a normal sample and this, in turn, allows for judgments regarding whether an individual's score deviates from the norm (Fisher et al., 1999). Studies One and Two demonstrated the utility of establishing a non-deviant point of comparison with which to interpret the psychological and psychophysiological responses of the different pathway offenders. Therefore, this study will compare the responses of Offenders and non-offending Controls on measures assessing psychopathology, psychopathy and coping styles.

A number of characteristics of child sex offenders were described in the introductory sections of this chapter. These will be summarised briefly here as a basis for hypothesised differences between Offenders and Controls. Firstly, research has indicated that child sex offenders do not demonstrate a generalised deficit in empathy when compared with non-offending controls (McGrath et al., 1998; Tierney & McCabe, 2001a). Rather, child sex offenders tend to have empathy deficits specifically for their victims (Fernandez et al., 1999; Marshall et al., 1997, 2001). As such, comparisons between offenders and controls in empathy deficits are unlikely to reveal meaningful differences. Secondly, research has consistently shown that child sex offenders, when compared with non-offending controls, demonstrate higher cognitive distortions in their attitudes and beliefs regarding the legitimacy of sex between adults and children (Fisher et al., 1999; McGrath et al., 1998; Mihailides et al., 2004; Tierney & McCabe, 2001b). Furthermore, research has indicated that child

sex offenders use more dysfunctional and emotion-focused coping strategies when compared with non-offending controls (Kear-Colwell & Sawle, 2001; Marshall et al., 2000).

Research has suggested that these deficits are reflective of general psychopathologies in child sex offenders (Ahlmeyer et al., 2003). Consistent with this view, child sex offenders demonstrate considerably higher psychopathology than non-offending controls with regard to personality disorders and clinical syndromes (Ahlmeyer et al., 2003; Bogaerts et al., 2004). A possible explanatory variable for this observed psychopathology is the relatively higher rates of childhood sexual abuse in child sex offenders compared with community non-offending controls (Teuma et al., 2003). Based on the present summary of findings, it is likely that Offenders and Controls will differ with regard to the abovementioned variables.

#### 6.7 Study Three: Differences between Sex Offenders and Controls in Variables

##### Targeted in Treatment

The aim of Study Three is to determine whether the sample of child sex offenders described in the preceding studies demonstrate particularly high levels of psychopathology. If this sample is particularly deviant and psychologically symptomatic, then they should demonstrate higher levels of psychological symptomatology than non-offending controls. Consistent with previous findings (Teuma et al., 2003), it is hypothesised that Offenders will have a significantly higher reported incidence of sexual abuse than Controls but not necessarily a higher incidence of physical abuse. In accordance with previous research (Ahlmeyer et al., 2003; Bogaerts et al., 2004; Kear-Colwell & Sawle, 2001; Marshall et al., 2000), it is also hypothesised that Offenders will have significantly higher mean scores for psychological symptomatology, psychopathy and dysfunctional coping responses.



Finally, based on previous research (Fisher et al., 1999; McGrath et al., 1998; Tierney & McCabe, 2001b), it is predicted that Offenders will have significantly lower scores on the ABCS, indicative of greater cognitive distortions than Controls.

## 6.8 Method

### 6.8.1 Participants

Participants were the 12 child sex offenders and 12 controls reported in Study One. In Study One, it was found that these two groups did not differ in scores on the eight critical items for sexual dysfunction (MSI: Nichols & Molinder, 1984). Offenders and Controls also obtained similar scores for the Sexual Excitation Scale and the Inhibition due to threat of Performance Consequences Scale (SIS2) (Janssen et al., 2002a, 2002b). However, Offenders scored significantly higher than Controls on the Inhibition due to threat of Performance Failure Scale (SIS1). This difference is not expected to confound comparisons between Offenders and Controls in the present study, given that it was unlikely to have influenced responses to the CSA and Consensual scripts in Study One.

### 6.8.2 Materials

*Questionnaires/Scales.* The Symptom Checklist-90-R (SCL-90-R: Derogatis, 1983) is a brief, multidimensional self-report inventory designed to screen for a broad range of psychological problems and symptoms of psychopathology. The SCL-90-R consists of 90 items/symptoms rated on the extent to which they have been distressing for the participant in the past seven days on a 5-point scale ranging from “not at all” (zero) to “extremely” (four). These items are combined to form nine scales; Somatisation, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation and

Psychoticism. The SCL-90-R also yields three global indices; Global Severity Index, Positive Symptom Distress Index and Positive Symptom Total. High scores are indicative of greater psychological distress. Normalised *T* scores are calculated for the nine symptom scales and three global indices. According to current guidelines, a *T* score of 63 or higher on any of these scales is indicative of clinically significant levels of symptomatology. In addition, a *T* score of 63 or higher on the GSI or on any two of the nine symptom scales is used as an index to establish psychiatric caseness (Derogatis, 1994).

The psychometric properties for the individual scales of the SCL-90-R are generally good. Test-retest reliability of individual SCL-90-R scales is acceptable and internal consistency of individual scales ranges from moderate to high (Kiger & Murphy, 1987). Although the discriminant validity of individual scales is low with regard to identifying distinct symptom clusters, the convergent validity of individual scales, when contrasted with corresponding scales on the Minnesota Multiphasic Personality Inventory, is good (Brophy, Norvell, & Kiluk, 1988) and the predictive/concurrent validity of individual scales is moderate to high (Schmitz, Kruse, Heckrath, Alberti, & Tress, 1999).

In selecting the SCL-90-R for use in the current study, consideration was given to other similarly widely used and validated measures of psychopathology such as the Millon Clinical Multiaxial Inventory – Third Edition (MCMI-III). However, the SCL-90-R requires a shorter administration time and a lower minimum reading level requirement when compared with alternative instruments such as the MCMI-III (Millon, Millon, & Davis, 1994). Given the questionnaire intensive and, hence, time-consuming nature of the current study, these characteristics of the SCL-90-R ultimately determined its selection.

The Marlowe Crowne Social Desirability Scale-Short Form C (MC:C: Reynolds, 1982) is a 13-item scale that was validated on a forensic sample (Andrews & Meyer, 2003) and is a short form of the Crowne and Marlowe's (1960) 33-item Social Desirability Scale. Respondents are asked to decide whether each of the statements is true or false as they pertain to them personally. Higher scores are indicative of a tendency for socially desirable responding. Refer to appendix P for a copy of the MC:C items. The MC:C is a psychometrically strong short-form with acceptable internal consistency (Loo & Thorpe, 2000; Reynolds, 1982) and test-retest reliability (Zook & Sipps, 1985) as well as high concurrent validity (Reynolds, 1982). In selecting this measure of socially desirable responding, consideration was given to other well validated and widely used scales. However, given the questionnaire intensive and, hence, time-consuming nature of the current study, the MC:C was selected on the basis of both its brevity and good psychometric properties.

The Abel and Becker Cognition Scale (ABCS) is comprised of 29 statements that address cognitive distortions held by child sex offenders with regard to the legitimacy of adult sexual contact with children (Abel et al., 1984). Each of the 29 items are rated on a five-point scale indicating degree of agreement with each statement ranging from 1 (Strongly Agree) to 5 (Strongly Disagree). While norms for this scale are not available, lower scores on the ABCS are indicative of high cognitive distortion (Salter, 1988). Please refer to Appendix Q for a copy of the ABCS items.

The psychometric properties of the ABCS are acceptable. The ABCS has demonstrated high internal consistency and moderate to high test-retest reliability (Tierney & McCabe, 2001b) as well as good discriminant validity for differentiating between child sex offenders, rapists and non-sex offenders (Abel et al., 1989; Tierney & McCabe, 2001b).

The COPE Inventory – dispositional version (Carver, Scheier, & Weintraub, 1989) was developed to assess a broad range of coping responses, including both functional and dysfunctional responses (see Appendix R). The dispositional 60-item version requires participants to rate the extent to which they usually use the strategies listed when they are stressed, on a four-point scale ranging from 1 (I usually don't do this at all) to 4 (I usually do this a lot). There are 15 coping strategy categories and scores on each category range from 0 to 16. The internal consistency and test-retest reliability of these individual scales have ranged from moderate to high (Carver et al., 1989). The convergent and discriminant validity of the individual scales of the COPE have also been supported (Carver et al., 1989).

The Hare P-SCAN: Research Version (Hare & Hervé, 1999) is a 90-item checklist that screens for behavioural traits related to psychopathy. Three main facets of psychopathy are measured, each with 30 items: interpersonal (relationships and interactions with others), affective (feelings and emotions); and lifestyle (need for stimulation, impulsivity, and irresponsible behaviour). Each item is rated on a 3-point scale reflecting the extent to which the user feels it may apply to the person of interest. Total and Facet scores range from zero to 60 and are plotted along a scale indicating level of concern ranging from very low to very high. Although there is limited empirical work examining the psychometric properties of the scale, preliminary findings indicated high internal consistency reliability and moderate convergent/concurrent validity for non-clinical populations (Elwood, Poythress, & Douglas, 2004).

It should be noted that the Psychopathy Checklist-revised (PCL-R: Hare, 1991, 2003) and the Psychopathy Checklist: Screening Version (PCL:SV: Hart, Cox, & Hare, 1995) are typically used in forensic settings to screen for and diagnose psychopathy respectively. Although the Hare P-SCAN is unable to provide a

diagnosis of psychopathy, the Hare P-SCAN was chosen above these other well-validated and widely used instruments for a number of reasons. Firstly and most notably, it has been noted elsewhere that psychopathy is typically less prevalent in child sex offenders when compared with rapists (Porter et al., 2001). Hence, it has been argued that psychopathy has less explanatory weight in predicting sexual re-offending in child sex offenders (Porter et al., 2000). Therefore, psychopathy was neither a key variable under investigation in this study nor the proceeding studies. The aim of employing a measure of psychopathy in the current study was to simply compare and explore the possible pertinence of sub-clinical levels of psychopathy.

In view of this, and given the time demanding nature of the present study, administration time was an important consideration. The Hare P-SCAN has a considerably shorter administration time when compared with the PCL-R and the PCL:SV, which was advantageous given the above stated reasons. Secondly, considerably higher user qualifications are required to administer the PCL-R and PCL:SV when compared with the Hare P-SCAN, as users of these former instruments are required to attend an intensive training program at considerable cost to the user. The additional time and cost requirements of the Hare PCL-R and Hare PCL:SV could not be warranted given that psychopathy was not a key variable under investigation.

### *6.8.3 Procedure*

Informed consent of participants was obtained and they were briefly interviewed for details pertaining to their age and a history of physical or sexual abuse. Participants were then asked to complete the study's questionnaires and were encouraged to ask for assistance if required. Upon completing all measures, participants were fully debriefed.

#### *6.8.4 Design and Data Analysis*

Study Three utilised a single-factor between subjects design. The between subjects factor was group (Offenders, Controls) and the dependent variables were the percentage of Offenders and Controls reporting a history of abuse as well as mean scores on the questionnaires and scales. Demographic comparisons between the Offenders and Controls were analysed in Statview using either chi-square analyses or unpaired t-tests. To accommodate for the expected increase in Type I error from performing multiple separate analyses, consideration was given to employing a Bonferoni corrected alpha level. However, the Bonferoni correction is a highly conservative adjustment that can result in additional Type 2 error. Hence, in place of a Bonferoni corrected alpha level, a more stringent significance criterion of 0.01 was adopted for all analyses to provide a balance between Type 1 and Type 2 error rates. Comparisons with a probability value of less than .05 but not less than .01 will be considered a trend.

### 6.9 Results

Chi-square comparisons were made of the percentage of Active and Passive offenders reporting a history of physical and sexual abuse. As shown in Table 36, there was a trend for a higher percentage of Offenders than Controls to report a history of sexual abuse. However, there was no difference between groups in the reported history of physical abuse.

Unpaired t-tests of differences in symptomatology mean t-scores between Offenders and Controls were calculated. These results are displayed in Table 37. There was a trend for Offenders to have higher scores on the Interpersonal Sensitivity, Depression, Anxiety, Paranoid Ideation, and Psychoticism symptom scales as well as the Global Severity Index. Offenders scored significantly higher on

the Positive Symptom Distress Index than Controls. In addition, Offenders obtained scores of clinical significance on the Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety and Psychoticism scales as well as on the Global Severity Index and Positive Symptom Total. Offenders as a group met the criteria for the psychiatric caseness index.

**Table 36.** Continuity corrected chi-square comparisons (N = 24) of abuse history between Offenders and Controls.

Form of Abuse	% Offenders	% Controls	$\chi^2$ (1)	p
Physical	58.3	41.7	0.2	ns
Sexual	58.3	8.3	4.7	.03

**Table 37.** Unpaired t-tests for differences in symptomatology mean t-scores for Offenders and Controls as assessed by the SCL-90-R.

Scale	t (22)	p	Mean (SD)			
			Offenders		Controls	
Somatisation	0.8	ns	61.8	(16.6)	56.8	(13.0)
Obsessive-Compulsive	1.4	ns	63.3*	(14.9)	55.8	(11.4)
Interpersonal Sensitivity	2.3	=.03	67.7*	(12.4)	54.5	(15.9)
Depression	2.4	=.02	66.7*	(14.7)	53.9	(10.7)
Anxiety	2.5	=.02	68.4*	(16.9)	52.2	(15.3)
Hostility	0.5	ns	50.3	(14.1)	47.3	(13.7)
Phobic Anxiety	1.8	ns	59.4	(22.0)	44.3	(18.0)

Paranoid Ideation	2.1	=.04	62.8	(15.1)	51.1	(11.5)
Psychoticism	2.5	=.02	65.9*	(14.0)	49.0	(18.7)
Global Severity Index	2.4	=.03	69.2*	(14.2)	55.9	(13.3)
P've Sympt. Distress Index	4.2	<.001	62.9	(9.3)	49.3	(6.2)
Positive Symptom Total	1.1	ns	63.4*	(14.3)	56.7	(15.6)

Notes: \* denotes clinical significance as indicated by a T-score of 63 or higher

Unpaired t-test comparisons were made of differences in means scores between Offenders and Controls on the questionnaires and scales. Table 38 displays these results. The two groups obtained similar mean scores on the measure assessing social desirability response biases (MC-C).

**Table 38.** Unpaired t-test comparisons of mean scores on questionnaire measures and scales between Offenders and Controls.

Questionnaire/ scale	T	df	p	Mean (SD)			
				Offenders		Controls	
MC:C	1.9	21	ns	7.2	(3.3)	4.6	(3.2)
Hare-PSCAN							
Interpersonal	4.1	22	<.001	7.7	(3.6)	2.8	(1.9)
Affective	9.5	22	<.001	13.3	(3.7)	2.5	(1.3)
Lifestyle	3.6	22	<.01	13.2	(6.3)	6.2	(2.6)
Total	6.1	22	<.001	11.2	(4.0)	3.8	(1.3)
ABCS	3.3	21	<.01	118.8	(15.5)	136.1	(8.7)



However, Offenders scored significantly higher than Controls on each of the dimensions as well as overall characteristics of psychopathy (Hare-PSCAN). Furthermore, Offenders scored significantly lower on the ABCS than Controls suggesting they possessed greater cognitive distortions.

Unpaired t-tests comparisons were made of differences between the mean scores of Offenders and Controls on coping responses. These results are displayed in Table 39. There was a trend for Controls to demonstrate higher usage of functional coping responses such as positive reinterpretation and growth, use of social support and active coping. In contrast, Offenders demonstrated higher usage of dysfunctional coping strategies than controls with a significantly higher score on denial. Both groups reported relatively high usage of functional coping strategies such as planning and acceptance and relatively low usage of other functional and dysfunctional coping strategies.

**Table 39.** Unpaired t-tests for differences in coping response mean scores for Offenders and Controls as assessed by the COPE inventory.

Scale	t (22)	p	Mean (SD)			
			Offenders		Controls	
Positive reinterp. and growth	2.1	=.05	10.0	(3.4)	12.6	(2.5)
Mental disengagement	0.6	ns	8.3	(2.5)	7.8	(2.1)
Venting of emotions	1.2	ns	8.2	(3.5)	9.6	(1.7)
Use instrumental support	2.5	=.02	7.8	(3.7)	11.2	(2.9)
Active coping	2.3	=.03	10.7	(2.8)	12.8	(1.5)
Denial	3.0	<.01	7.4	(2.5)	4.9	(1.5)
Religious coping	0.4	ns	6.8	(3.7)	6.2	(3.2)

Humour	1.6	ns	6.2	(2.2)	8.2	(3.6)
Behavioural disengagement	1.4	ns	7.2	(2.5)	5.9	(2.2)
Restraint	1.6	ns	8.9	(3.6)	10.8	(1.9)
Use emotional social support	1.8	ns	7.4	(4.1)	10.2	(3.3)
Substance use	0.2	ns	6.9	(4.7)	6.7	(3.3)
Acceptance	0.4	ns	11.6	(2.9)	11.1	(2.7)
Suppres. competing activities	1.2	ns	9.0	(3.2)	10.2	(1.9)
Planning	1.5	ns	10.9	(3.9)	12.8	(1.7)

### 6.10 Discussion

The aim of Study Three was to establish a non-deviant point of comparison with which to interpret the responses of the Self-Regulation model's pathway offenders to measures assessing variables commonly targeted in sex offender treatment. Thus, the responses of Offenders and non-offending Controls were compared on measures assessing psychological symptomatology, psychopathy and coping styles. However, there were some notable limitations in the present study. Most notably, the results were based on a small number of participants (12 Offenders and 12 Controls), and hence, should be interpreted with caution. Furthermore, to reduce the type 1 error rate associated with conducting multiple t-tests and chi-square analyses, a more stringent alpha level of .01 was selected in determining the statistical significance of differences. The adoption of this more stringent alpha level meant that certain comparisons no longer met the criteria for statistical significance. Clearly, the present study would have benefited from greater statistical power, which would have been achieved through substantially increasing sample size.

Nonetheless, a number of comparisons did reach statistical significance as defined by an alpha level of .01 and, hence, there was support for the present study's hypotheses. Please note that, following on from the design and results section, the abbreviated terms "Offenders" and "Controls" in title case will be used to refer to the present sample of child sex offenders and non-offending controls and not child sex offenders or non-offending populations in general. The present sample of child sex offenders demonstrated relatively higher psychological symptomatology (as indicated by the positive symptoms distress index), higher scores indicative of psychopathy traits, higher usage of dysfunctional coping strategies (most notably denial), and more cognitive distortions (as indicated by lower scores on the ABCS) than non-offending controls. These results lend some support to the suggestion that deficits in cognitive distortions, and, hence victim empathy, may be indicative of more general psychopathology in child sex offenders (Ahlmeyer et al., 2003).

Differences between the groups in responses to these measures are unlikely to reflect biases in socially desirable responding, as Offenders and Controls did not differ significantly on scores on the social desirability measure (MC:C). In addition, it was established in Study One that Offenders and Controls did not differ in sexual dysfunction and sexual response tendencies that were likely to influence the present responses to the measures employed.

Given the consistency of previous findings regarding relatively high scores on measures of cognitive distortions demonstrated by child sex offenders when compared with non-offenders (Fisher et al., 1999; McGrath et al., 1998; Tierney & McCabe, 2001b), the present results were predictable. The present sample of child sex offenders, as a group, demonstrated more distortions in views regarding the legitimacy of sex between adults and children. The mean scores on the ABCS for child sex offenders and controls in the present study were remarkably similar to the

mean scores obtained in previous research for these groups on the same measure (Tierney & McCabe, 2001b). Thus, findings that child sex offenders commonly share cognitive distortions appear to be fairly robust.

These deficits in cognitive distortions may be explained by the view that such distortions enable offenders to engage in offences without experiencing negative evaluations of themselves or the act they have committed (Fernandez et al., 1999). The empirical basis for this proposal stems from the observed association between cognitive distortions regarding sex between adults and children and deficits in offenders' recognition of emotional distress in their victims (Marshall et al., 2001). Thus, it is plausible that cognitive distortions regarding the legitimacy of adult-child sex may protect offenders from experiencing negative reactions.

This view is in contrast to findings in the psychology literature that have indicated that distorted cognitions and schemas regarding the self, the world and the future are associated with experiences of both depression (Beck, 1972, 1991; Clark, Beck, & Alford, 1999; Leung & Poon, 2001; Marcotte, Lévesque, & Fortin, 2006) and anxiety (Beck, 1991; Leung & Poon, 2001). It is typically postulated that such distorted cognitions and schemas may lead to negative affective responses.

In contrast, the cognitive distortions demonstrated by child sex offenders appear to facilitate their behaviour by dampening negative reactions. The behavioural maintenance effects of distorted cognitions and schemas are also evident in other problematic and maladaptive behaviours such as violence towards women or an intimate partner (Echeburúa, Fernández-Montalvo, & Amor, 2003; Eckhardt, Barbour, & Davison, 1998) and problem gambling (Jefferson & Nicki, 2003; Steenbergh, Meyers, May, & Whelan, 2002). In such problem behaviours, the distorted cognitions and schemas function to justify and increase the likelihood of the

behaviour. Thus, the cognitive distortions demonstrated by child sex offenders appear to function as self-serving biases rather than self-defeating schemas.

The present results were somewhat inconsistent with previous research suggesting whereas child sex offenders adopt positive coping strategies to the same extent as non-offenders, they report more frequent use of negative coping strategies than controls (Kear-Colwell & Sawle, 2001). The present results suggested that Controls more frequently used positive functional coping strategies, such as, active coping and seeking of instrumental support. These discrepant findings may be indicative of differences in sample characteristics. Although Kear-Colwell and Sawle's (2001) sample was comprised of paedophiles undergoing treatment, the present sample was comprised of untreated child sex offenders. Thus, it is plausible that Kear-Colwell and Sawle's sample was a better adapted and, hence, less representative group as a result of the treatment they had been receiving.

Nonetheless, it has been noted elsewhere that the present sample of child sex offenders is small and, hence, it is unlikely that the present sample would be representative of larger samples of child sex offenders. Given the limitations of the present study, it possible that the present findings may be specific to the current sample of child sex offenders and, therefore, may not be replicated in repeat studies involving larger and more representative samples.

Offenders in the present study reported higher usage of dysfunctional coping strategies when compared with Controls. In particular, Offenders used denial more frequently than did Controls. Taking into account the previous postulation regarding the self-serving nature of offenders' cognitive distortions, this relatively more frequent usage of denial may likely reflect the Offenders' propensity to engage in psychological processes that guard them from experiencing negative responses to the

offences they commit. Thus, it is plausible that a range of interrelated psychological processes may serve to reinforce sex offending.

Given the association between psychopathy and violent as well as sexual re-offending (Quinsey, Rice et al., 1995), it was not surprising to find that Offenders scored significantly higher on each of the facets of psychopathy as well as overall on the Hare P-SCAN. However, the clinical significance of these differences in scores on the Hare –PSCAN is questionable given that the mean scores for both the child sex offenders and controls were in the low range of concern and, hence, it was unlikely that members of either group would have met the criteria for psychopathy. These findings are consistent with proposals that psychopathy is unlikely to add considerable weight to predictions of recidivism in child sex offenders (Porter et al., 2000).

Nonetheless, it is somewhat simplistic to dismiss the importance of psychopathy in explaining child sex offending given recent research has suggested that psychopathy is best viewed as a constellation of personality traits measurable on a continuum and, hence, it is appropriate to distinguish between individuals high and low in psychopathy (Edens et al., 2006; Marcus et al., 2004; Walters et al., 2007). Indeed, the present sample of Offenders consistently and significantly scored higher on each of the dimensions of the Hare P-SCAN when compared with the non-offending Controls although the mean scores for both groups were in the low range of concern. Furthermore, research has shown that the combination of sexual deviance and psychopathy is more highly predictive of sexual recidivism in child sex offenders than either variable alone (e.g., Rice, Quinsey, & Harris, 1991; Seto et al., 2004). Thus, previous research would suggest that the relatively higher scores on the Hare P-SCAN for the present sample of Offenders is worthy of further investigation.

The explanatory basis for the role of psychopathy in child sex offending will be explored further in the following chapters.

The present sample of child sex offenders demonstrated a range of scores on the SCL-90-R that were indicative of clinical significance as defined by a t-score of 63 or higher. Nonetheless, interpretations of these scores on the SCL-90-R should be viewed with caution given that elevated t-scores on the SCL-90-R are not synonymous with clinical diagnosis and the SCL-90-R is purely a screening tool.

The present findings of relatively higher psychological symptomatology in the Offender group is consistent with previous research indicating that child sex offenders, as a group, demonstrate substantially greater levels of psychopathology when compared with non-offending controls (Ahlmeyer et al., 2003; Bogaerts et al., 2004). In particular, Offenders as a group obtained scores of clinical significance on the Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety and Psychoticism scales of the SCL-90-R. Clinically significant levels of symptomatology for Depression, Anxiety and Interpersonal Sensitivity were expected given previous research has indicated that symptoms such as depression and anxiety are particularly high in child sex offenders (Ahlmeyer et al., 2003; Bogaerts et al., 2004) as are characteristics such as interpersonal difficulties (Kear-Colwell & Boer, 2000). However, clinically significant scores for Obsessive-Compulsive and Psychoticism were not expected. More extensive psychological problems are typically evident in child sex offenders diagnosed with paedophilia (Raymond et al., 1999). Thus, the wide ranging clinically significant symptoms reported by the present sample of child sex offenders points to the likelihood of greater sexual deviance in the present sample. It may be argued that, as noted in previous chapters, the present sample of offenders were untreated and, as such, may display more wide ranging psychological symptoms.

The higher levels of psychological symptomatology in child sex offenders may also be reflective of the relatively high rate of abuse in their childhood histories (Teuma et al., 2003). There was a trend by which Offenders reported a higher percentage of sexual abuse than Controls. However, there was no difference between the groups in reported history of physical abuse. Research has demonstrated an association between childhood sexual victimization and adult psychopathology (see Johnson, 2004 for a review). Thus, the present results lend credence to the view that the higher levels of psychological symptomatology demonstrated by child sex offenders may be caused by early abusive histories. Nonetheless, as mentioned previously, the relationship between childhood sexual victimisation and subsequent offending is mitigated by a number of factors and, hence, is not clear-cut (Lambie et al., 2002). Thus, it is not possible at this stage to decipher the exact basis for the clinically significant levels of psychological symptomatology demonstrated by the present sample of child sex offenders. Furthermore, it will be further noted here that clinically significant scores on the SCL-90-R, as used in the present study, are not synonymous with clinical diagnosis and the SCL-90-R is purely a screening tool.

It has been noted on numerous occasions that child sex offenders are a highly diverse population (e.g., Canter et al., 1998; Cohen & Galynker, 2002; Fillion, 2003; Fisher & Mair, 1998; Hudson et al., 2000; Looman et al., 2001; Marshall, 1997; O'Shaughnessy, 2002; Polaschek, 2003a; Veneziano & Veneziano, 2002). Therefore, although child sex offenders may share some common deficits and symptoms of psychological disturbance, it is plausible that subtypes of child sex offenders will differ in treatment need. Supporting this claim, research by Ward and colleagues has indicated that subtypes of child sex offenders present with different treatment needs (e.g., Hudson et al., 2000; Ward, 2000; Ward & Hudson, 1998a). Consistent with Ward and colleagues findings, it was concluded in Study Two that



the diversity in pattern of responding to sex offending and consensual sexual experiences demonstrated by the four types of pathway offenders pointed to differing treatment needs.

A clearly emerging theme with regard to variables targeted in treatment is that their relative salience differs between the subtypes of child sex offenders. It has been argued that, in order to be effective, treatment programs for sex offenders must accommodate offender heterogeneity and address the major factors contributing to offending in each individual (Matson, 2002). Having established a non-deviant standard for the present sample with which to interpret responses to questionnaire measures of variables pertinent to treatment, it is now timely to investigate differences between pathway offenders in the present sample in treatment need.

#### 6.11 Study Four: Treatment Needs of Self-Regulation Model Pathway Offenders

The aim of Study Four is to examine hypothesised differences in treatment variables between the four subtypes of child sex offenders depicted in the Self-Regulation model of the sex offence process (Ward & Hudson, 1998a, 2000a). The utility of the Self-Regulation model in pointing to the treatment needs of different subgroups of child sex offenders was discussed in Chapter Three. In summary, it has been suggested that Avoidant-Passive offenders would present with deficits in a number of skills including coping, self-regulation, self-efficacy, self-awareness and relationship skills. Similarly for Avoidant-Active offenders, deficits were expected in self-regulatory, coping and relationship skills with lesser deficits in self-awareness. Approach-Automatic offenders were anticipated to present with problems in self-regulation with regard to meta-cognitive control/explicit attention and were hypothesised to have negative world views as well as cognitive and empathy deficits. Finally, Approach-Explicit offenders were expected to present

with maladaptive schemas of the world, possibly deviant sexual preferences and cognitive distortions regarding the legitimacy of sex between adults and children (Hudson & Ward, 2000).

In support of these suggested targets for treatment, independent researchers have found that Approach and Avoidant goal offenders differ on a number of variables that are commonly addressed in treatment interventions for sex offenders. Bickley and Beech (2002, 2003) found that offenders with approach goals scored significantly higher on cognitive distortions and victim empathy distortions when compared with offenders with avoidant goals.

Despite this validating research, the treatment implications of Active versus Passive strategy pathways to sex offending have been relatively under-explored. Bickley and Beech (2002) noted that the distinctions regarding Active and Passive strategy pathway offenders were less conclusive. They found that Passive strategy offenders had a higher external locus of control but unexpectedly the two groups demonstrated similar levels of assertiveness and impulsivity. As a possible explanation, they proposed that an offenders' use of self-regulation strategy (Active/Passive) may vary depending on the situation. Nevertheless, these findings support the proposition that treatment needs of the four pathway offenders differ markedly.

Based on this previous research, a number of hypotheses are formulated. Firstly, consistent with previous research that has demonstrated similarities between subtypes of child sex offenders in abuse history (Smallbone & McCabe, 2003); it is hypothesised that a similar percentage of Approach and Avoidant offenders will report a history of physical and sexual abuse. Secondly, based on previous research (Bickley & Beech, 2002, 2003), it is predicted that Approach offenders will

demonstrate higher scores on measures of cognitive distortions and lower scores on measures of victim empathy than Avoidant offenders.

In addition, Approach pathways to sex offending have been characterised by deviant sexual desire (Ward & Hudson, 1998a, 2000a). Thus, it is predicted that Approach offenders will obtain significantly higher scores than Avoidant offenders on a measure of likelihood of paedophilic interests. Finally, as discussed previously, research has linked the deficits demonstrated by child sex offenders with broader psychopathologies (Ahlmeyer et al., 2003). Research has also indicated that offenders diagnosed with paedophilia exhibit high levels of psychopathology (Raymond et al., 1999). Given Approach offenders will likely exhibit higher deficits in empathy and cognitive distortions and are characterised by deviant sexual arousal, it is hypothesised that they will obtain higher scores on psychological symptomatology.

With regard to responses expected from Avoidant offenders, research has drawn parallels between negative affect pathways to sex offending and the antisocial/general criminality dimension predictive of offending (Doren, 2004b; Roberts et al., 2002). Given that Avoidant pathways to offending are characterised by negative affect (Ward & Hudson, 1998a, 2000a), it is hypothesised that Avoidant offenders will obtain higher scores on the measure of psychopathy. Also, consistent with Hudson and Ward's (2000) predictions, it is hypothesised that Avoidant offenders will demonstrate higher usage of dysfunctional coping strategies. Approach and Avoidant offenders are expected to obtain similar scores on measures assessing sexual dysfunction and sexual response tendencies.

Given findings regarding Active and Passive offenders have been inconclusive, hypothesised differences between these groups are tentative. Nonetheless, consistent with previous research (Smallbone & McCabe, 2003), it is

hypothesised that a similar percentage of Active and Passive offenders will report a history of physical and sexual abuse. Consistent with the proposal that passive pathways to offending are characterised by under-regulation (Ward & Hudson, 1998a, 2000a), it is hypothesised that Passive offenders will report significantly less frequent usage of functional coping strategies compared with Active offenders. However, given that the Avoidant-Active pathway is characterised by mis-regulation (Hudson & Ward, 2000; Ward & Hudson, 1998a, 2000a), no differences between Active and Passive strategy offenders are predicted for frequency usage of dysfunctional coping strategies. Differences between Active and Passive pathway offenders in cognitive distortions and victim empathy are not expected, as the Self-Regulation model implies it is the goal of the offender that should determine these variables. In view of this, as well as of research indicating Active and Passive offenders do not differ with regard to impulsiveness and assertiveness (Bickley & Beech, 2002), no differences between these groups in psychopathy and psychological symptomatology are predicted. Finally, Active and Passive offenders are expected to obtain similar scores for measures assessing sexual dysfunction and sexual response tendencies as well as likelihood of demonstrating paedophilic interests.

## 6.12 Method

### *6.12.1 Participants*

Participants were the 12 child sex offenders reported in Study One. These participants were allocated to either the Approach or Avoidant and Active or Passive pathways in Study Two.

### 6.12.2 Materials

*Questionnaires/Scales.* The following questionnaires/scales from Study Three were used: SCL-90-R (Derogatis, 1983); MC-C (Reynolds, 1982); ABCS (Abel et al., 1984); Hare P-SCAN (Hare & Hervé, 1999); and the COPE Inventory (Carver et al., 1989).

In addition, the SES/SIS (Janssen et al., 2002a, 2002b) and MSI eight critical items for sexual dysfunction (Nichols & Molinder, 1984) were used. These measures were described in Study One.

The Victim Empathy Distortions Scale (VEDS: Beckett & Fisher, 1994) was employed as a measure of an offenders' empathy for their victim. The VEDS measures empathy for an offender's own victim by assessing an offender's understanding and beliefs about how the victim felt about the sexual contact. The VEDS has two versions: the VEDS-OB for offenders with male victims; and the VEDS-OG for offenders with female victims. Please see Appendix S for a copy of the VES-OB and VES-OG. The VEDS-OB and VEDS-OG contain 30 items each with five possible responses, including a 'don't know' option. Each item is scored from zero to three and a total victim empathy error percentage score is calculated. Although there are no norms available for this scale, a higher percentage is indicative of higher deficits in victim empathy. The VEDS was found to have high internal and test-retest reliability (Beech, Fisher, & Beckett, 1999; Tierney & McCabe, 2001b) and its construct validity has been supported (Tierney & McCabe, 2001b).

The Screening Scale for Paedophilic Interest (SSPI: Seto & Lalumière, 2001) was also used. The SSPI is a brief screening scale designed to identify individuals likely to demonstrate paedophilic interests from phallometric testing. The SSPI consists of four items based on sexual offence history variables: male victims, more than one victim, any victim aged 11 years or younger and unrelated victims. If an

item is present, the participant receives a score of 1 on that item except for male victims where a score of 2 is assigned when this item is present. Therefore, scores may range from zero to five. Supportive of the SSPI's construct validity, it has been found that scores on the SSPI are positively and significantly correlated with the phallometrically measured Paedophilic Index (Seto & Lalumière, 2001; Seto et al., 2004). There is also support for the predictive validity of the SPPI, as research has indicated that there is a significant and positive correlation between scores on the SSPI and risk for sexual recidivism (Seto et al., 2004).

#### *6.12.3 Procedure*

The procedure for this study was the same as that reported for Study Three, except for the addition of the VEDS and SSPI. Offenders were interviewed with regard to victim demographics. In addition, participants' case file data pertaining to victim demographics was used to obtain information to score the SSPI. Where discrepancies for any SSPI item existed between offender self-report and case file data, the score for that item was based on official case file data.

#### *6.12.4 Design and Data Analysis*

Study Four utilised a single-factor between subjects design. For Analysis One, the between subjects factor was goal (Approach, Avoidant). For Analysis Two, the between subjects factor was strategy (Active, Passive). The dependent variables for both analyses were mean scores on the questionnaires and scales as well as categorical data for history of abuse. Data were analysed in the same manner as reported for Study Three and a significance criterion of 0.01 was adopted for all analyses.

### 6.13 Results

#### 6.13.1 Analysis One - Approach vs. Avoidant Goal

Chi-square analyses were performed to determine differences in the percentage of Approach and Avoidant offenders with a history of abuse. These results are displayed in Table 40. Although descriptively a higher percentage of Avoidant offenders than Approach offenders reported having been physically and sexually abused, this difference was not statistically significant.

**Table 40.** Continuity corrected chi-square comparisons (N = 12) of abuse history of Approach and Avoidant offenders.

Type of Abuse	% of Approach-goal offenders	% of Avoidant-goal offenders	$\chi^2$ (1)	p
Physical	44.4	100.0	1.0	ns
Sexual	44.4	100.0	1.0	ns

Unpaired t-tests were performed to examine differences in symptomatology mean *T* scores for Approach and Avoidant offenders. The results for these analyses are displayed in Table 41. Although the Avoidant group had higher scores on many of the scales and particularly on the Somatisation scale, these differences were small and, therefore, not statistically significant. Both groups obtained clinically significant scores for Interpersonal Sensitivity, Depression, Anxiety, Psychoticism and the Global Severity Index. Thus, both groups meet the index criteria for psychiatric caseness. However, it is evident from Table 41 that Avoidant offenders obtained a higher number of clinically significant scores when compared with Approach Offenders. Unlike Approach offenders, Avoidant offenders reported

clinically significant levels of symptomatology for Somatisation, Obsessive-Compulsive, Phobic Anxiety, Paranoid Ideation, Positive Symptom Distress Index and Positive Symptom Total.

**Table 41.** Unpaired t-tests for differences in symptomatology mean t-scores for Approach and Avoidant offenders as assessed by the SCL-90-R.

Scale	t (10)	p	Mean (SD)			
			Approach		Avoidant	
Somatisation	1.2	ns	58.6	(17.6)	71.3*	(9.5)
Obsessive-Compulsive	0.8	ns	61.3	(15.7)	69.3*	(13.2)
Interpersonal Sensitivity	0.3	ns	67.1*	(13.1)	69.3*	(12.0)
Depression	0.3	ns	66.0*	(15.5)	68.7*	(15.0)
Anxiety	0.5	ns	67.0*	(18.2)	72.7*	(14.4)
Hostility	0.7	ns	48.7	(11.8)	55.3	(22.1)
Phobic Anxiety	0.3	ns	58.1	(21.2)	63.3*	(28.9)
Paranoid Ideation	0.3	ns	61.9	(15.6)	65.3*	(16.6)
Psychoticism	0.7	ns	64.3*	(15.4)	70.7*	(9.3)
Global Severity Index	0.5	ns	68.0*	(14.9)	73.0*	(13.9)
P've Sympt. Distress Index	1.0	ns	61.3	(8.6)	67.7*	(11.5)
Positive Symptom Total	0.9	ns	61.2	(14.8)	70.0*	(13.0)

Notes: \*denotes clinical significance as indicated by a t-score of 63 or higher

Unpaired t-test comparisons were made of differences in means scores between Approach and Avoidant offenders on the questionnaire and scale measures. The results for these comparisons are displayed in Table 42. Avoidant offenders had



higher mean scores than Approach offenders on each of the Hare-PSAN dimensions of psychopathy, with the difference between groups being significant for the Lifestyle scale. Avoidant offenders also had higher mean scores, not statistically significant, on measures assessing sexual functioning problems (MSI critical items), likelihood of paedophilic interests (SSPI), sexual excitation and sexual inhibition, and victim empathy error.

**Table 42.** Unpaired t-test comparisons of differences between Approach and Avoidant offenders in mean scores on questionnaire measures and scales.

Questionnaire/ scale	T	df	p	Mean (SD)			
				Approach		Avoidant	
MSI - 8 critical items	1.8	10	ns	1.1	(1.9)	3.3	(1.5)
MC:C	0.3	9	ns	7.4	(3.8)	6.7	(1.5)
SSPI	1.2	10	ns	3.2	(1.4)	4.3	(1.2)
Hare-PSCAN							
Interpersonal	1.8	10	ns	6.7	(3.2)	10.7	(3.8)
Affective	0.9	10	ns	12.8	(4.2)	15.0	(1.0)
Lifestyle	3.3	10	<.01	10.7	(5.0)	20.7	(1.5)
Total	2.4	10	.03	9.9	(3.7)	15.3	(1.5)
ABCS	0.1	9	ns	118.5	(17.2)	119.7	(13.1)
VES	0.6	10	ns	55.0	(17.7)	64.0	(33.6)
SES/SIS							
SES	1.2	9	ns	40.4	(9.4)	48.0	(7.9)
SIS1	1.7	9	ns	31.6	(5.9)	37.7	(3.1)
SIS2	0.8	9	ns	33.0	(5.0)	35.7	(4.5)

There were minimal differences between the two groups in mean scores for social desirability in responding (MC-C) and cognitive distortions regarding sex between adults and children (ABCS).

Unpaired t-tests were performed to compare mean scores between Approach and Avoidant offenders for coping responses. Table 43 displays these results.

**Table 43.** Unpaired t-tests for differences in coping response mean scores for Approach and Avoidant offenders as assessed by the COPE inventory.

Scale	t (10)	p	Mean (SD)			
			Approach		Avoidant	
Positive reinterp. and growth	0.8	ns	10.4	(3.0)	8.7	(5.0)
Mental disengagement	0.3	ns	8.4	(1.9)	8.0	(4.4)
Venting of emotions	1.0	ns	7.7	(3.2)	10.0	(4.4)
Use instrumental support	0.2	ns	7.9	(3.8)	7.3	(4.2)
Active coping	2.2	.05	11.6	(2.4)	8.0	(2.6)
Denial	2.5	.03	6.6	(1.9)	10.0	(2.6)
Religious coping	1.6	ns	7.7	(3.9)	4.0	(0.0)
Humor	0.2	ns	6.3	(2.4)	6.0	(2.0)
Behavioural disengagement	0.9	ns	6.9	(2.1)	8.3	(3.5)
Restraint	1.1	ns	9.6	(3.8)	7.0	(2.6)
Use emotional social support	0.2	ns	7.6	(4.5)	7.0	(3.5)
Substance use	0.3	ns	6.7	(4.5)	7.7	(6.4)
Acceptance	0.9	ns	12.0	(1.6)	10.3	(5.7)
Suppres. competing activities	0.2	ns	8.9	(2.8)	9.3	(5.0)
Planning	2.4	.04	12.2	(3.2)	7.0	(3.6)

There was a trend for Approach offenders to demonstrate more functional coping responses such as planning and active coping when compared with Avoidant offenders who scored higher on dysfunctional coping responses such as denial.

#### 6.13.2 Analysis Two – Active vs. Passive Strategy

Chi-square comparisons were made of the percentage of Active and Passive offenders reporting a history of physical and sexual abuse. As shown in Table 44, a similar percentage of Active and Passive offenders reported a history of abuse.

**Table 44.** Continuity corrected chi-square comparisons (N = 12) of abuse history between Active and Passive offenders.

Form of Abuse	% Active	% Passive	$\chi^2 (1)$	p
Physical	50.0	60.0	0.3	ns
Sexual	50.0	60.0	0.3	ns

Unpaired t-tests of differences in symptomatology mean t-scores between Active and Passive offenders were performed. These results are displayed in Table 45. There was a trend for Active offenders to have higher scores on each of the symptomatology scales as well as the global indices, with scores on each of the scales indicative of clinical significance. Passive offenders obtained clinically significant scores on Depression, Anxiety, Psychoticism and the Global Severity Index. Both groups met the criteria for psychiatric caseness.

**Table 45.** Unpaired t-tests for differences in symptomatology mean t-scores for Active and Passive offenders as assessed by the SCL-90-R.

Scale	t (10)	p	Mean (SD)			
			Active		Passive	
Somatisation	1.1	ns	73.0*	(11.3)	59.5	(17.0)
Obsessive-Compulsive	2.1	ns	81.0*	(0.0)	59.8	(13.8)
Interpersonal Sensitivity	1.8	ns	81.0*	(0.0)	65.0	(11.8)
Depression	1.6	ns	81.0*	(0.0)	63.8*	(14.5)
Anxiety	1.2	ns	81.0*	(0.0)	65.9*	(17.6)
Hostility	1.8	ns	65.0*	(8.5)	47.4	(13.3)
Phobic Anxiety	1.2	ns	76.0*	(7.1)	56.1	(22.6)
Paranoid Ideation	2.2	ns	81.0*	(0.0)	59.1	(13.8)
Psychoticism	1.8	ns	80.5*	(0.7)	63.0*	(13.5)
Global Severity Index	1.3	ns	81.0*	(0.0)	66.9*	(14.5)
P've Sympt. Distress Index	2.9	.01	76.5*	(6.4)	60.2	(7.2)
Positive Symptom Total	0.6	ns	69.5*	(12.0)	62.2	(15.0)

Notes: \* denotes clinical significance as indicated by a t-score of 63 or higher

Unpaired t-test comparisons were made of differences in mean scores between Active and Passive offenders on the questionnaire and scale measures. The results for these comparisons are presented in Table 46. The two groups obtained similar mean scores for measures assessing sexual functioning problems (MSI critical items), cognitive distortions (ABCS), overall psychopathy characteristics (Hare-PSCAN total), the Lifestyle dimension of psychopathy, and sexual inhibition due to the threat of the consequences of performance (SIS2). Although Passive

offenders had higher mean scores than Active offenders on social desirability (MC-C) and the Affective dimension of psychopathy, these differences were not significant.

**Table 46.** Unpaired t-test comparisons between Active and Passive offenders in mean scores on questionnaire measures and scales.

Questionnaire/ scale	T	df	p	Mean (SD)			
				Active		Passive	
MSI 8 critical items	0.2	10	ns	2.0	(1.4)	1.6	(2.2)
MC:C	2.0	9	ns	3.5	(2.1)	8.0	(3.0)
SSPI	1.1	10	ns	4.5	(0.7)	3.3	(1.4)
Hare-PSCAN							
Interpersonal	1.8	10	ns	11.5	(4.9)	6.9	(3.1)
Affective	1.2	10	ns	10.5	(4.9)	13.9	(3.5)
Lifestyle	0.2	10	ns	14.0	(11.3)	13.0	(5.8)
Total	0.3	10	ns	12.0	(7.1)	11.1	(3.8)
ABCS	0.6	9	ns	125.0	(7.1)	117.4	(16.8)
VES	2.1	10	ns	82.5	(10.6)	52.2	(19.2)
SES/SIS							
SES	1.5	9	ns	51.0	(8.5)	40.6	(8.8)
SIS1	2.3	9	=.05	40.5	(0.7)	31.7	(5.1)
SIS2	1.7	9	ns	38.5	(2.1)	32.7	(4.6)

In contrast, although not statistically significant, Active offenders had higher mean scores for victim empathy error (VES), the Interpersonal dimension of psychopathy, Sexual Excitation (SES), and sexual inhibition due to threat of performance failure (SIS1). Furthermore, there was a clinically meaningful but not statistically significant difference between the two groups on the SSPI, whereby the Active offenders demonstrated a high likelihood of displaying paedophilic interests by scoring 4.5 out of a possible maximum of 5.0.

Unpaired t-tests comparisons of mean score differences between Active and Passive offenders on coping responses were performed. The results for these comparisons are displayed in Table 47. As demonstrated by Table 47, there were minimal differences between Active and Passive offenders in mean scores for functional and dysfunctional coping responses.

**Table 47.** Unpaired t-tests for differences in coping response mean scores for Active and Passive offenders as assessed by the COPE inventory.

Scale	t (10)	p	Mean (SD)			
			Active		Passive	
Positive reinterp. and growth	0.9	ns	8.0	(5.7)	10.4	(3.1)
Mental disengagement	0.2	ns	8.0	(4.2)	8.4	(2.4)
Venting of emotions	0.8	ns	10.0	(4.2)	7.9	(3.4)
Use instrumental support	1.4	ns	4.5	(0.7)	8.4	(3.7)
Active coping	1.6	ns	8.0	(4.2)	11.2	(2.4)
Denial	1.3	ns	9.5	(3.5)	7.0	(2.3)
Religious coping	1.2	ns	4.0	(0.0)	7.3	(3.8)
Humor	0.5	ns	7.0	(4.2)	6.1	(2.0)

Behavioural disengagement	1.5	ns	9.5	(3.5)	6.8	(2.1)
Restraint	0.1	ns	9.0	(5.7)	8.9	(3.5)
Use emotional social support	1.1	ns	4.5	(0.7)	8.0	(4.3)
Substance use	0.3	ns	8.0	(5.7)	6.7	(4.8)
Acceptance	1.1	ns	9.5	(7.8)	12.0	(1.5)
Suppres. competing activities	1.5	ns	6.0	(2.8)	9.6	(3.0)
Planning	1.7	ns	7.0	(4.2)	11.7	(3.6)

#### 6.14 Discussion

The aim of the current study was to examine postulated differences between the Self-Regulation model's (Ward & Hudson, 1998a, 2000a) pathway offenders in variables indicative of treatment need. However, there were some noteworthy limitations in the present study that made comparisons between pathway offenders practically difficult. Most importantly, the comparisons between subtypes of pathway offenders were problematic, as they relied on particularly small numbers. Furthermore, to reduce the type 1 error rate associated with conducting multiple t-tests and chi-square analyses, a more stringent alpha level of .01 was selected in determining the statistical significance of differences. In view of this, it is unlikely that the present study would have sufficient power to detect significant differences between pathway offenders. The adoption of this more stringent alpha level did not substantially alter the outcome of the results. Therefore, it is important to emphasise here that interpretations of the results will be limited to describing what was observed in the present sample of child sex offenders.

Notwithstanding the abovementioned limitations, the following discussion will focus on describing the pattern of results obtained for the present sample of

offenders. In relation to Analysis One, the pattern of results obtained provided mixed support for the hypotheses pertaining to differences between Approach and Avoidant offenders. Consistent with expectations, Avoidant offenders demonstrated higher scores on traits of psychopathy and most notably scored significantly higher on the Lifestyle scale of the Hare P-SCAN than did the Approach Offenders. Furthermore, there was a trend in which the Avoidant offenders reported higher usage of dysfunctional coping as well as lower usage of functional coping strategies.

However unexpectedly, although not statistically significant, Avoidant offenders obtained a meaningfully higher score on the SSPI measure of likelihood of paedophilic interests. Approach offenders mean score of 3.2 on the SSPI was similar to the mean score of 2.8 obtained by an independent sample of child sex offenders (Seto & Lalumière, 2001). In contrast, the mean score of 4.3 obtained by Avoidant offenders in the present sample is comparatively high given that the maximum score obtainable on the SSPI is 5.0.

In further conflict with expectations, Avoidant offenders also presented as a group with comparatively higher levels of general psychological symptomatology. Also inconsistent with expectations, the two groups reported similar levels of cognitive distortions and victim empathy distortions. As noted previously, the higher levels of psychological symptoms observed in the present sample of child sex offenders may be indicative of the lack of treatment received by offenders in the present sample. Alternatively, the relatively higher levels of psychological symptomatology may ensue from the 100 percent prevalence of both physical abuse and sexual abuse reported by the current sample of Avoidant pathway offenders.

Avoidant offenders, by means of following pathways characterised by under-regulation (Ward & Hudson, 1998a, 2000a), were expected to report more frequent use of dysfunctional coping responses and less frequent use of functional coping



responses compared with Approach offenders. The present results provide limited support for this hypothesis, as these differences between groups did not reach statistical significance.

The Self-Regulation model proposes that Avoidant offenders display poor coping ability and low self-regulation whereas Approach offenders are not characterised by coping and self-regulation difficulties (Ward & Hudson, 1998a, 2000a). Again the present results provide weak support for this description, as there was a trend whereby offenders with avoidant goals in the present sample less frequently utilised positive coping strategies involving active coping and planning and reported higher usage of denial when compared with Approach goal offenders. However, this pattern of results did not reach statistical significance and given the limitations noted in sample size and statistical power, the reliability of these results is questionable. Further replication studies are required to ascertain the robustness of these findings.

Providing some support for the conceptualisation of Avoidant pathways to offending, the present sample of Avoidant offenders demonstrated higher traits of psychopathy on the lifestyle dimension of the Hare P-SCAN. The lifestyle dimension of the Hare P-SCAN reflects traits such as impulsivity and generally irresponsible behaviour. Thus, it is clear that this dimension of psychopathy aptly describes Avoidant pathways to offending, as such pathways are characterised by self-regulation deficits. These results were not explicitly proposed by the Self-Regulation model but are not inconsistent with the Self-Regulation model's depiction of Avoidant pathways to offending. The Self-Regulation model describes avoidant pathways to offending as involving predominantly negative affect and researchers have drawn parallels between negative affect pathways and the general criminal/anti-social pathway to offending (Doren, 2004b; Roberts et al., 2002). The

present results suggest that although the current Avoidant offender participants are unlikely to be psychopathic, they do demonstrate higher traits of lifestyle instability relative to the Approach offenders. Given that research has shown sex offences committed by psychopaths are associated with thrill-seeking motivations (Porter et al., 2001), it is plausible that the present sample of Avoidant offenders are driven by impulsivity and a need for stimulation that may be expressed in sexual offences when opportunities arise.

However, despite Avoidant pathways being likened elsewhere with the general criminal/anti-social dimension of risk (Doren, 2004b; Roberts et al., 2002), the present sample of Avoidant offenders appeared to also be driven by high levels of deviant sexual arousal. Unexpectedly, Avoidant offenders' scores on the SSPI indicated they had a reasonably high likelihood of demonstrating paedophilic interests from phallometric testing. It is likely that the present sample of Avoidant offenders would pose a greater likelihood for sexual recidivism, given that deviant sexual arousal is highly predictive of sexual recidivism (e.g., Rice, Harris, & Quinsey, 1990; Rice et al., 1991; Serin et al., 2001; Seto et al., 2004). The mean score for the SSPI among a large sample of child sex offenders (Seto & Lalumière, 2001) was 2.80 (SD = 1.40) indicating that the present mean score of 4.30 (SD = 1.20) for Avoidant offenders on this scale was particularly high.

This result was unexpected given the Self-Regulation model's proposal that Approach pathways to offending are characterised by high levels of deviant sexual arousal (Ward & Hudson, 1998a, 2000a). Nonetheless, the mean scores of Avoidant and Approach offenders in the present study did not differ significantly on the SPPI. It is plausible that in the present sample, the Avoidant pathway may be characterised by lifestyle instability traits of psychopathy as well as deviant sexual arousal whereas the Approach pathway is primarily associated with the deviant sexual arousal

pathway to offending. However, if this was the case, the Approach group would most likely demonstrate higher deviant sexual arousal and, hence, higher scores on the SPPI. Thus, the present results suggest that the Self-Regulation model's predictions regarding deviant sexual arousal do not hold true for the present sample of Approach goal offenders. A possible explanation for this discrepant finding is the unexpected and unusually high rate of physical and sexual victimisation of the Avoidant offenders. Theories have linked childhood sexual victimisation with subsequent masturbation to deviant sexual fantasies and development of deviant sexual interests (e.g., Marshall & Marshall, 2000). It is possible that due to the small number of Avoidant offenders in the present sample, the apparent link between their abuse history and likely paedophilic interests may not be representative. Indeed, the present sample of child sex offenders is small and is unlikely to be representative of larger sample of child sex offenders.

In addition, the present results suggest that Avoidant pathways in the present sample of offenders are associated with greater psychological symptomatology. The present results are consistent with previous research in indicating that child sex offenders are generally characterised by considerable psychopathology (Ahlmeyer et al., 2003; Bogaerts et al., 2004), as both Approach and Avoidant offenders met the criteria for psychiatric caseness. Both Approach and Avoidant offenders obtained clinically significant scores on Interpersonal Sensitivity, Depression, Anxiety and Psychoticism. However, in addition, Avoidant offenders obtained clinically elevated profiles on a range of other psychological symptoms. Nonetheless, it is important to acknowledge that clinically significant scores on the SCL-90-R, as used in the present study, are not synonymous with clinical diagnosis and the SCL-90-R is purely a screening tool.

Descriptively the Avoidant group reported a 100 percent prevalence rate of physical and sexual abuse. Estimated incident rates of childhood sexual abuse among sex offenders vary from zero to sixty-six percent (Hanson & Slater, 1988). Therefore, the incident rate of 100 percent in the avoidant group is abnormally high. Research would suggest that this unusually high rate of abuse may account for the wide ranging psychological symptoms observed in the present sample of Avoidant offenders (e.g., see Johnson, 2004).

The present results suggest that although both Approach and Avoidant offenders in the present sample would experience difficulties with treatment due to relatively higher levels of psychological symptomatology (Kear-Colwell & Boer, 2000; Raymond et al., 1999), Avoidant offenders would have greater difficulties to overcome. The present sample of Avoidant offenders, by virtue of being characterised by broad psychological symptomatology, coping deficits, higher likelihood of deviant sexual interest and higher scores for lifestyle instability traits of psychopathy, would supposedly be less responsive to treatment. However, these comparisons between pathway offenders, as noted elsewhere, should be interpreted with considerable caution given the small sample size and low statistical power of the analyses conducted.

In contrast to the present findings suggesting the offenders with Avoidant goals would be less responsive to treatment, the Self-Regulation model suggests that offenders with Approach goals would be less responsive to treatment given that that their offences are driven by cognitive and empathy deficits as well as problematic general values and beliefs (Hudson & Ward, 2000). However, Approach and Avoidant offenders did not differ significantly in cognitive distortions regarding sex between adults and children and in empathy for their own victims. Given the limitations of the present study, the basis for these unexpected findings is unclear and

it is plausible that they may simply reflect the problems with sample representativeness and low statistical power noted elsewhere.

There are two plausible explanations pertaining to sample representativeness that may account for the unexpected findings. The first possible explanation may reflect the fact that the Avoidant group appeared to be unrepresentative with regard to abuse history. Sexual abuse is associated with a range of psychological difficulties (e.g., see Johnson, 2004) and these difficulties in sex offenders are proposed to account for deficits in empathy and cognitive distortions (Ahlmeyer et al., 2003). Thus, it is plausible that the abuse history of Avoidant offenders may be accountable for the unexpectedly wide range of psychological symptoms and deficits exhibited by these offenders in the present sample.

A second possible explanation is that the current sample may be more deviant or may present with greater treatment needs than samples employed in previous comparable research. Indeed, the present sample's combined mean score of 3.9 on the SSPI is considerably higher than the mean score of 2.8 obtained by Seto and Lalumière's (2001) sample of child sex offenders. This suggests that the present sample of child sex offenders may be comparatively high on sexual deviance. Furthermore, the present sample of Offenders, as a combined group, met the criteria for psychiatric caseness and demonstrated significantly greater symptomatology when compared with Controls. However, as was discussed previously, research has consistently indicated that child sex offenders demonstrate markedly greater psychopathology compared with non-offending controls (Ahlmeyer et al., 2003; Bogaerts et al., 2004). Thus, it is more plausible that the present sample of child sex offenders represent a more extreme group with regard to psychological symptomatology and cognitive as well as empathy deficits.

To ascertain whether the present sample appear to be unusually high with regard to symptomatology and empathy and cognitive distortions, the present findings may be compared with those in comparable studies. The most appropriate study to use as a standard of comparison is Bickley and Beech's (2002) study, as this study tested the predictions of the Self-Regulation model and indicated that Approach offenders demonstrated higher cognitive distortions and empathy deficits. The demographic characteristics of the present sample and Bickley and Beech's sample of child sex offenders are summarised in Table 48.

**Table 48.** Comparison of demographic characteristics between the present sample and Bickley and Beech's (2002) sample of child sex offenders.

<b>Demographic</b>	<b>*Present sample</b>	<b>Bickley and Beech's sample</b>
Sample size	N = 12	N = 87
Mean Age in years ( <i>SD</i> )	54.8 (13.1)	39.5 (12.6)
Treatment status (untreated/treated)	Untreated	Treated
Victim relationship (% of sample)		
Extra-familial only	75.0	62.0
Intra-familial only	8.0	15.0
Extra- and intra-familial	17.0	23.0
Victim sex (% of sample)		
Exclusively male	42.0	36.0
Exclusively female	50.0	33.0
Male and female	8.0	31.0

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Pathway classifications (% sample)		
Approach / Avoidant	75 / 25	80 / 20
Active / Passive	17 / 83	56 / 44
Classification inter-rater reliability		
Percentage agreement	91.0	81.0
Cohen's kappa	0.75	0.71

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Notes: \* Figures for the present sample were reported in Studies One and Two

It is evident that the present sample of child sex offenders are comparable in demographic to those examined by Bickley and Beech (2002). However, a noteworthy exception is that Bickley and Beech's sample of offenders were involved in a community-based treatment program whereas the present sample was comprised of untreated and predominantly incarcerated offenders. In addition, it is worthy of mention that offenders diagnosed with a major clinical disorder such as psychosis were excluded from the Bickley and Beech's (2002) sample. Thus, it is plausible to suggest that the present sample of child sex offenders was more likely to be relatively high in symptomatology and, by virtue of being untreated, would likely demonstrate greater cognitive distortions and deficits in empathy.

A direct comparison with Bickley and Beech's (2002) data pertaining to cognitive distortions is not possible as different measures of cognitive distortions were employed. Bickley and Beech (2002) employed Beckett's (1987 as cited in Bickley & Beech) Children and Sex Cognitions Scale which, like the Abel and Becker Cognition Scale, measures distorted views of children's sexuality and beliefs regarding the appropriateness of sexual contact with children. Nonetheless, Bickley and Beech found that Approach offenders scored significantly higher on this measure

of cognitive distortions when compared with Avoidant offenders. The present lack of difference between Approach and Avoidant offenders in cognitive distortions is unlikely to be accounted for by the different measures of cognitive distortions employed in Bickley and Beech's study and the present study, as the two scales employed both measure general cognitive distortions regarding children's sexuality.

The scores obtained on the ABCS for the current sample were remarkably similar to the scores obtained on this measure by another sample of Australian child sex offenders (Tierney & McCabe, 2001b). This comparison in cognitive distortions implies that the current sample was not particularly deviant. However, Tierney and McCabe's sample of child sex offenders also were incarcerated and had not received treatment for their behaviour. Thus, the present findings and comparisons converge on indicating that the present sample was likely to be relatively high in psychological symptomatology and, by virtue of being untreated, exhibited relatively high levels of cognitive and empathy distortions.

Indeed, the present sample of child sex offenders appeared to demonstrate higher victim empathy deficits when compared with Bickley and Beech's (2002) sample. The Victim Empathy Distortions Scale was employed in both Bickley and Beech's study and the present study. Comparisons between mean scores obtained on the VEDS in the present research and in Bickley and Beech's research (2003) indicated that the present sample of child sex offenders demonstrated substantially greater victim empathy distortions. With regard to Approach offenders, the mean score on the VEDS for the present sample was 55.0 (SD = 17.7) compared to 30.3 (SD = 20.1) in Bickley and Beech's sample. In contrast, for Avoidant offenders, the mean score on the VEDS in the present study was 64.0 (SD = 33.6) compared to 12.9 (SD = 10.4) in Bickley and Beech's sample. Therefore, the findings strongly suggest that the present sample of child sex offenders is not representative of larger samples



of child sex offenders, as they are characterised by high levels of psychological symptomatology.

Nevertheless, this discussion has not yet considered the degree to which the present findings are consistent with the Self-Regulation model's predictions regarding Active and Passive strategy pathways to sex offending. Hypotheses derived for the second analysis regarding Active and Passive offenders were relatively tentative given the inconsistency in previous comparisons of Active and Passive offenders with regard to treatment variables of interest (Bickley & Beech, 2002). Due to both limited sample representativeness and low statistical power for the analyses conducted, tentative support was obtained for the hypotheses pertaining to these pathways to offending.

As hypothesised, and consistent with previous research (Smallbone & McCabe, 2003), the two groups did not differ with regard to incidences of abuse history and both groups reported incidences of abuse that were noticeably higher to those reported by Controls in Study Three. In addition, both groups demonstrated relatively higher rates of psychopathology that met the criteria for psychiatric caseness. As expected, the present sample of Active and Passive offenders demonstrated similarities with regard to level of cognitive and victim empathy distortions, frequency of use of differing coping responses, and traits indicative of psychopathy.

However, unexpectedly, the present group of Active strategy offenders was highly and broadly symptomatic with clinically significant levels of symptomatology on each of the scales of the SCL-90-R. Also unexpectedly, Active strategy offenders demonstrated a high likelihood of paedophilic sexual interests as indicated by their mean score of 4.5 on the SSPI. Thus, although not predicted, the present sample of

Active strategy offenders presented as being more broadly symptomatic and deviant as well as more likely concerned with performance failure.

Consistent with this study's hypothesis that the goal of the offender would determine the level of cognitive distortions and victim empathy error, there was no significant difference between Active and Passive offenders in cognitive distortions regarding sex between adults and children or in empathy for their own victims. Additionally, the present results demonstrated a similarity in the coping responses of Active and Passive offenders. Thus, the present findings converge on indicating that the present sample of Active and Passive strategy offenders demonstrate similar treatment needs.

Bickley and Beech's (2002, 2003) findings were inconclusive with regard to distinctions or, lack thereof, in the treatment need of Active and Passive pathway offenders. Contradicting their expectations, Active and Passive offenders demonstrated similar levels of impulsivity and assertiveness. Nonetheless, consistent with descriptions of Passive pathway offenders, they were more likely to have an external locus of control. Passive offenders also were less likely to be in a relationship at the time of the offence and were more likely to have received a prior conviction. Combined, these findings suggest that Passive pathway offenders would represent a greater risk for sexual recidivism, as prior offence history and relationship status have been demonstrated to be predictive of sexual recidivism (Hanson & Bussière, 1996, 1998). Research has not yet directly tested the risk implications of the Self-Regulation model's pathways to offending and, thus, the proceeding studies will examine differences between the present sample of pathway subtypes in recidivism risk.

The results of Analysis Two suggest that the present sample of Active and Passive pathway offenders may differ in treatment need. Inconsistent with this

study's hypothesis, there was a trend in which Active offenders presented as being more broadly symptomatic than Passive offenders. Active offenders obtained clinically significant scores on each of the scales of the SCL-90-R indicating that, in addition to meeting the criteria for psychiatric caseness, they were considerably clinically disordered. Nonetheless, it is important to acknowledge that clinically significant scores on the SCL-90-R, as used in the present study, are not synonymous with clinical diagnosis and the SCL-90-R is purely a screening tool.

A practically meaningful difference between the two groups was obtained on the SSPI, whereby the Active offenders demonstrated a high likelihood of displaying paedophilic interests. The mean score obtained by Active offenders ( $M = 4.50$ ,  $SD = 0.70$ ) on the SSPI was noticeably higher than the mean score ( $M = 2.80$ ,  $SD = 1.40$ ) obtained from the norm group for the SSPI (Seto & Lalumière, 2001). Thus, although the present sample of Active offenders demonstrated a range of clinical problems, they specifically exhibited patterns indicative of deviant sexual arousal. These results suggest that, in contrast to the implications of Bickley and Beech's (2002) findings, the present sample of Active strategy offenders present as a subtype of offender in greater need of treatment and risk management interventions.

A plausible explanation for the unexpected findings in the present study may be that the present sample of child sex offenders is relatively high in symptomatology and cognitive distortions as well as associated deficits in victim empathy. The rationale for this explanation and its implications for the Self-Regulation model were previously discussed. In summary, the majority of the child sex offenders comprising the present sample were incarcerated and untreated at the time of testing. In addition, they exhibited relatively higher levels of victim empathy distortions when compared with Bickley and Beech's (2002) sample of child sex offenders. These findings are consistent with the observed higher levels of

psychological symptomatology in the present sample and converge on the notion that the present sample of child sex offenders may be described as being relatively high in symptomatology. Given this sample of child sex offenders is more pathological than previous samples of child sex offenders, it is likely that differences between groups would be minimal.

However, these results need to be interpreted with caution given the low numbers of participants ( $N = 12$ ), particularly in the Avoidant ( $n = 3$ ) and Active ( $n = 2$ ) pathway groups. Consistent with previous research (Bickley & Beech, 2002; Ward & Hudson, 1998a), the present research found that Approach offenders are more prevalent than Avoidant offenders. However, previous research (Bickley & Beech, 2002) has also indicated that Active offenders are more common than Passive offenders, which contradicts the proportions of these offenders in the current sample. Nonetheless, considerable confidence is placed in the accuracy of pathway classifications given there was substantial inter-rater reliability.

In addition to the issue of sample representativeness, it has been noted elsewhere that there was likely insufficient power in the statistical analyses performed to detect significant differences between groups. Therefore, many of the unexpected similarities in pathway offender characteristics may be attributed to this noted limitation rather than to the existence of real similarities between the groups. Clearly then, further research employing larger samples of child sex offenders would be needed to clarify the basis for these unexpected findings.

Moreover, caution should be exercised in interpreting these results given the self-report nature of the majority of measures used. Although not statistically significant, Passive offenders demonstrated higher scores than Active offenders on the MC:C suggesting a greater tendency towards socially desirable responding. However, when the present study's mean scores are compared with mean scores on

validated forensic samples (Andrews & Meyer, 2003), it is apparent that Passive offenders' scores were in the normal range. In contrast, Active offenders' scores were particularly low indicating that they had a tendency to present themselves in a more negative light. Nonetheless, as previously stated, scores on the MC:C did not differ significantly. Thus, it is reasonable to conclude that the present findings were not confounded by differences in social desirability response tendencies.

The following chapters will examine the risk for sexual recidivism in the present sample of child sex offenders. The recidivism risk of Approach and Avoidant goal offenders as well as Active and Passive strategy offenders will be compared. Consistent with the present findings, Avoidant and Active offenders are expected to demonstrate a higher risk for sexual recidivism. However, differences between groups may be minimal given the generally high levels of psychopathology observed in the present sample.